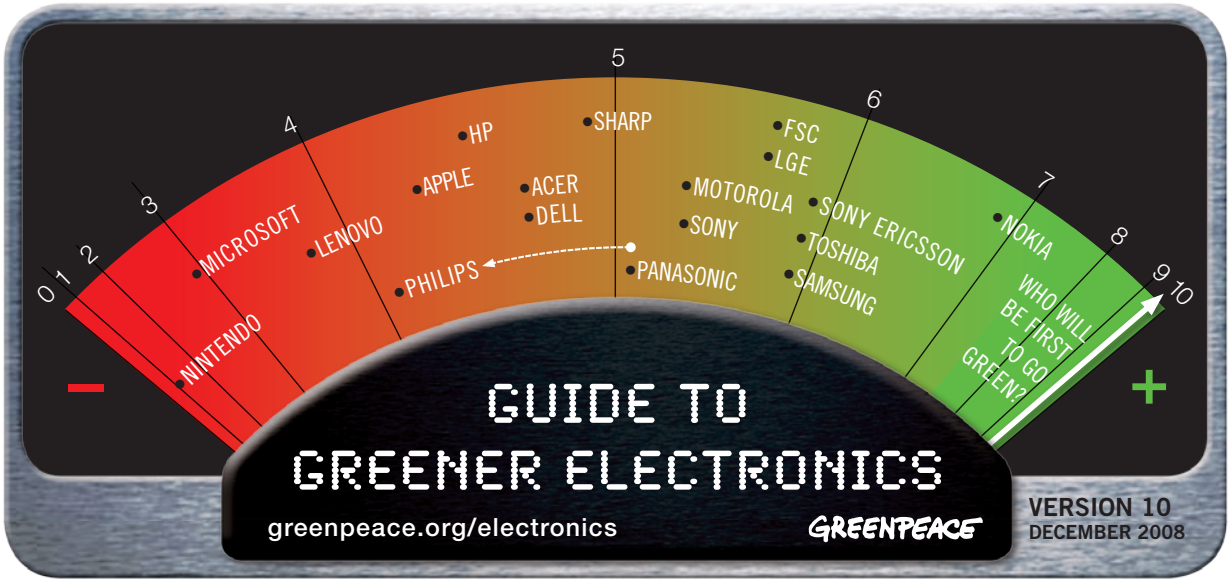

Criteria on Toxic Chemicals

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 criteria on Precautionary Principle and Chemicals Management remain 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.

For the latest version **greenpeace.org/greenerelectronics**

Philips continues to get a penalty point; however, this is no longer for double standards (as the Electronic Manufacturers' Coalition for Responsible Recycling has been dissolved), but for bad lobby in the EU on Revision of WEEE Directive.

FUJITSU-SIEMENS Ranking = 5.7/10

Fujitsu Siemens Computers increases its score to 5.7 points but drops to 5th place, just behind Toshiba and Samsung. FSC gains extra points for its use of renewable energy and commitment to increase this by 2020. On the other energy criteria, FSC gets top marks for its political support for global cuts of greenhouse gas emissions. It also scores points for reporting that 27% of consumer PCs meet the Energy Star 4 standard, 75% of Business Line professional notebooks and 58% of PCs meet ES4. Of these models, 100% exceed the Energy Star requirements by 26 – 57%.

FSC sells a range of green-certified products, which use halogen-free flame retarded plastics and halogen-free circuit boards for mainboard and power supply. FSC has finally put a timeline of end of 2010 for the complete elimination of PVC and BFRs in all its products.

FSC scores relatively poorly on the e-waste criteria. The only voluntary take-back service offered by FSC is in South Africa. The company reports a recycling rate of 22.5% for Germany based on past sales, using a 7-year average lifespan of a computer, and over 30% in 13 other countries where its products are sold

FUJITSU-SIEMENS Overall Score

	BAD (0)	PARTIALLY BAD (1+)	PARTIALLY GOOD (2+)	GOOD (3+)
Precautionary Principle				
Chemicals Management				
Timeline for PVC & BFR phaseout				
Timeline for additional substances phaseout				
PVC-free and/or BFR-free models (companies score double on this criterion)				
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				

