



LENOVO, 8th position, 3.8/10

Lenovo takes 8th place in the re-launch of the Guide; it benefits from the removal of the penalty point that was 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. While its current goal for new products in 2011 to be PVC/BFR free has not been completely met, Lenovo has launched a number of PVC/BFR free products, including notebooks and a desktop and many components are PVC/BFR free. On other **Products** criteria it scores well for its use of recycled plastics, where a slightly higher percentage of post-consumer plastics use would earn Lenovo maximum points. However, to score any points on product life cycle it needs to publicly disclose the length of warranty and spare parts availability for its main product lines. It reports on the percentage of products that meet and exceed the Energy Star standard, although this needs to be a higher percentage for more points. Lenovo risks a **penalty point** in future Guide editions as it is a member of a trade association that has commented against stringent energy efficiency standards; it needs to distance itself from such regressive positions with a strong statement.

On **Energy** Lenovo achieved its targets on greenhouse gas (GHG) emissions for financial year 2011, with Scope 1 emissions reduced by 17 percent and Scope 2 by 10 percent; it aims to establish new reduction targets by the end of 2012. It needs ambitious targets to reduce its own GHG emissions by at least 30 percent by 2015 for its operations and dramatically increase renewable electricity use by 2020. It has reduced its energy consumption through energy efficiency projects and has contracted to increase its use of renewable energy, although it needs to outline a detailed clean electricity plan. It scores maximum points for providing verified data on its GHG emissions and also scores a point on lobbying for a clean energy policy, for its support of a 30 percent reduction in emissions from developed countries by 2020.

Its best scores on **Operations** are for its e-waste take-back programme and reporting on the quantities recycled (although the amounts should be increasing rather than decreasing), and for its comprehensive chemicals management programme and policy. It is beginning the process of gathering data from its supply chain on GHG emissions and is collaborating to develop product carbon footprint protocols and tools that will promote energy reduction actions. On conflict minerals, Lenovo has not yet published or publicly mapped smelters or suppliers and does not yet have an internal policy, although it will support industry efforts in this area. Lenovo specifies the use of 'environmentally friendly packaging' but scores no points as it does not specifically exclude suppliers that are involved in deforestation and illegal logging or specify that its recycled fibres should be FSC certified.

LENOVO Overall Score

	ZERO	LOW	MEDIUM	HIGH
Disclose own operational GHG emissions				
GHG emissions reductions and targets				
Clean Electricity Plan (CEP)				
Clean Energy Policy Advocacy				
Product Energy Efficiency				
Avoidance of Hazardous Substances in Products				
Use of Recycled Plastic in Products				
Product Life-Cycle				
Measure and reduce energy consumption in the supply chain				
Chemicals Management and Advocacy				
Policy and practice on sustainable sourcing of fibres for paper				
Policy and practice on avoidance of conflict minerals				
Provides effective voluntary take-back where no EPR laws				

LENOVO Detailed Scoring

Energy

Disclose own operational GHG emissions	GHG emissions reductions and targets	Clean Electricity Plan (CEP)	Clean Energy Policy Advocacy
3/3	3/8	2/8	1/8
<p>Lenovo reports GHG emissions of 86,637 metric tons CO₂-e from global operations in 2010/11, a slight increase from 85,303 tons in 2009/10, due to an increase in its Scope 3 emissions for business travel. Emissions from both Scope 1 and 2 are reduced.</p> <p>Lenovo provides verification for the first time, for its 2009/10 and 2010/11 data, by Bureau Veritas, according to ISO 14064.</p> <p>More information.</p> <p>To keep these points Lenovo needs to provide more background information and analysis on the source of its GHG emissions (on its website or CR report).</p>	<p>Lenovo achieved its climate change objective and target to eliminate or offset scope 1 GHG emissions by 100% by 31/3/2011; Lenovo reduced Scope 1 GHG emissions by 16.5% relative to FY 2009/10 and purchased carbon offsets for the remainder. 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. It achieved its target to reduce absolute Scope 2 GHG emissions by 10.4 % relative to FY 2009/10. There are no specific targets for increasing use of renewable energy. Lenovo aims to reduce emissions associated with business travel and will establish reduction targets by 3/31/2012. Lenovo needs to make more ambitious targets and aim to reduce its own GHG emissions by at least 30% by 2015 for its operations and aim to dramatically increase renewable electricity use by 2020.</p> <p>More information.</p>	<p>Lenovo's plans to achieve its targets for Scope 2 emissions include: improving energy efficiency by installing energy efficient equipment and technologies and implementing Corporate energy use standards; installing local renewable energy generation sources where technically and economically feasible and, if not, purchasing renewable energy certificates; supporting increases in the percentage of renewable energy available from the grid. Lenovo gives examples of energy efficiency projects that led to 20% reduction in electricity consumption during 2009/10 and 2010/11. It has also purchased renewable energy in the US, equivalent to greater than 20% of the carbon emissions associated with Lenovo's purchased energy during FY 2009/10.</p> <p>More information.</p> <p>Lenovo provides a certificate for its purchase of RECs.</p>	<p>Lenovo supports the conclusions as presented by the Fourth Assessment Report (AR4) of the Intergovernmental Panel on Climate Change (IPCC) - "Climate Change 2007", including the capping of global emissions by 2015, a 30% reduction in emissions from developed countries by 2020 (relative to year 1990 levels), and a 50% reduction in global emissions by 2050 (relative to year 1990 levels). However, Lenovo needs to specify that reductions by industrialised countries should be at LEAST 30% by 2020. Lenovo is a supporter of several initiatives, internationally and in China, such as the PC China Energy Efficiency Standard, Server China Energy Efficiency Standard, China GHG Standard, China Environmental Labeling Program, Energy Saving Work Association of Chinese Institute of Electronics, and China Energy Conservation Program. More information.</p>

