



## LENOVO Ranking = 3.5/10 - 1 = 2.5/10

Lenovo moves up one place to 16th position, with the same score of 2.5 points. It remains encumbered by a penalty point imposed for backtracking on its commitment to eliminate PVC vinyl plastic and brominated flame retardants (BFRs) in all its products by the end of 2009.

Lenovo gains points for its new commitment to work towards the goal of phasing out the use of BFRs and PVC across all newly-introduced products in 2011. However, it loses points for failing to show support for improvements to the revised EU RoHS Directive (Restriction of Hazardous Substances in electronics); specifically, a methodology for further restrictions of hazardous substances, and an immediate ban on BFRs, chlorinated flame retardants (CFRs) and PVC. Lenovo has released a second model of a PVC and BFR-free monitor, which is available globally, (with the exception of PVC/BFR-free power cords which are not available in certain areas). However, this is not enough to score a point. It is rewarded for committing to the phase-out of beryllium (including alloys and compounds) and antimony and its compounds by 2012, but phthalates are still only reportable substances.

Lenovo reports a recycling rate of 2.16 percent of the weight of products shipped in 2007 and 7.74 percent of the weight of products shipped in 2000. However, almost 80 percent of that data is based on the amount of EU e-waste whose recycling was financed by Lenovo – by current market share – and may bear no relation to the amount of Lenovo branded e-waste actually recycled. Lenovo scores points for its relatively comprehensive voluntary take-back programme, for the information to individual customers in all the countries where take-back is provided and its use of recycled plastic.

On energy efficiency, Lenovo reports having all its ThinkPad models, with the exception of Celeron, non-Windows Operating Systems, and SL-series available in Energy Star 5.0, but needs to provide information on the compliance of all of its products with Energy Star as a percentage. Lenovo scores poorly on the other energy criteria; it discloses greenhouse gas emissions from global operations in 2007, although these are not externally verified.

## LENOVO Overall Score

	BAD (0)	PARTIALLY BAD (1+)	PARTIALLY GOOD (2+)	GOOD (3+)
Precautionary Principle and support for revision of RoHS Directive.				
Chemicals Management				
Timeline for PVC & BFR phaseout				
Timeline for additional substances phaseout				
PVC-free and/or BFR-free models <small>(companies score double on this criterion)</small>				
Individual producer responsibility				
Voluntary take-back				
Information to individual customers				
Amounts recycled				
Use of recycled plastic content				
Global GHG emissions reduction support				
Carbon Footprint disclosure				
Own GHG emissions reduction commitment				
Amounts of renewable energy used				
Energy efficiency of new models <small>(companies score double on this criterion)</small>				

# LENOVO Detailed Scoring

## Chemicals

Precautionary Principle and support for revision of RoHS Directive.	Chemicals Management	Timeline for PVC & BFR phaseout	Timeline for additional substances phaseout	PVC-free and/or BFR-free models (double points)
<b>PARTIALLY BAD (1+)</b>	<b>GOOD (3+)</b>	<b>PARTIALLY GOOD (2+)</b>	<b>PARTIALLY GOOD (2+)</b>	<b>BAD (0)</b>
Lenovo scores a point for its definition of the Precautionary Principle in its Sustainability Report 07/08, p47. However, Lenovo makes no mention of the need for RoHS 2.0 to adopt an end-of-life methodology for adding new substances and an immediate ban on organo-chlorine and bromine compounds (at least PVC, CFRs, and BFRs within 3-5 years). <b>More information here and pdf here.</b>	Lenovo's Engineering Specification 41A7731 reflects its commitments on eliminating PVC, BFRs, and beryllium, antimony and their compounds. <b>More information.</b> Select 'Product Content Restrictions' <b>here</b> and <b>pdf here.</b>	Lenovo now states that it is working towards the goal of phasing out the use BFRs and PVC across all newly introduced products in 2011. <b>More information.</b> Lenovo's original timeline for eliminating PVC and BFRs in all products was end of 2009. It subsequently backtracked on this commitment providing a timeline of 2010. This timeline has shifted further in time to 2011.	Antimony and beryllium and their compounds have a phase-out target date of 2012. Just three types of phthalates are listed as reportable substances, which may be candidates for further restrictions in the future. The threshold for reporting is 1000 ppm except for beryllium that is 200 ppm, due to the requirements of European recyclers. <b>More information. pdf file (p.17).</b>	Lenovo has released two PVC and BFR-free monitors, the <b>ThinkVision L2440x Wide</b> and ThinkVision L2251x Wide, which are available globally, (with the exception of PVC/BFR-free power cords which not available in certain geographies), and has completely phased-out the use of PVC/BFR in all mechanical plastic parts (such as external covers, housings, etc.) across all Lenovo product lines. <b>More information here and here.</b> In addition, Lenovo is running pilots of BFR-free printed circuit cards in select ThinkPad model notebooks. <b>More information. Lenovo's Environmental Data Sheets.</b> To score points Lenovo needs to bring out more models of monitors and PCs free of BFRs and PVC.

