



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.

From this version of the Guide, Fujitsu Siemens Computers will no longer be scored. Fujitsu will acquire the Siemens share in Fujitsu Siemens Computers (FSC). The new company will operate under the brand Fujitsu from April 1, 2009. Fujitsu will be evaluated in the next Guide due in June 2009.

For the latest version greenpeace.org/greenelectronics

In this version of the Guide, PC manufacturers HP, Lenovo and Dell have been served a penalty point for backtracking on their commitment to eliminate vinyl plastic (PVC) and brominated flame retardants (BFRs) from their products by the end of 2009.

SHARP Ranking = 4.9/10

Sharp moves up the ranking from 10th place to 9th with an unchanged overall score of 4.9 points.

Sharp scores well for its policy and practice on toxic chemical issues although it loses points for its incomplete definition of the precautionary principle and for specifying the end of fiscal 2010, rather than calendar year 2010, for its phase out of PVC and BFRs. It gains points for improved chemicals management and it also provides a timeline of fiscal 2010 for eliminating phthalates and antimony. It has launched many models of LCD TVs and solar modules that are free of PVC (except accessories).

On e-waste criteria, Sharp now scores a point for its new voluntary take-back programme for TVs and consumer electronics in the US, which is nationwide. Sharp provides information to consumers in a few countries on what to do with their discarded Sharp branded products and reports on the use of small amounts of recycled plastic. Sharp supports Extended Producer Responsibility – though not Individual Producer Responsibility and needs to improve its definition to keep its point.

On energy, Sharp loses a point as it only 'contributes' to rather than explicitly 'supports' global cuts in greenhouse gas (GHG) emissions of 50% by 2050 and at least 30% in industrialised countries by 2020. Sharp discloses third party verified GHG emissions from its own operations and reports that 0.2% of the electricity generated at its Japanese production sites in 2007 and 85% of electricity used at its US sites came from renewable energy sources. It gains a point for reporting that 100% of Sharp TVs meet the latest ES requirements with 64% at least 30% more efficient in standby mode. In addition, 100% of MFPs qualify under ES1.1, with nearly 70% at least 30% more energy efficient than the baseline.

SHARP 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 <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				

SHARP 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)
PARTIALLY GOOD (2+)	GOOD (3+)	PARTIALLY GOOD (2+)	GOOD (3+)	PARTIALLY BAD (1+)
For full marks, Sharp needs to better define its understanding of the precautionary principle as it relates to Sharp's chemical policy. There is no reference to scientific uncertainty, which cannot be used as an excuse for lack of action on chemical substitution. More information. Basic Environmental Philosophy (point 2.2).	Sharp scores top marks for its Manual for Survey of Chemical Substances and Green Procurement Guidelines . Sharp has identified a list of substances for future restriction or elimination and criteria for their consideration. Manual for Survey of Chemical Substances Contained in Parts and Materials. Green Procurement Guidelines.	Sharp commits to eliminate PVC and BFRs from all products by the end of fiscal 2010 i.e. end of March 2011, provided it can find suitable alternatives. To regain top marks, the phase-out date needs to be moved forward by one quarter to the end of calendar year 2010. More information.	Sharp commits to eliminate phthalates and antimony from all products by the end of fiscal 2010, provided it can find suitable alternatives. The company has already banned beryllium, but there are many exemptions for which Sharp needs to find substitutes. More information.	Sharp provides a list of many models of LCD TVs, solar modules and mobile phones that are free of PVC, except accessories. Sharp has no products free of BFRs. Many models of LCD TVs, DVD projectors, audio and video products and mobile phones have casings free of BFRs. More information.

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 BAD (1+)	PARTIALLY BAD (1+)	PARTIALLY BAD (1+)	PARTIALLY BAD (1+)	PARTIALLY BAD (1+)
Sharp supports Extended Producer Responsibility, but not necessarily Individual Producer responsibility. It is taking a lead in recycling e-waste and designing more recyclable products. It is actively participating in the design of recycling systems now being considered in China and other parts of Asia. Sharp's confused support for IPR could be understood only as support for Collective Producer Responsibility, or just EPR, and therefore Sharp's score risks dropping to zero. More information.	Sharp now offers nationwide recycling in the US, including TVs and Consumer Electronics, which covers all US States. More information here and here. In the US, Sharp is part of US EPA's Plug-In To eCycling. Offers voluntary take-back of toner cartridges in Canada, France and Japan, and mobiles (Mobile Muster) in Australia: In Canada, Sharp also recycles old electronic equipment for a small fee, through a recycling partner, Accu-Shred. More information.	Links to local Sharp contacts for customers in EU, US, Canada, Japan and Australia have improved with addition of phone numbers, but Sharp needs to expand take-back services so that it can serve more of its customers. More information. US MRM recycling network.	Although Sharp provides figures for recycling of TVs, copiers, PCs & washing machines (in units and wt) as well as weight of batteries collected in Japan for 2007, it does not report this as a percentage of past (or even current) sales. More information here and here. For Japan, Sharp reports the annual amount collected and the recycling ratio, for home appliances (including TVs) however, a separate figure for the amount of TVs recycled isn't given. The amounts of used electrical products collected in Maine, Minnesota are also provided. The amounts collected in Germany, UK and Czech Republic are given as a percentage of current sales, but the way it calculates its return share in the EU's collective systems is not clear. More information.	In 2007 Sharp recycled 850 tons of post-consumer plastics and has a target to increase this to 1000 tons in 2008. The data is not presented as a percentage of all plastic sourced. More information here and here.

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)
PARTIALLY GOOD (2+)	PARTIALLY GOOD (2+)	BAD (0)	BAD (0)	PARTIALLY GOOD (2+)
Sharp contributes to a mandatory global initiative that requires industrialised countries to cut their greenhouse gas emissions at least 30% by 2020 and calls for worldwide emissions to be reduced at least 50% from 1990 levels by 2050. Sharp loses a point as it needs to make its support for cuts of at least 30% in industrialised countries by 2020 more explicit. More information.	Sharp reports on GHG emissions from its own operations in absolute terms and per production unit. More information. Verification details. Calculation standards for Envi Performance Indices. Sharp provides data giving a breakdown of CO ₂ emissions for products during their life cycle. More information.	Sharp has a target to reduce relative CO ₂ emissions (per adjusted production unit) by 28% compared to fiscal 1990 by 2010, but for domestic production sites only. There is no target for an absolute reduction of emissions of all GHGs. See CSR report 2008 (p.24 - 25, p.35) As a result of various measures taken by Sharp, CO ₂ emissions from its existing factories will peak by the end of fiscal 2008. More information.	Sharp estimates that 0.2% of the electricity generated at its domestic production sites in 2007 came from renewable energy sources. More information. In Europe some of its companies are operating on 100% renewable sources of energy and 85% of electricity used at its US sites is renewable. However, no global percentage of renewable energy use is given and there is no commitment or timeline to increase its use. More information.	100% of Sharp TVs meet the latest ES requirements with 64% at least 30% more efficient in standby mode. In addition, 100% of MFPs qualify under ES1.1, with nearly 70% at least 30% more energy efficient than the baseline. A wide range of other Sharp products are also ES qualified. More information here and here.