Smarter technology for all



Product Carbon Neutrality Report

For Fiscal Year 2024/25 2024 September

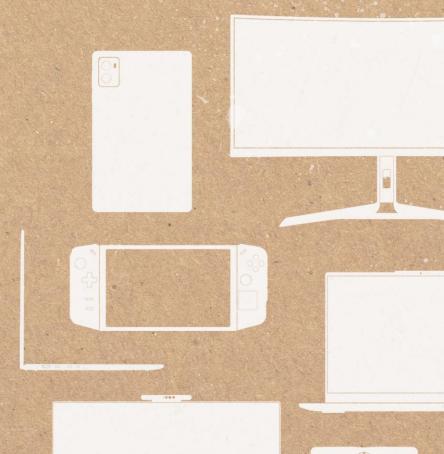


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Introduction

Introduction

Product Carbon Footprint

Carbon Reduction Offsetting Unabated Emission

Introduction

This Report aims to provide information on the carbon neutrality of the Lenovo Products advertised as carbon neutral (hereinafter referred to as the "Products") in Fiscal Year 2024/25¹.

The Report will be updated annually², in accordance with French Décret n° 2022-539 of 13 April 2022³ on carbon compensation and carbon neutrality claims in advertisements.

Lenovo declared to achieve carbon neutrality for the estimated sales volume for the Products. The Products' carbon neutrality was certified.

Table 1. Carbon Neutral Products and Specification

Carbon Neutral Products in Fiscal Year 2024/25

Yoga Slim 7 15ILL9 (for ROW)

YOGA Air 15s ILL9 (for PRC only) Yoga Slim 7 15ILL9 1 (for India only)

Carbon Neutrality Certification

Including the 65W adapter and retail packaging.

Carbon neutrality certification was issued by Bureau Veritas in accordance with PAS 2060:2014 Specification for the Demonstration of Carbon Neutrality.

Manufacturing

100% renewable electricity used in ODM's manufacturing



Carbon Neutral

Recycled Material

50% Recycled Aluminum on D Cover
90% PCC Recycled Plastic used in 65W 3Pin
Adapter Case
30% PCC Recycled Plastic used in Speaker
Woofer Enclosure
30% PCC Recycled Plastic used in Battery Pack
50% PCC Recycled Plastic used in Keyboard
Keycap

Plastic-free Packaging

100% FSC-certificated Paper used in Box, Screen Film, and Manual

Energy Efficiency

ENERGY STAR[®] 8.0 Energy measurement is 62% less than ENERGY STAR requirement

Product Carbon Footprint

Product Carbon Footprint

		Yoga Slim 7 15ILL9	More carbon neutral products coming soon !
Impact assessment for the PCF is analyzed by SimaPro and Ecoinvent Database, following IPCC 2021 GWP 100a method, in accordance with ISO 14067:2018	Product Carbon Footprint	Unit: kg CO2e/pcs	
Greenhouse Gases – Carbon Footprint of Products – Requirements and Guidelines for Quantification. Table 2. PCF Balance Sheet of the Products	Product Carbon Footprint before carbon credits	148.25	
	Carbon credits	148.25	
	Net Result	0	

Detailed information of the PCF calculation and carbon reduction methods is provided in Annex 1 and Annex 2. PCF of previous released products can be found in previous Product Carbon Neutrality Report <u>The Journey to Carbon Neutral</u> <u>Products (lenovo.com)</u>.

Product Carbon Footprint

Reduction

Offsetting Unabated

Emission

Carbon Reduction

Introduction

Product Carbon Footprint

Carbon Reduction

Implementing a corporate Climate and Energy Policy

Offsetting Unabated Emission

Carbon Reduction

Lenovo recognizes that human activities are contributing to climate change and concurs with the findings of current climate science as described in the latest assessment report from the Intergovernmental Panel on Climate Change (IPCC). Lenovo also recognizes that if left unchecked, current trends in climate change present serious economic and societal risks and agrees that specific actions are needed to stabilize atmospheric Greenhouse Gas (GHG) levels and hold global average temperatures to acceptable increases.

Lenovo is working both internally and externally to help minimize and mitigate climate risks, and the commitment has been demonstrated by (detailed information can be found in Lenovo Annual Environmental, Social and Governance (ESG) Report):



• Setting corporate-wide objectives and target which support the above Policy and Strategy⁴

Executing a long-term comprehensive Climate

Change Strategy aligned to validated SBTi net-zero

Detailed information of Lenovo's carbon reduction path is provided in Annex 2.

Offsetting Unabated Emission

Product Carbon Footprint

Carbon Reduction

Offsetting Unabated Emission

Lenovo has developed a stringent criterion to select carbon crediting programmes for unabated emission of the Products after carbon footprint reduction by environmentally conscious design.

Detailed information of the carbon crediting programmes is provided in Annex 3.



Product Carbon Footprint Evaluation

Annex 1 Product Carbon Footprint Evaluation

This Annex provides detailed information on the scope, functional unit, boundary, emission data and the methodological measures of the PCF.