## E-Waste

Support for Individual Producer Responsibility	Provides voluntary take-back where no EPR laws exist	Provides info for individual customers on take-back in all countries where products are sold	Reports on amount of e-waste collected and recycled	Use of recycled plastic content in products - and timelines for increasing content
<b>PARTIALLY BAD (1+)</b>	<b>PARTIALLY GOOD (2+)</b>	<b>PARTIALLY GOOD (2+)</b>	<b>PARTIALLY BAD (1+)</b>	<b>PARTIALLY BAD (1+)</b>
Lenovo supports IPR legislation that allows manufacturers to recover their own brand products. However, for more points, Lenovo needs to clarify this means supporting differentiated/individualised financing for own-brand real end-of-life costs (e.g. no longer collective financing such as market share but instead more real and individualised financing such as return share) for WEEE, provide examples of where it is doing advocacy and details of operationalisation of IPR. <b>See Sustainability Report p. 49.</b>	Take-back is offered in 51 countries (of which 26 have voluntary take-back) where Lenovo sells products directly, but not in countries where re-sellers sell its products. Moreover, some take-back services are time-limited e.g. all those in Latin America. <b>More information here and here.</b> Product take-back has been extended in <b>India</b> and in <b>China</b> . Lenovo now has a free take-back programme in the US. <b>More information.</b>	Lenovo provides take-back information to both business and individual customers in countries where the company sells its products directly. Lenovo provides information to individual customers in all the countries where take-back is provided. <b>More information. Information about Lenovo's free take-back programme in the US.</b>	Lenovo recycled 2.16% of the weight of products shipped in 2007 and 7.74% of the weight of products shipped in 2000. The majority of this was EU e-waste for which Lenovo financed the recycling based on current market share. To earn more points Lenovo has to provide EU figures from own brand sampling of return rate, undertaken in at least one Northern EU country, one Southern EU country and one new Member State – and provide indications of how it intends to expand this sampling in the future. <b>See Sustainability Report p. 52 – 54.</b>	Recycled resins, ranging in recycled content from 10% to 50%, are used in a number of Lenovo hardware applications. In 2007/8, 1% of the total plastic used came from recycled sources. Lenovo's goal is to use 4% post consumer recycled plastics in 2008/2009. <b>See Sustainability Report p. 46-47.</b> Lenovo uses post consumer recycled content in over 25 different product lines. Since early 2008 Lenovo has used over 14 million pounds (gross) of plastic materials containing post-consumer content, with a net post-consumer content of four million pounds. <b>More information.</b>

## Energy

Support for global mandatory reduction of GHG emissions	Company carbon footprint disclosure	Commitment to reduce own direct GHG emissions	Amount of renewable energy used	Energy efficiency of New Models (double points)
<b>BAD (0)</b>	<b>PARTIALLY BAD (1+)</b>	<b>BAD (0)</b>	<b>BAD (0)</b>	<b>PARTIALLY BAD (1+)</b>
Lenovo does not refer to support for global mandatory reductions in GHG emissions. Lenovo needs to call for global GHG emissions to peak by 2015 and for industrialised countries as a group to accept mandatory cuts of at least 30% by 2020. It is disappointing that Lenovo has yet to make a statement on the need for mandatory reduction of GHG emissions. <b>More information. See Sustainability Report p 49.</b>	Lenovo reports GHG emissions of 73,566 metric tons from global operations in 2007; this includes scope 1 and 2 emissions, and scope 3 emissions from employee travel. No reference to external verification. <b>See Sustainability Report p 56 – 58.</b>	Lenovo has pledged to increase carbon efficiency by 10% by 2012 based on 2007 emissions. However, these reductions are not absolute. <b>More information. See Sustainability Report p 56.</b>	Lenovo estimates that over 10% of its total electricity usage comes from renewable sources, as the majority of its electricity usage is in China, where 17% of electricity comes from renewable sources. However, other than this, the percentage of renewable energy that Lenovo has invested in is not given and there is no global target for increasing its use. To score points on this criterion, Lenovo needs to report on renewable energy use sourced through its own efforts. <b>See Sustainability Report p 60.</b>	In June 2009, Lenovo announced that more than 25 of its Think-branded business and Idea-branded consumer PCs meet the new ENERGY STAR Version 5.0 standard; all Lenovo ThinkPad models with the exception of Celeron, non-Windows Operating Systems, and SL-series are available in ENERGY STAR 5.0 configurations; Some ThinkCentre M-series (M58, M58p) desktops, ThinkStation Workstations (D20, S20) are available in ENERGY STAR 5.0 configurations. To stay on one point Lenovo needs to provide this information as a percentage of its total product range. <b>More information.</b>

## Criteria on Toxic Chemicals

Greenpeace wants to see electronics companies clean up their act.

Substituting harmful chemicals in the production of electronics will prevent worker exposure to these substances and contamination of communities that neighbour production facilities. Eliminating harmful substances will also prevent leaching/off-gassing of chemicals like brominated flame retardants (BFR) during use, and enable electronic scrap to be safely recycled. The presence of toxic substances in electronics perpetuates the toxic cycle – during reprocessing of electronic waste and by using contaminated secondary materials to make new products.

