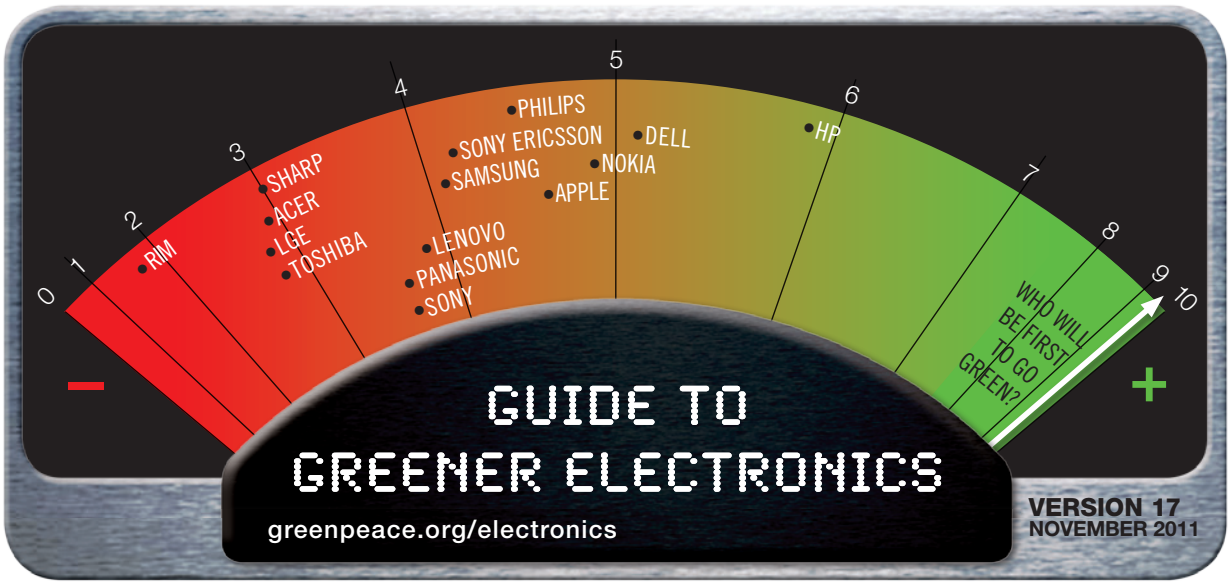

HP, 1st position, 5.9/10

HP takes the lead in the re-launched Guide with 5.9 points. It scores most of its points and is the leader on the new Sustainable **Operations** criteria, which includes the management of its supply chain. It has the best programme for measuring and reducing emissions of greenhouse gases (GHGs) from its suppliers, disclosing emissions from its manufacturing at 3,500,000 tonnes CO_2-e, with 91 percent of first-tier suppliers reporting estimated emissions in 2009. It also scores maximum points for its thorough paper procurement policy; HP and Dell are the only companies in the Guide that effectively exclude the sourcing of paper from suppliers linked to illegal logging or deforestation. Together with Apple, HP is also a top scorer for its policies and practices on the sourcing of conflict minerals, for publishing its suppliers and engaging effectively in the Electronics Industry Citizenship Coalition's conflict-free smelter program. The only operations criteria where it scores relatively poorly is e-waste, where it needs to expand its take-back programme for consumers in countries without legislation and improve on its reporting of data.

HP is also a relatively high scorer on the **Energy** criteria, and does especially well for its disclosure of externally verified GHG emissions from its own operations and for setting targets for their reduction, with reductions of 9 percent from 2009, although it needs to address increasing emissions from business travel and to set more ambitious targets to reduce its own GHG emissions by at least 30 percent by 2015 for its operations and to use 100 percent renewable electricity by 2020. It's score for its clean energy plan is average and although its use of renewable energy is increasing it needs to increase this further. HP is also rewarded for its relatively strong advocacy position in opposition to California's proposition 23 in Nov 2010, which it believes would "impair California's leadership in reducing greenhouse gases".