Lenovo used life cycle assessment (LCA) methodology to perform the PCF calculation.

1.1 Scope

The Products were commercialized as SKUs (stock keeping unit) based on variation in the part configurations. The variation might result in difference in the PCF of different SKUs.

To ensure that Lenovo has fully achieved carbon neutrality for the Products, conservative approaches have been taken for PCF calculation.

1.2 Functional Unit

The PCF method relies on a "functional unit" (FU) for GHG emissions quantification. This Report defines the functional unit as the Products operating for 4 years.

1.3 System Boundaries

The system boundary considered in the PCF calculation was from cradle to grave, and the lifecycle stages included:

- Raw Material
- Manufacturing
- Distribution
- Use
- End of life

1.4 Cut-off Criteria

All inputs and outputs to a process have been included in the calculation for which data is available. The cut-off criteria were set that emission sources estimated to constitute less than 1% of the total PCF might be cut-off, and the total cut-offs constitute less than 5% of the total PCF.

Offsetting Unabated Emission

Annex 1 Product Carbon Footprint Evaluation

1.5 Use and End-of-life phases and Associated Process

The Use phase assumed that the Products were used for 4 years by users from different regions. The user region assumption was from sales prediction. The Product energy consumption was tested in accordance with ENERGY STAR Program Requirements for Computers Version 8.0.

The data of End-of-life phase was in accordance with *WEEE Directive 2012/19/EU* and *IEC TR 62635*, which included re-use, recycling, incineration and disposal.

1.6 Electricity Consumption Data

The electricity, tap water, natural gas and heat consumption through the lifecycle were considered, and Ecoinvent database was selected for calculation according to region, voltage level and gas pressure.

1.7 Geographical Scope

The Products (including subparts) were manufactured and assembled in Asia, distributed and used globally. Country-level or region-level emission factors were selected according to the locations where emissions occurred. When the factors were not available for a specific region or there was no specific location of emission sources, the global averages were selected.

Product Carbon Footprint

1.8 PCF Result

The PCF is shown in Section 2.

Offsetting Unabated

Emission

1.9 Verification

All the data sources, calculation modelling, background databases and the PCF have been verified by the certification authority⁵ of carbon neutrality.



Carbon Reduction Path

Annex 2 Carbon Reduction Path

In 2020, Lenovo established science-based emissions reduction targets, which were validated by the Science Based Targets initiative (SBTi). Its Scope 1 and 2 emissions reduction targets are consistent with limiting warming to 1.5°C, and its Scope 3 emissions reduction targets meet ambitious criteria according to the SBTi's methodology, which means they are in line with current best practices. In 2023, Lenovo announced SBTi validated target to reach netzero GHG emission by 2050. Lenovo's net-zero target is to achieve a 90-percentage reduction across Scope 1, 2 and 3 emissions, and was the first PC and smartphone maker and one of the first 139 companies in the world to establish a netzero target validated by SBTi⁶. These targets have a base year of Fiscal Year⁷ (FY) 2018/19, near-term target year of FY 2029/30, and net-zero target year of FY 2049/50. The following table details the Company's Science-Based Targets, road maps for their achievement, and progress against the targets in FY 2023/24⁸.

Reduction

Endnotes

Annex 2 Carbon Reduction Path

Table 3. Lenovo Emissions Reduction Targets and Road Map

Lenovo Emissions Reduction Near- Term Targets	Road Map	FY 2029/30 Target
Reduce absolute Scope 1 + Scope 2 GHG emissions (related to Lenovo's operations) by 50%	Hierarchical combination of energy efficiency, on-site renewable energy generation, and renewable energy commodities	- 50%
Reduce Scope 3 GHG emissions (value chain) from use of sold products ~35% on average for comparable Products	Reduce product emissions through energy efficiency improvements, engaging customers to use more renewable energy	- 35%
Reduce Scope 3 GHG emissions (supply chain) from procured goods and services 66.5% per million US\$ gross profit	 Inclusion of climate change requirements in Supplier Code of Conduct Supplier climate data collected annually from subset of suppliers Climate change KPIs included in supplier ESG scorecards (evaluation process) Expand supplier program to greater number of suppliers/ data capabilities and SBTi level of commitment 	- 66.5%
Reduce Scope 3 GHG emissions from global logistics operations by 25% per tonne-km of transported product	 Modal shift to lower carbon modes of transport Optimization of transport planning Increase of vehicle utilization Improvement of vehicle fuel efficiency 	- 25%
Lenovo Emissions Reduction Long- Term Targets	Road Map	FY 2049/50 Target
Reduce all GHG emissions by 90% - absolute reduction of Scope 1, 2 and 3 emissions. Neutralize remaining 10% of emissions through carbon capture, reforestation, or other means	Above concepts continue drive energy efficiency at Lenovo sites, for products, expand supplier program in commitment	- 90%

Product Carbon Footprint

Offsetting Unabated

Emission

Reduction

Annex 2 Carbon Reduction Path

The following table shows current Lenovo's GHG emission data in FY 2023/24, compared to the baseline year FY 2018/19.