Greener Products

Product Energy Efficiency	Avoidance of Hazardous Substances in Products	Use of Recycled Plastic in Products	Product Life-Cycle
3/5	2/5	2/3	0/3
<p>Lenovo reports that approximately 95 percent of all notebook platforms, 50 percent of all desktop platforms, 92 percent of all workstation platforms and 95 percent of all monitors meet the latest Energy Star standards. All Lenovo newly released ENERGY STAR qualified Desktop and Notebook platforms, and Monitors exceed the current applicable ENERGY STAR power consumption requirements (by 25% to +60%). All Lenovo Class A EPS's meet and exceed US (e.g. Dept of Energy, California Appliance Efficiency Program, etc.) and WW (EU ErP, Australia MEPS, etc.) energy efficiency requirements. Lenovo provides a power management software tool, an energy calculator and links to a supplier of solar panels for its hardware. It participates in a number of industry workgroups focused on existing and proposed global IT product energy efficiency policy, regulation and requirements, such as ENERGY STAR, US DOE policy updates regarding battery charger and external power supplies, Mexico Energy Law, Australia MEPS, China CEC and a number of other emerging geo focused protocols and regulations.</p> <p>More information.</p> <p>However, Lenovo is a member of ITI and CEA, industry associations that recently made comments against stricter energy efficiency standards (a. the inclusion of computers and servers; b. comments against battery chargers systems regulation, respectively) in the scope of the California Appliance Efficiency Regulations. Lenovo needs to reiterate its support wherever possible for more stringent energy efficiency standards for all electronic products. It needs to distance itself from such regressive positions or risk incurring a penalty point in future editions of the Guide.</p>	<p>Lenovo introduced its first low halogen product, the ThinkVision L2440x Wide monitor, in October of 2008, and followed this product with the ThinkVision L2251x Wide monitor released in November 2009. Both of these products were available globally. In late 2010, Lenovo introduced the low halogen M90p desktop. In addition, all ThinkPad classic notebooks (the T420s, X1, T520, W520, T420, X220, and X220t) will be fully low halogen (with some exemptions such as power cables). Lenovo is also working on low halogen consumer products, including a low halogen notebook and desktop. Where full product systems are not yet available, products contain many low halogen components. For example, hard disk drives, optical disk drives, solid state drives, LCD screens, memory, CPUs, chipsets, and several communications cards meet the iNEMI definition of low halogen. In addition, all plastic enclosures and most components and connectors also met this definition of low halogen (with the exception of printed board laminates). In 2011, all ThinkPad notebooks will be released with low halogen PCBs. More information here and here. 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 shifted further in time to 2011; its latest goal was to phase out the use BFRs and PVC across all newly introduced products in 2011. While this goal has not been achieved for all new products in 2011, there are several new product systems on the market that are PVC/BFR free. Progress towards this goal is demonstrated by the number of halogen-free components incorporated in several product lines. Lenovo states that it "plans to continue to work with our suppliers towards the goal of phasing out of the use of BFRs and PVC, recognizing that many technical and supply related challenges still exist."</p> <p>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 which is 200 ppm, due to the requirements of European recyclers. More information.</p> <p>See p.19.</p>	<p>Lenovo reports its net Post-Consumer Content plastics (PCC) content in 2010 as 4.3% of the total plastics used. Many of Lenovo's products have some PCC, for example, in 2009, over 30% net of all plastic by weight used in Lenovo monitors consisted of low-halogen post-consumer recycled content. The L512 ThinkPad contains 18% net post-consumer plastics, making it the industry's highest amount of PCC plastics in a notebook. More information.</p> <p>Lenovo aims to grow the use of PCC plastics by 20% over the previous year.</p> <p>More information.</p>	<p>Lenovo does not provide a summary of the length of product warranties or availability of product replacement parts.</p> <p>Lenovo needs to publicly disclose the length of warranty and spare parts availability for its main product lines. For maximum points it also needs to show some innovative measures that increase lifespan and durability of whole product systems, rather than only individual parts.</p>

