



### 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](http://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.

## SONY Ranking = 5.5/10

Sony moves up two places to 5th, and increases its score to 5.5. It gains points on the energy efficiency of its products by reporting that all new models of TVs released in 2008 meet the latest ES requirements, and 45% of new models of "VAIO" PCs launched July 2007 to November 2008 meet the ES requirements for PCs. Sony still has room for improvement on the other energy criteria; it scores points for disclosing externally-verified greenhouse gas emissions for over 200 sites and committing to absolute cuts in GHG emissions; it needs to set a target and timeline for increasing its use of renewable energy globally.

Sony does relatively well on chemicals, its score boosted by having models on the market that are partially free of PVC and BFRs, including three models of video recorders and many models of the VAIO PC, "WALKMAN", camcorder and digital camera. It still needs to set a timeline for eliminating all phthalates, beryllium copper and antimony and its compounds.

On waste issues, Sony scores relatively well for its voluntary take-back and recycling of the e-waste generated by its branded products, although not much in non-OECD countries. It reports a recycling rate of 54% based on past sales of TVs and PCs, but this information is only for Japan and separate data need to be reported for TVs and PCs.

## SONY 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				

# SONY 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)
<b>PARTIALLY GOOD (2+)</b>	<b>GOOD (3+)</b>	<b>PARTIALLY GOOD (2+)</b>	<b>BAD (0)</b>	<b>PARTIALLY GOOD (2+)</b>
Sony makes no reference to the precautionary principle even though its progress in eliminating hazardous substances seems to be guided by three important elements of this principle: preventive action, voluntary elimination and active search for safer substitutes. To keep the 2 points, Sony needs to use the term Precautionary Principle and state that it will take action on eliminating potentially hazardous substances even if the scientific jury is still out as to their degree of harm. <b>More information.</b>	Sony provides information in SS-00259 (8th edition, March 2009) Management Regulations and Green Partner programme to ensure implementation of the Regulations. <b>More information here and here.</b>	Sony provides a timeline of end of Fiscal Year 2010 which means April 2011 to substitute PVC in all new models of mobile products (excluding accessories), and BFRs in the casing and main PWBs of all new models of mobile products. To stay on 2 points, Sony needs to bring forward its timeline by one quarter to end of CY 2010. <b>More information.</b>	Sony is working to eliminate specific phthalates used as a plasticiser in PVC, although a timeline for all products isn't specified. <b>More information.</b> Sony has banned beryllium oxide from April 2008 with exemptions, although beryllium copper is listed as a controlled substance with no timeline for elimination. Antimony is not listed. <b>More information.</b>	Sony has examples of products that are partially free of PVC and BFRs, including three models of video recorders, many models of the Personal Computer VAIO, "WALKMAN", Camcorder, Digital Camera and Digital Photo Frames. These models are free of PVC in the casings and internal wiring but PVC is still used in external cabling. They are free of BFRs in casings and main printed wiring boards, but not all wiring boards. <b>More information.</b>

## 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 GOOD (2+)</b>	<b>PARTIALLY GOOD (2+)</b>	<b>PARTIALLY GOOD (2+)</b>	<b>PARTIALLY BAD (1+)</b>	<b>PARTIALLY BAD (1+)</b>
Sony scores 2 points on this criterion because it 'respects' rather than supports the principle of Extended Producer Responsibility - rather than Individual Producer Responsibility (IPR). To gain top marks, SONY will need to explore options for operationalising IPR and continue to lobby for IPR, inter alia to ensure the revised WEEE legislation sets clearer requirements (enforcement criteria) for the implementation of IPR and prevents the indefinite use of the Visible Fee. <b>More information.</b> Sony is a member of the European Recycling Platform established to implement IPR. <b>More information.</b>	Sony has now established a nationwide recycling program in the US, together with WM Recycle America. For more points, Sony needs to expand its take-back programme in non-OECD countries. <b>More information.</b> All Sony handheld products are accepted for recycling, and notebook PCs can be traded in, at its Sony Style stores across Canada. 25 non-retail locations accept all Sony products for recycling at no charge. <b>More information.</b> <b>Sony offers battery take-back and recycling in Brazil, Australia and New Zealand.</b>	Sony provides information to individual customers in the EU, US (including on batteries) and Japan, but not in Canada. <b>More information.</b> <b>Also see Sony Take Back Recycling Program website for the US.</b>	In fiscal 2007, Sony recovered 68,133 tons of resources from e-waste from Japanese consumers, which included end-of-life TVs and PCs, equating to a "resource reuse/recycling ratio of around 54% based on average lifespan of TVs and PCs. But this figure is only for Japan and there is no differentiation for TVs and PCs. <b>More information.</b> Sony reports on the amounts of WEEE and batteries collected in N. America, recycling rates for TVs and PCs in Japan and recycling volumes for batteries in Asia & Australia. <b>More information here and here.</b> <b>Recycling in Europe and ERP</b>	Sony currently uses approximately 2,000 tons recycled plastics annually in various products. Approximately 82% of this is post consumer plastic, with 18% post industrial plastic. Sony has set its reused/recycled materials ratio targets at 12% or higher. Although Sony commits to increasing its use of recycled plastic, it has yet to provide a timeline for increasing recycled content to 12%. <b>More information.</b> <b>Sony describes the development of its resource conservation system.</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 BAD (1+)</b>	<b>PARTIALLY GOOD (2+)</b>	<b>PARTIALLY BAD (1+)</b>	<b>PARTIALLY BAD (1+)</b>	<b>PARTIALLY GOOD (2+)</b>
Sony fails to score more points because the Tokyo Declaration it co-signed uses a baseline year of 2000 (not 1990) and fails to differentiate between the higher cuts in GHG emissions required by industrialised countries. <b>More information.</b>	Sony discloses third party verified GHG emissions totalling approximately 22.52 million tons in fiscal 2007, of which 3.32 million tons are Sony's own emissions. The increase of some 7% in GHG emissions from 2006 was due primarily to an increase of approximately 8% in CO <sub>2</sub> generated during product use. <b>More information here and here.</b> <b>Methods and approach. Verification is detailed.</b>	Sony is committed to reducing emissions from business sites by 7% or more by 2010, but uses emission data from 2000 as baseline – not 2006-2008 baselines specified by Greenpeace. Data and targets could be presented more clearly. <b>More information here and here.</b> A reduction of 6.6% in GHGs was achieved by FY 2007 (baseline 2000). <b>More information.</b>	In Japan the Sony Group has finalised a contract for 55.45 million kWh annually using the Green Power Certification System, equivalent to around 2.5% of the Group's total power use. In Europe, 9 Sony sites are fully powered by renewable energy, representing 43% of Sony's total energy consumption in Europe. Since April 2008, four of Sony's US sites are buying renewable energy (approx 50 million kWh in 2008). <b>More information.</b> The total percentage of RE used and a commitment and timeline to increase its use globally is needed.	All new models of TVs released in 2008 meet the latest ES requirements, and 45% of new models of "VAIO" PCs launched during July 20th 2007 to November 2008 meet the ES requirements for PCs. Ten out of eleven BRAVIA TVs released in Japan earn a 5 star energy rating under Japanese standards. <b>More information.</b>