It scores the least points in the **Products** category; although it scores comparatively well for its progress on phasing out the use of polyvinyl chloride (PVC) plastic and brominated flame retardants (BFRs) from its product range and is on track to achieve 90 percent of its new goal to phase out BFR and PVC in newly introduced personal computing products in 2011. HP needs to report on the amount of post-consumer plastics it uses as a percentage of all plastics and publicly disclose the length of warranty and spare parts availability for its main product lines, as well as show more innovations to extend product life. HP does not provide a summary of the energy efficiency of its products by giving a percentage of its products that meet the latest Energy Star standards (or other relevant international standard for external power systems); this should be published on its website, for each product range. However, HP risks a **penalty point** in future Guide editions as it is a member of trade associations that have commented against stringent energy efficiency standards; it needs to distance itself from such regressive positions with a strong statement.

HP 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				

HP Detailed Scoring

Energy

Disclose own operational GHG emissions	GHG emissions reductions and targets	Clean Electricity Plan (CEP)	Clean Energy Policy Advocacy
3/3	**5/8**	**4/8**	**3/8**
In 2010, GHG emissions from HP operations equaled 1.87 million tonnes of carbon dioxide equivalent (CO_2e), over 9% less than 2009. HP provides background information and analysis on the source of its GHG emissions. **More information.** GHG emissions from employee business travel were 463,000 tonnes of CO_2e. **More information.** HP calculates its GHG emissions according to the GHG Protocol; scope 1, 2, and 3 GHG emissions are reported. **More information.** **External verification.** HP provides background information and analysis on the source of its GHG emissions.	HP's goal is to reduce absolute GHG emissions from HP-owned and HP-leased facilities by 20% below 2005 levels by 2013. Emissions have been reduced by 9% from 2009. HP adjusts its baseline to account for acquisitions and divestitures. **More information here** and **here.** Emissions from business travel increased by 49% compared with 2009, returning to the levels generated in 2008. To reduce emissions, HP is working to eliminate high fuel consumption vehicles from its fleet. **More information.** Between 2005 and 2008, HP reduced the energy used in its operations by over 9% towards the previous goal of 16% by 2010. (previous version of HP webpage) **More information.** HP needs to set ambitious targets and aim to reduce its own GHG emissions by at least 30% by 2015 for its operations and use 100% renewable electricity by 2020.	HP states that it "is committed to making its global operations more energy efficient, seeking low-carbon energy sources where possible, and reducing employees' business travel." **More information.** HP considers that energy efficiency is central to reducing costs and greenhouse gas (GHG) emissions, as the business—and particularly its focus on data center services—grows. Energy efficiency projects are projected to reduce annual energy use by approximately 70 million kWh, and save $5.7 million USD annually. HP also gives details of how it is making data centres more energy efficient. **More information.** HP purchased approximately 311 million kWh of renewable energy worldwide in 2010— equivalent to over 8% of electricity use in facilities and twice the amount in 2009. This is made up of energy generated on-site and renewable energy credits (RECs) in the US, and does not include renewable energy available by default in the power grid. HP provides a **list of renewable energy initiatives** underway in 2010. HP has already met its goal to double voluntary purchases of renewable energy to 8% of electricity use by 2012. **See Operations Goals.**	HP gives details of its work with governments, NGOs and other technology companies to advocate action on energy and climate policies to improve energy efficiency and reduce greenhouse gas (GHG) emissions throughout the global economy. **More information.** **See also public policy.** **See also HP's statement** in opposition to California's Proposition 23.