Sustainable Operations

Measure and reduce energy consumption in the supply chain	Chemicals Management and Advocacy	Policy and practice on sustainable sourcing of fibres for paper	Policy and practice on avoidance of conflict minerals	Provides effective voluntary take-back where no EPR laws
1/5	3/5	0/3	1/5	5/8
<p>Lenovo is working with the Electronics Industry Citizenship Coalition's Environmental Sustainability Working Group to develop and implement a carbon/water reporting tool, to gather primary data from key Tier 1 suppliers, based on percentage of production related and non-production related suppliers total spend. Lenovo plans to engage with its key suppliers on carbon emission reductions opportunities once internal evaluation of suppliers' aggregated data is completed. An evaluation of potential supplier climate change performance and strategy will become a differentiator in the procurement process. Points in the chain where significant risks are created due to high level of GHG emissions will be identified and specific mitigation plans implemented.</p> <p>Lenovo is engaged in the development of product carbon footprint (PCF) protocols and tools that will promote energy reduction actions and allow for product differentiation with external partners. The company participates as a member of the Stakeholder Advisory Group for the World Resources Institute (WRI) & World Business Council for Sustainable Development's (WBCSD) development of the Product Accounting & Reporting Standard.</p> <p>Lenovo's climate change targets include establishing the PCF for at least one product from each product family during the current fiscal year. This work will be used to drive identification & evaluation of opportunities to reduce the PCF of Lenovo's products.</p> <p>More information.</p> <p>Lenovo earns one point for collaborating to begin the process of addressing GHG emissions from its supply chain.</p>	<p>Lenovo states that its chemicals and substance management policy supports a precautionary approach that ensures that action is taken even if some cause and effect relationships are not scientifically established. Lenovo also supports the goal to phase out BFRs and PVC, however it does not mention of the need for RoHS 2.0 to adopt a ban on organo- chlorine and bromine compounds, as well as an end-of-life focused methodology for adding future substance restrictions. More information. See also 2010 Sustainability Report, p.44.</p> <p>Lenovo's Engineering Specification 41A7731 reflects its commitments on eliminating PVC, BFRs, beryllium, antimony and their compounds.</p> <p>RoHS/REACH Engineering Specification.</p> <p>Material Composition Declaration for suppliers specifies no intentional use for some substances.</p>	<p>Lenovo states that 'where recycled material is not available, Lenovo will continue to seek sustainable material solutions (recycled or bio-based) and minimize the use of packaging material consumption. Its goal is to drive to 100% environmentally sustainable materials, and expand use of 100% post-consumer packaging material globally". It also states that "all the packaging materials used by Lenovo are recyclable and since 2006, Lenovo implemented the use of 100% recycled content packaging materials in China. As a part of Lenovo's green packaging strategy, the 100% post-consumer content materials are chosen for packaging design as a first priority". It reports on the progress made towards these targets.</p> <p>More information here and here.</p> <p>Packaging Specification 41A0613 Recyclable Packaging Materials.</p> <p>However, although Lenovo specifies 'environmentally friendly packaging' it does not specifically exclude suppliers that are involved in deforestation and illegal logging. It also does not specify that its recycled fibres should be FSC certified. Lenovo needs to develop a paper procurement policy which excludes suppliers that are involved in deforestation and illegal logging and sets specific targets to reduce paper use and increase use of recycled and FSC fibres.</p>	<p>Lenovo only scores 1 point; it has joined the EICC but is not an active member of the Extractives Working Group and has not published or publicly mapped smelters or suppliers, as several companies have already done. It is active in the EICC smelter audit process but has no internal policy on conflict minerals.</p> <p>In addition, it has not signed up to the Public Private Alliance and has not made statements on the need for a multi-stakeholder certification process or publicly committed to implement the OECD due diligence guidelines.</p> <p>Lenovo did not issue a statement against the Chamber of Commerce lawsuit, join the multi-stakeholder submission to the SEC on conflict minerals or participate in the OECD due diligence drafting.</p> <p>In 2011, Lenovo will continue to support industry efforts in this area. More information here and here.</p>	<p>Take-back is offered in 51 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.</p> <p>Product take-back has been extended in India and in China.</p> <p>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.</p> <p>Information about Lenovo's free take-back programme in the US.</p> <p>During 2009 (calendar year) Lenovo financed or managed the processing of over 11.547 metric tonnes of products. This equates to 6.4% of the weight of products shipped in 2002. The overall quantity of waste products recycled in 2009 dropped from 17,919 in 2008, due to lower new product sales as a result of the economic downturn, which resulted in lower customer returns of replaced products. See p. 48 & 49, FY2010 Sustainability Report.</p>

Ranking Criteria Explained

Version 17, released in November 2011, of the Greenpeace Guide to Greener Electronics ranks companies in the electronics industry under three headings, Energy & Climate, Greener Products and Sustainable Operations.