The issue of toxicity is overarching. Until the use of toxic substances is eliminated, it is impossible to secure 'safe' recycling. For this reason, the points awarded to corporate practice on chemicals are weighted more heavily than criteria on recycling.

Although there are five criteria on both chemicals and waste, the top score on chemicals is 18 points, as double points are awarded for vinyl plastic-free (PVC) and BFR-free models on the market, whereas the top score on e-waste is 15 points.

The first criterion has been sharpened to require companies not only to have a chemicals policy underpinned by the Precautionary Principle, but also to support a revision of the RoHS Directive that bans further harmful substances, specifically BFRs, chlorinated flame retardants (CFRs) and PVC. The criterion on Chemicals Management remains the same. The criterion: BFR-free and PVC-free models on the market, also remains the same and continues to score double points.

The two former criteria: Commitment to eliminating PVC with timeline and Commitment to eliminating all BFRs with timeline, have been merged into one criterion, with the lower level of commitment to PVC or BFR elimination determining the score on this criterion.

A new criterion has been added, namely Phase out of additional substances with timeline(s). The additional substances, many of which have already been identified by the brands as suspect substances for potential future elimination are:

- (1) all phthalates,
- (2) beryllium, including alloys and compounds and
- (3) antimony/antimony compounds

## Criteria on e-waste

Greenpeace expects companies to take financial responsibility for dealing with the electronic waste (e-waste) generated by their products, to take back discarded products in all countries with sales of their products and to re-use or recycle them responsibly. Individual Producer Responsibility (IPR) provides a feedback loop to the product designers of the end-of-life costs of treating discarded electronic products and thus an incentive to design out those costs.

An additional e-waste criterion has been added and most of the existing criteria have been sharpened, with additional demands. The new e-waste criterion requires the brands to report on the use of recycled plastic content across all products and provide timelines for increasing content.

## Criteria on energy

The five new energy criteria address key expectations that Greenpeace has of responsible companies that are serious about tackling climate change. They are:

- (1) Support for global mandatory reduction of greenhouse gas (GHG) emissions;
- (2) Disclosure of the company's own GHG emissions plus emissions from two stages of the supply chain;
- (3) Commitment to reduce the company's own GHG emissions with timelines;
- (4) Amount of renewable energy used
- (5) Energy efficiency of new models (companies score double on this criterion)

**Click here to see more detailed information on the ranking**

## Ranking criteria explained

As of the 8th edition of the Guide to Greener Electronics, Greenpeace scores electronics brands on a tightened set of chemicals and e-waste criteria, (which include new criteria) and on new energy criteria.

The ranking criteria reflect the demands of the Toxic Tech campaign to electronics companies. Our two demands are that companies should:

- (1) clean up their products by eliminating hazardous substances; and
- (2) take-back and recycle their products responsibly once they become obsolete.

The two issues are connected: the use of harmful chemicals in electronic products prevents their safe recycling once the products are discarded.

Given the increasing evidence of climate change and the urgency of addressing this issue, Greenpeace has added new energy criteria to encourage electronics companies to:

- (3) improve their corporate policies and practices with respect to Climate and Energy

**Ranking regrading:** Companies have the opportunity to move towards a greener ranking as the guide will continue to be updated every quarter. However penalty points will be deducted from overall scores if Greenpeace finds a company lying, practicing double standards or other corporate misconduct.

**Disclaimer:** Greenpeace's 'Guide to Greener Electronics' aims to clean up the electronics sector and get manufacturers to take responsibility for the full life cycle of their products, including the electronic waste that their products generate and the energy used by their products and operations.

The guide does not rank companies on labour standards, social responsibility or any other issues, but recognises that these are important in the production and use of electronics products.

**Changes in ranking guide:** We first released our 'Guide to Greener Electronics' in August 2006, which ranked the 14 top manufacturers of personal computers and mobile phones according to their policies on toxic chemicals and recycling.

In the sixth issue of the Guide, we added the leading manufacturers of TVs – namely, Philips and Sharp – and the game console producers Nintendo and Microsoft. The other market leaders for TVs and game consoles are already included in the Guide.

In the eighth edition, we sharpened some of the existing ranking criteria on toxic chemicals and e-waste and added a criterion on each issue. We also added five new energy criteria. In this edition the criteria for the Precautionary Principle has been made more challenging.

For the latest version [greenpeace.org/greenelectronics](http://greenpeace.org/greenelectronics)

In versions 11 and 12 of the Guide, PC manufacturers HP, Dell and Lenovo were served a penalty point for backtracking on their commitment to eliminate vinyl plastic (PVC) and brominated flame retardants (BFRs) from their products from the end of 2009. The penalty point on HP was lifted in version 13; LGE was served a penalty point for backtracking on its timeline to eliminate PVC and BFRs in all its products by end of 2010. LGE, Dell and Lenovo continue to be penalised in this version and are joined by Samsung, who is served a penalty point for backtracking on its commitment to eliminate BFRs in new models of all products by January 2010 and PVC by end of 2010.