Greener Products

Product Energy Efficiency	Avoidance of Hazardous Substances in Products	Use of Recycled Plastic in Products	Product Life-Cycle
3/5	**3/5**	**1/3**	**1/3**
100% of HP EPSs are Level V of the International Efficiency Marking Protocol for External Power Supplies, as specified in the **HP General Specification for the Environment** (Product section "7.1.1 Mandatory (Legal) specifications for Single Voltage External ac-dc and ac-ac Power Supplies", p.81). HP informs Greenpeace that 75% of its current PC and display product family portfolio have ENERGY STAR® qualified configurations. 75% of HP's Display product portfolio exceeds the ENERGY STAR 1W sleep mode threshold limit by more than 50%. 90% of HP's Display product portfolio exceeds the ENERGY STAR 1W off mode threshold limit by more than 50%. However, this information is not provided on HP's website. **More information here** and **here.** Information on Energy Star qualified products and tools for energy management – see for example HP Power Assistant for notebooks and desktops, is provided. **More information.** HP also provides a **carbon footprint calculator.** HP needs to provide information on the percentage of its products that are ES qualified in a more transparent and accessible way. However, HP 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. HP 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.	At the end of 2010, 100% of all new HP notebook products are BFR- and PVC-free. -The HP All-in-One200 PC, the first HP consumer desktop to contain some BFR- and PVC-free components -HP EliteBook and ProBook notebooks and the HP Compaq 6005 Pro Ultra-slim Desktop (USDT) PC -The HP EliteBook 8440p and the HP 2310e LED consumer display, which also include mercury-free LED backlights Mercury was also removed from all notebooks by the end of 2010. Introduced in 2010, the HP ENVY100 e-All-in-One is the first PVC-free printer. Palm products, such as Pre and Pixi and the new Palm Pre 2, are also PVC-free. **More information.** **Product Eco Declarations.** HP is on track to achieve 90% of its new goal to phase out BFR and PVC in newly introduced personal computing products in 2011. Its target to phase out the phthalates DEHP, DBP and BBP in newly introduced personal computing products has been revised to the end of 2012. However, there is no goal to phase out all phthalates, although HP says it 'may require additional future restrictions'. **Sustainable Design – Goals - Materials.** Beryllium and its compounds must not be used in parts, components, materials, or products in concentrations greater than 0.1% (1000 ppm) by weight (with exemptions). When "BFR/PVC-free" is specified in HP product and component specifications, antimony in the form of antimony trioxide must not be present. However, there is no limit or objective for other forms of antimony. See p. 10, 12, **General Specification for the Environment.**	HP has used more than 20,000 tonnes of recycled plastic resin in 760 million ink print cartridges between 2005 & 2009. Its goal is to use a cumulative total of 100 million pounds (45,000 tonnes) of recycled plastic in printing products, including ink cartridges, between 2007 and 2011. **More information.** HP gives two examples of products that use recycled plastics: the EliteBook 2540p, its first notebook computer with more than 10% recycled plastic, was launched in 2010 and the HP Deskjet 3050 printer, which has the highest ever recycled content of any of its printers, with 35% recycled plastic. **More information.**	HP informs Greenpeace that all consumer PC and display warranties have a standard 1 year warranty, while select consumer PC products have a 2 year standard warranty. All business PCs have a 1 year standard warranty, while many business PC products have a 3 year standard warranty. All business displays have a 3 year standard warranty. The standard warranty periods for HP home and office printers are 1 year with the exception of low end inkjet products that are priced less than $60, which have a 90 day parts and labor warranty in the US and Canada. All HP notebook and desk-based computers are designed to be customer-upgradeable and are supported by an **extensive portfolio** of upgrade modules and accessories. Over half (58%) of all HP EPEAT registered products meet all the relevant product longevity/life cycle extension criteria (availability of 3 year product warranty, upgradeable with common tools, modular design, and 5 year replacement parts after end of production) as declared on the **EPEAT registry.** HP business Notebook innovations offer long life battery technology, LED backlighting and HP Power Assistant to save energy and extend battery life. **More information.** HP offers trade-in and buy-back programs in select countries, where previously owned HP products are made available for purchase and extend product lifecycles. **More information.** HP needs to publicly disclose the length of warranty and spare parts availability for its main product lines for more points. 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.