Table 4. Lenovo Scope 1, 2 and 3 GHG Emission Data

Besides, Lenovo's corporate-wide environmental standards and specifications require its product designers to consider environmentally conscious design practices to facilitate and encourage recycling and minimization of resource consumption.

Product's environmentally conscious design is shown in Section 1.

GHG Emissions (metric tons CO2e)	FY2018/19	FY2023/24	
Scope 1+2 (market-based)	32,060	22,966	
Scope 3	20,432,492	15,100,063	



Offsetting and Carbon Credits

Product Carbon Footprint

Reduction

Offsetting Unabated Emission

Annex 3 Offsetting and Carbon Credits

Lenovo has developed internal Guidance for Carbon Credits Purchases, including following aspects to ensure the professionalism of suppliers and the integrity and effectiveness of carbon crediting programmes:



- General requirements as Lenovo supplier
- Carbon credit trading experiences
- Mature and mainstream crediting mechanisms
- Traceability and transparency of carbon credit projects
- High-quality and industry-recognized project types
- Carbon credit retirement documents

Annex 3 Offsetting and Carbon Credits

The following table shows the source of carbon credits used in the Products.

Table 5. Carbon Credit Project⁹

Crediting	Project Type	Offset Type	Location	Cost	Year of
Mechanisms ¹⁰				(€/ tCO2)	Retirement
CDM	Wind Power	Avoided Emission ACM0002	China	<10	2024

Lenovo has offset the unabated carbon emissions of the Products using carbon credits mentioned above based on the PCF values, and the carbon offsetting quantity and the retirement ID has been verified by the certification authority⁵ of carbon neutrality.

Carbon crediting programmes for previous released products can be found in previous Product Carbon Neutrality Report The Journey to Carbon

Neutral Products (lenovo.com).

Glossary

Carbon neutrality:

Referring to PAS 2060:2014 Specification for the Demonstration of Carbon Neutrality, is the state of being carbon neutral, i.e., condition in which during a specified period there has been no net increase in the global emission of greenhouse gases to the atmosphere as a result of the greenhouse gas emissions associated with the subject during the same period.

Product carbon footprint (PCF):

i.e., carbon footprint of a product, referring to ISO 14067:2018 Greenhouse Gases – Carbon Footprint of Products – Requirements and Guidelines for Quantification, sum of GHG emissions and GHG removals in a product system.

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uct Carbon Footprint

Carbon Reduction Offsetting Unabated Emission

Scope 1 GHG emission :

direct emissions from operations that are owned or controlled by Lenovo.

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Scope 2 GHG emission :

indirect emissions from the generation of purchased or acquired electricity, steam, heating or cooling consumed by Lenovo.

Scope 3 GHG emission :

indirect emissions (not included in Scope 2) from Lenovo's upstream and downstream value chain.

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Offsetting Unabated Emission

- 1. PAS 2060:2014 Specification for the Demonstration of Carbon Neutrality.
- ISO 14067:2018 Greenhouse Gases Carbon Footprint of Products Requirements and Guidelines for Quantification
- 3. ISO 14040:2006 Environmental management Life cycle assessment Principles and framework
- 4. ISO 14044:2006 Environmental management Life cycle assessment Requirements and guidelines
- 5. Lenovo Environmental, Social and Governance Report

FY 2024/25 Product Carbon Neutrality Report



Offsetting Unabated Emission

Fiscal Year. 2024/25, ie., April 1, 2024 – March 31, 2025

²Due to third-party review and translation reasons, the Report may be updated after the new product certified, Lenovo promises to release as soon as possible.

³Décret n° 2022-539 du 13 avril 2022 relatif à la compensation carbone et aux allégations de neutralité carbone dans la publicité - Légifrance (legifrance.gouv.fr)

⁴Environment, 2023/24 Environmental, Social and Governance Report

⁵Lenovo's carbon neutral products have been certified by major international certification authorities, including TÜV Rheinland Greater China, British Standards Institution and Bureau Veritas. Please refer to the product introduction page for specific product certification information.

⁶https://sciencebasedtargets.org/companies-taking-action#dashboard

⁷Fiscal year i.e., April 1 – March 3

⁸https://www.lenovo.com/content/dam/lenovo/site-design/esg-document-library/global/corp-policies/ghg/Lenovo_Climate-Transition-Plan.pdf

⁹Carbon credit sellers: Climate Bridge (Shanghai) Ltd.

¹⁰ The carbon credits selected by Lenovo are issued from the world's mainstream crediting mechanisms, including GS (Gold Standard), VCS (Verified Carbon Standard), CDM (Clean Development Mechanism) and CCER (Chinese Certified Emission Reduction).

FY 2024/25 Product Carbon Neutrality Report

Endnotes

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