The criteria used in version 17 of the Guide to evaluate the companies reflect Greenpeace's demands to electronics companies to:

- Reduce emissions of greenhouse gases (GHGs) with energy efficiency and renewable energy
- Clean up their products by eliminating hazardous substances;
- Take-back and recycle their products responsibly once they become obsolete,¹ and;
- Stop the use of unsustainable materials in their products and packaging

Previous versions of the Guide ranked companies on the following criteria: Chemicals, E-waste, and Energy. The ranking in version 17 sees a major change as it reorganizes the individual criteria under new headings (Energy & Climate, Greener Products and Sustainable Operations).

In areas where Greenpeace has seen some progress, multiple criteria have been folded together into one overall criterion, putting the focus on the implementation of previous commitments. In places where the industry needs to make further progress, such as energy policy and practice, we have re-written and strengthened the current criteria. Finally, new criteria on the sourcing of paper products and conflict minerals have been added under Sustainable Operations and on product life cycle under Greener Products.

In addition to these structural changes, the scoring system has also been changed. Depending on the complexity of the criteria the maximum points awarded per criteria will vary between 3, 5 and 8 points. There will no longer be double points for any criteria in the new scoring system. The maximum score is 69, which is converted into a score out of 10.

Given the urgency of tackling climate change, Greenpeace has re-focused and updated its energy criteria to encourage electronics companies to improve their corporate policies and practices with respect to Energy and Climate.

Criteria on Energy and Climate

The criteria that companies will be evaluated on are:

1. Disclosure of Greenhouse Gas (GHG) emissions
2. Commitment to reduce the company's own short term and long term GHG emissions
3. A Clean Energy Plan which includes increasing use of Renewable Energy (RE) and energy efficiency measures to implement cuts in GHGs
4. Advocacy for a Clean Energy Policy at national and sub-national level

Criteria on Greener Products

These criteria focus on the environmental performance of consumer electronics, across a number of different issues:

1. Energy efficiency of new models of specified products
2. Products on the market free from hazardous substances
3. Use of post-consumer recycled plastics in products
4. Product life cycle

Criteria on Sustainable Operations

These criteria examine how companies implement environmental considerations during manufacture in their supply chain through to the end-of-life phase of a product:

1. Reduction of supply chain GHG emissions by major suppliers
2. Policy, practice and advocacy on chemicals management
3. Policy and practice on sustainable sourcing of fibres for paper
4. Policy and practice on avoidance of conflict minerals
5. Producer responsibility for voluntary take-back of e-waste

Company scores

Companies have the opportunity to improve their score, as the Guide will be periodically updated. 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 e-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 electronic 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 criteria was made more challenging.

The 17th edition has been re-organised, to reflect campaign priorities and to provide a more comprehensive assessment of the areas where electronics companies impact the environment, under the three headings Energy & Climate, Greener Products and Sustainable Operations. Many elements of the previous criteria remain but they have been re-arranged and updated, with a greater focus on implementation rather than commitment.

It now ranks 15 top manufacturers of personal computers, TVs and mobile phones; Fujitsu, games console producers Nintendo and Microsoft are no longer included and the mobile phone manufacturer Motorola has been replaced with RIM.

For the latest version, see www.greenpeace.org/rankingguide

Sony is issued with a penalty point on its total score as it has made comments in opposition to energy efficiency standards in California, (specifically on the CA Title20 Battery chargers systems and the SB 454: Enforcement of energy efficiency appliance standards).

Sony and LGE are listed as clients of Asia Pulp and Paper (APP), which is responsible for illegal logging and deforestation in Indonesia. Sony and LGE should immediately and publicly commit to stop sourcing any paper or packaging needs from APP or risk being penalised in future versions of the Guide.

Companies that are members of the trade associations ITI and CEA are warned that they risk incurring a penalty point in future editions of the Guide; this affects all companies apart from Sony Ericsson, LGE and Acer. These industry associations have recently made comments against stricter energy efficiency standards in the scope of the California Appliance Efficiency Regulations (a. the inclusion of computers and servers; b. comments against battery chargers systems regulation, respectively). Companies need to distance themselves from such regressive positions and reiterate their support wherever possible for more stringent energy efficiency standards for all electronic products.

Penalty points previously imposed on Toshiba, Samsung, LGE, Dell and Lenovo for backtracking on their commitments to phase out vinyl plastic (PVC) and brominated flame retardants (BFRs) have been lifted as a result of progress made in bringing PVC/BFR-free products onto the market.

¹. The two issues are connected: the use of harmful chemicals in electronic products prevents their safe recycling once the products are discarded.