



## LENOVO Ranking = 4.5/10 - 1 = 3.5/10

Lenovo rises up the ranking to 14<sup>th</sup> position from 17<sup>th</sup>, with an increased score of 3.5, up from 1.9 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 has made significant progress on three of the energy criteria; it now supports the need for global emissions of greenhouse gases (GHGs) to peak by 2015, with a 30 percent reduction in emissions from industrialised countries by 2020 and a 50 percent reduction by 2050, relative to 1990; it has set its own targets for reducing GHG emissions, aiming to eliminate or offset its scope 1 emissions by 100 percent by April 2011 and achieve absolute reductions in scope 2 emissions, with progressive targets up to 20 percent by April 2020, relative to 2008/09; it also reports the percentage of its products that meet the latest Energy Star standards, with many of its products exceeding the standard. These new commitments are a significant boost to Lenovo's score, which was formerly just one point for disclosing greenhouse gas emissions from global operations in 2008, even though these have increased by 6 percent and are not externally verified.

Lenovo scores equally on both toxic chemicals and e-waste issues. 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. The company 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.

On e-waste issues, Lenovo offers take-back and recycling in 51 countries where Lenovo sells products directly, but not in countries where re-sellers sell its products. Information about this service to individual customers on what to do with their discarded PC is provided. Lenovo reports a recycling rate of 3.88 percent of the weight of products shipped in 2008 and 6.39 percent of the weight of products shipped in 2001. 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 also scores points for its use of recycled plastic; however it has no public target to increase its use further.

## 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 BAD (1+)</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 2009, p 43. However, Lenovo makes no mention of the need for RoHS 2.0 to adopt a ban on organo-chlorine and bromine compounds (at least PVC, CFRs, and BFRs within 3-5 years), as well as an end-of-life focused methodology for adding future substance restrictions. <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> (see end of page) 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 to 2011; progress towards this goal is demonstrated by the number of halogen-free components incorporated in several product lines.	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.</b> <b>pdf file (p.19).</b>	Lenovo has two completely PVC and BFR-free monitors, the ThinkVision L2440x Wide and ThinkVision L2251x Wide available globally, (except for PVC/BFR-free power cords in certain geographies). All mechanical plastic parts (such as external covers, housings, etc.) are PVC/BFR free in all products. Various models of ThinkPads contain halogen-free hard disk drives, optical disk drives, solid state drives, LCD screens, memory, CPUs and Intel communication cards. <b>More information here and here.</b> <b>'Choose Green, Choose Lenovo' brochure.</b> To score points Lenovo needs to bring out more whole product systems such as PCs and models of monitors 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 full internalisation and transparent feedback of its products real end-of-life costs, ie through differentiated financing that accounts for each brand separately (e.g. no longer collective financing such as market share but instead more real and individualised financing such as return share), provide examples of where it is doing advocacy and details of operationalisation of IPR. <b>See Sustainability Report p. 45.</b>	Take-back is offered in 52 countries (of which 22 have voluntary take-back) where Lenovo sells products directly, but not in countries where re-sellers sell its products. Lenovo also provides Asset Recovery Services for business customers. <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.</b> Lenovo provides <b>more details here</b> and <b>here</b> about take-back in the US.	Lenovo recycled 3.88% of the weight of products shipped in 2008 and 6.39% of the weight of products shipped in 2001. 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. 45-47.</b>	Over 16% (gross) of the total plastics used in all Lenovo products during the first half of 2010 contained recycled content, with net post-consumer content usage of approximately 6.5%. All Think Vision monitors contain post-consumer recycled content, which makes up over 30% net by weight in 2009. <b>More information.</b> Lenovo has achieved its target of 4% post consumer recycled plastics for monitors, desktops, servers and workstations in 2008/9. Although Lenovo has internal targets to increase its use of recycled plastic, these have not been published on its web-site. <b>See p. 41-42, 2009 Sustainability Report.</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>PARTIALLY GOOD (2+)</b>	<b>PARTIALLY BAD (1+)</b>	<b>PARTIALLY GOOD (2+)</b>	<b>BAD (0)</b>	<b>PARTIALLY GOOD (2+)</b>
Lenovo supports the need for global emissions of GHG to peak by 2015, a 30% reduction in emissions from industrialised countries by 2020 with a 50% reduction by 2050, relative to 1990. For maximum points, Lenovo needs to specify that reductions by industrialised countries should be at LEAST 30% by 2020. <b>More information.</b>	Lenovo reports GHG emissions of 82,163 metric tons from global operations in 2008; this includes scope 1 and 2 emissions, and scope 3 emissions from employee travel. This is an increase of 6% from 73,566 metric tonnes in 2007. No reference to external verification. <b>See Sustainability Report p 48-49.</b> Lenovo participated in a road test for a new global standard on life-cycle emissions of GHGs to account for emissions associated with individual products across their life-cycles. <b>More information.</b> Intertek verified Lenovo's assessment of the life-cycle impacts associated with its new Thinkcentre M90z desktop. <b>More information.</b>	Lenovo has new climate change objectives and targets; it aims to eliminate or offset scope 1 GHG emissions by 100% by 31/3/2011; it also has targets to achieve absolute reductions in scope 2 emissions, with progressive targets up to 20% by 31/3/2020, relative to 2008/09. <b>More information.</b> Absolute carbon emissions reduced by nearly 20% from 2008/9 to 2009/10. It has committed to match 2009/10 emissions during 2020/21. For maximum points Lenovo needs to provide more information on its targets in relation to its reduction of GHG emissions so far. <b>More information.</b>	Lenovo's purchase of RECs will be used to fund the construction of new renewable energy sources; 100% of its scope 1 emissions and up to 7% of scope 2 emissions will be offset by these purchases. However, Lenovo needs to present its target for increasing its use of renewable energy as a percentage of electricity use. <b>More information.</b> The purchase of local renewable energy sources is also associated with Lenovo's targets for absolute reduction of GHGs. <b>More information.</b> The majority of its electricity usage is in China, where 17% of electricity comes from renewable sources; as this is part of the national grid it does not contribute to Lenovo's score. <b>See Sustainability Report p 49.</b>	Lenovo reports that over 93% of all notebook platforms, 43% of desktop platforms, 92% of workstation platforms and 93% of monitors meet the latest Energy Star standards. Many of these products also exceed the standards; 75% of monitors exceed the standard by at least 10%, with 33% exceeding the ENERGY STAR energy criteria by at least 25%. <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 the fourteenth edition the criteria for the Precautionary Principle was made more challenging.

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

Toshiba, Samsung, LGE, Dell and Lenovo continue to be penalised in this latest version of the Guide for backtracking on their commitments to phase out vinyl plastic (PVC) and brominated flame retardants (BFRs). Toshiba is served with a further penalty point for misleading its customers and Greenpeace by not admitting that it would not meet its commitment. In addition, Microsoft is served with a penalty point for the first time for backtracking on its commitment to phase out PVC and BFRs by the end of 2010.