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
4/5	**4/5**	**3/3**	**4/5**	**3/8**
HP reports emissions from its manufacturing at 3,500,000 tonnes CO_2-e. 91% of first-tier suppliers reported estimated emissions (in 2009, the most recent year data is available). HP reports that "aggregate estimated emissions in 2009 were roughly the same as 2007 despite being attributable to a higher proportion of and a 4% increase in absolute dollar spend". **More information.** HP has been working with BSR in China to help suppliers reduce energy use, GHG emissions and costs. HP is working with the Electronic Industry Citizenship Coalition (EICC) which has developed a tool for suppliers to report GHG emissions which helped to significantly increase participation; in 2010, 251 suppliers responded to the EICC request for information—more than three times the number in 2009. Typical targets set by suppliers equate to a 2–3% reduction per year in absolute emissions and more first-tier suppliers are estimating their suppliers' emissions. **More information.**	HP's definition of the Precautionary Principle reflects the the need to eliminate potentially harmful chemicals even without full scientific certainty of harm. **More information.** HP supports the need for RoHS 2.0 to adopt restrictions on PVC and BFRs as a focus for the restriction of chlorine and bromine from electrical and electronic products, and believes restrictions of PVC and BFRs in RoHS may be possible in 2015 as long as specific issues and exemptions are addressed. **More information.** To score full points HP needs to demonstrate proactive advocacy. HP scores well for its chemicals management, which also specifies certain substances should not be used in processes. **General Specification for the Environment.** HP also published information on its reporting under the US Toxics Release Inventory for manufacturing worldwide. **More information.**	HP released the HP Environmentally Preferable Paper Policy in 2008, which details principles for buying, selling or using paper and paper-based product packaging. The policy outlines its aims to increasingly source paper and packaging from suppliers that demonstrate sustainable forestry practices, recycle paper when possible and reduce the tonnage of paper HP uses in its operations. HP sets goals to drive implementation of the paper policy that include reducing paper use in its operations and increasing recycled and Forest Stewardship Council (FSC) fibre in its products. Progress is reported annually in HP's Global Citizenship Report: **Paper.** **Packaging.** **Goals.** HP has been working to increase the amount of forest certified paper products across its portfolio. **HP's FSC and PEFC certified products.** Its **FSC certified paper products brochure.** The **PEFC certified paper products brochure.** HP's General Specification for the Environment prohibits the use of illegally sourced plant based products. **GSE pp. 17 & 18.**	HP has undertaken a multi-year tracing effort with its suppliers and has published its suppliers online. **More information here** and **here.** It is one of the leaders in the EICC conflict-free smelter program; it is very active in the EICC smelter audit process, it helped get independent experts on the EICC audit review committee and has an extensive new internal audit policy for suppliers on conflict minerals, including a requirement to source only from smelters that have passed the conflict-free audits. HP has also updated its General Specification for the Environment to include obligations for all contracted suppliers. **More information.** HP signed up to the Public Private Alliance and has statements on the need for a multi-stakeholder certification process; it has publicly committed to implement the OECD due diligence guidelines. HP also joined Motorola's "Solutions for Hope" project to source Congolese conflict-free tantalum in 2011. HP did not issue a statement against the Chamber of Commerce lawsuit but it did join the multi-stakeholder submission to the SEC on conflict minerals. HP participated in the OECD due diligence drafting and has actively reached out to NGOs on conflict minerals.	HP offers hardware recycling services in 46 countries or territories worldwide. Consumer take-back programmes include Australia, Brazil, China, India, Hong Kong, Canada, New Zealand and South Africa, although there are major gaps in Africa and South America. **More information here** and **here.** HP has also been involved in projects in Nigeria and Kenya to reduce environmental and human health impacts from e-waste recycling. **More information.** HP's consumer take-back programme in India has 15 collection points in 9 cities. **More information.** HP has a free 'Consumer Buyback' recycling programme in the US for HP and Compaq-branded product waste. **More information.** Otherwise, HP's voluntary take-back programme is mainly for business customers. HP's reuse and recycling rate in 2010 was 16%, at the same level as 2009. More information is also needed on how the 16% is calculated. HP recycled approximately 121,000 tonnes of e-waste in 2010; more than 50% of this was returned by consumers. **More information.** To score more points, HP needs to prove energy recovery (aka incineration) is not part of the 16% recycling performance figure and if so, exclude it from future calculations. **More information.**

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.