FUJITSU-SIEMENS Detailed Scoring

Chemicals

Precautionary Principle	Chemicals Management	Timeline for PVC & BFR phaseout	Timeline for additional substances phaseout	PVC-free and/or BFR-free models (double points)
GOOD (3+)	**GOOD (3+)**	**GOOD (3+)**	**PARTIALLY GOOD (2+)**	**PARTIALLY BAD (1+)**
FSC's definition of the precautionary principle recognises the need to eliminate potentially harmful substances "even if the full extent of harm has not been definitively established". **More information.**	Fujitsu Siemens provides comprehensive lists of banned and restricted substances, materials specifications and associated documents and gets top marks. **More information. Environmental Guildeline FSC03230. List of prohibited substances.**	FSC gives a timeline of the end of 2010 for complete elimination of PVC and all BFRs, provided technically feasible alternatives are available. **More information.**	FSC does not use beryllium. Antimony will be phased out when BFRs are eliminated as its use is linked to BFRs; phthalates will be eliminated with the phase out of PVC, both to be phased out by the end of 2010. FSC loses a point as it also needs to ban the use of phthalates in applications other than PVC, such as adhesives and coatings. **More information.**	Fujitsu Siemens Computers sells a range of green-certified products such as its FUTRO thin clients, ESPRIMO professional PCs and CELSIUS workstations. 'Green Products' use halogen-free flame retarded plastics and halogen-free circuit boards for mainboard and power supply. PVC is not used in the housing or mechanical parts. **More information. Green models. History of green products.**

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
PARTIALLY GOOD (2+)	**PARTIALLY BAD (1+)**	**PARTIALLY GOOD (2+)**	**PARTIALLY GOOD (2+)**	**BAD (0)**
FSC makes a **clear statement** in support of Individual Producer Responsibility, but fails to explore options for operationalisation of this principle and to actively lobby for it.	FSC has started a take-back programme in South Africa and plans to extend its voluntary take-back service to the whole EMEA region (Europe, Middle East and Africa). NOTE, the FSC brand is only marketed in EMEA. **More information here** and **here.**	FSC now provides a list of recycling schemes in 32 countries, mostly in Europe, but also South Africa, Taiwan and USA (for its business customers there). **More information.** It also provides an e-mail address for countries outside EU. **More information here** and **here. Information about its 'recycling hub' in South Africa.**	FSC is now reporting a recycling rate of 22.5% in Germany and over 30% in 13 other EMEA countries, based on past sales, using a 7-year PC lifespan. Additional figures from the other EMEA countries will be available in 2009. FSC should provide more information on how the calculations are made, given that in EU, recycling of e-waste is financed collectively by current market share, and may not represent what actually comes back into the collective recycling systems. **More information. 2007-2008 Environmental Report** (p.14-16).	FSC states that it does not use recycled plastic in its products, although it uses recycled plastics for corporate gifts. **More information.** However, FSC's 03230 Guideline (Section 3.2.2 Material Requirements for Plastic Products, p.6) states: "….the plastic products utilised should consist of at least 5 % by weight of recycled plastics." **More information.**

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)
GOOD (3+)	**BAD (0)**	**BAD (0)**	**PARTIALLY GOOD (2+)**	**PARTIALLY GOOD (2+)**
FSC states that it "clearly supports global mandatory cuts of Greenhouse Gas emissions of at least 50% by 2050 (from 1990 levels) and cuts by industrialized countries of at least 30% as a group by 2020." **More information.**	FSC reports on energy consumption at its Augsburg manufacturing site in Germany only. There is no information on emissions from 2 stages of product supply chain. **More information.**	FSC has documented significant relative reductions in emissions of CO_2 since 2001, but makes no concrete commitment to further cuts of absolute emissions. **More information.**	At least 15 % of FSC's purchased electricity in 2007 was generated by renewable energy sources and it has a target to increase its use of RE to 20% by 2020. **More information.**	FSC reports that 27% of consumer PCs meet Energy Star 4, 75% of Business Line professional notebooks and 58% of PCs meet ES4. Of these models, 100% exceed the Energy Star requirements by 26 – 57%. **More information.**