



### 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.

## PANASONIC Ranking = 4.31/10

Panasonic falls from 9th to 12th place and its score drops to 4.3 points, as a result of losing points for its confusing definition of the Precautionary Principle which it needs to define further. It also loses points for not reporting to the latest Energy Star TV standard v.3.0 or to the latest ES External Power Supplies standard v.2.0. It reports that 100% of PCs launched since 2007 meet the latest Energy Star standard and 30% exceed. Panasonic earns an additional point on the energy criteria for supporting cuts of greenhouse gases of up to 30% by 2020; it also discloses externally-verified greenhouse gas emissions from its own operations and commits to absolute reduction in emissions.

Panasonic still earns most of its points on chemicals issues; its many models of PVC-free products include DVD players and recorders, home cinemas, video players and lighting equipment. Panasonic gives two examples of products free of BFRs – fluorescent ceiling lamps and a kitchen lamp. Despite putting these PVC-free and BFR-free products on the market, Panasonic has yet to commit to fully eliminating all PVC and BFRs in its full product portfolio.

The company scores poorly on all the e-waste criteria. Voluntary take-back so far does not cover all of Panasonic's product groups but its score has improved with new voluntary take-back for TVs and consumer electronics in the USA which is now nationwide.

## PANASONIC 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				

# PANASONIC 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 BAD (1+)</b>	<b>GOOD (3+)</b>	<b>PARTIALLY BAD (1+)</b>	<b>BAD (0)</b>	<b>PARTIALLY GOOD (2+)</b>
For full marks, Panasonic needs to define its understanding of the precautionary principle as it relates to Panasonic's chemical policy. Panasonic's definition of this principle is confusing with no reference to the outright elimination of potentially hazardous substances and proactive searching for safer substitutes. <b>More information here and here.</b>	Panasonic's web pages on chemicals management contain a lot of detailed information. <b>Summary explanation on management of chemical substances here. More information here and here. Chemical Substances Management Rank Guidelines Ver.5.1</b> (for Products)	Panasonic has committed to eliminating PVC in internal wiring of all products for the Japanese market by end of March 2009 and globally by the end of March 2011. No timelines yet for substitution of PVC external cables and other applications. All new models of mobile phones and computers should be free of BFRs by 2011, but there is no commitment to eliminate BFRs from Panasonic's whole product portfolio. <b>More information.</b>	Panasonic states that its commitment to eliminating PVC will reduce or eliminate the use of phthalates, used primarily as softeners in PVC. Likewise, use of antimony trioxide will be reduced as BFRs are eliminated. No timelines are given. <b>More information.</b> Beryllium is a Managed Substance whose use (above 1000 ppm) needs to be monitored. However, no time line for total elimination. <b>More information.</b>	<b>There are many more examples of PVC-free models</b> including cameras, DVD recorders and LCD projectors. Panasonic gives two examples of products free of BFRs – fluorescent ceiling lamps and a kitchen lamp - & are manufacturing halogen-free printed wiring boards for certain applications and markets. <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 BAD (1+)</b>	<b>PARTIALLY GOOD (2+)</b>	<b>PARTIALLY BAD (1+)</b>	<b>PARTIALLY BAD (1+)</b>	<b>PARTIALLY BAD (1+)</b>
Panasonic supports Extended Producer Responsibility in its <b>global policy</b> and demonstrates this by creating recycling companies in Europe and in the US. But it is not fully committed to supporting Individual Producer Responsibility (IPR) as it consistently confuses financial IPR with physical IPR and IPR with Collective Producer Responsibility on its website and in presentations – even though it DOES support EPR clearly. Panasonic's score risks dropping to zero as in future it will no longer get any marks for supporting EPR or Collective Producer Responsibility. <b>Panasonic ppt on IPR.</b>	Voluntary take-back programmes are not worldwide and do not cover all Panasonic's product groups, mainly mobiles, PCs and toner cartridges. Panasonic's recycling services for PCs now offered in countries where 95% of sales of new PCs. Panasonic has announced US nationwide recycling, together with Sharp and Toshiba including TVs, from Nov 1 2008. This take-back service is now available in all 50 States at 280 drop-off points. <b>More information here and here. Information on the different regions including China.</b>	Information to customers is available in European countries with EPR laws and for electronics, batteries and toner cartridges in US. No information is available about the recycling programme in China. However, the webpages are difficult to navigate and hence the information is not easy to access. <b>More information here, here and here. See here for US.</b>	Panasonic provides data on home appliances and PCs recycled in Japan (2008) (by product weight but not as a percentage of past sales) and recycling quantities for the US (PCs, batteries and other) and Korea. <b>More information.</b> For Europe information on recycling rates (2007) based on current sales is provided, but for just a few countries. For more points Panasonic has to provide EU figures from own brand sampling of return rate, undertaken in at least one Northern EU country, one Southern EU country and one new Member State – and provide indications of how it intends to expand this sampling in the future. <b>Recycling quantities for the US and Korea are also provided.</b>	Panasonic states that in fiscal 2008, it used 3,000 tons of recycled resin mainly in washing machines and refrigerators (the ratio of recycled resin usage was 6.8% in these products). No target for increasing use of recycled plastics. Panasonic needs to provide a target and timeline for increasing use of recycled plastic. <b>More information.</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 GOOD (2+)</b>	<b>PARTIALLY GOOD (2+)</b>	<b>PARTIALLY BAD (1+)</b>	<b>BAD (0)</b>	<b>PARTIALLY BAD (1+)</b>
Panasonic refers to cuts advocated by IPCC (50% by 2050 compared to present level) and the stricter goals that the year 1990 should be adopted as the baseline year and that industrialised countries reduce emissions by up to 30% by 2020. Panasonic supports these concepts and states that drastic cuts are needed. <b>More information.</b>	Panasonic reports its total GHG emissions as 4.27 million Global Warming Potential tons (new FY2008 data). There is no data from its product supply chain. <b>More information.</b> Data on GHG emissions in Japan (p9), globally (p 30) and verification (p 65) are also presented in <b>Panasonic's Environmental Data Book 2008. More information.</b>	Panasonic is committed to reducing the absolute amount of CO2 emissions by 300,000 tons between fiscal year (FY) 2008 to FY2010 compared to FY 2007 level. This represents a 7% cut in emissions between 2008 and 2010. In addition it also promised to lower CO2 emissions to the level of FY 2001 by the end of FY 2011. <b>More information.</b> Targets are also presented in <b>Panasonic's Environmental Data Book 2008</b> (page 7). <b>pdf here.</b>	Panasonic reports that the renewable energy consumed in Japan in fiscal 2008 was 64,000 kWh. The figure isn't given as a percentage of electricity consumption and no targets are set. <b>More information.</b>	Panasonic is not reporting to the latest ES TV standard v.3.0 or to the latest ES External Power Supplies standard v.2.0. 99.2% of TVs launched from 2005 to 2007 meet the previous Energy Star requirement and 64% exceed the standby mode requirement by 50% or more. 100% of External Power Supplies for mobile phones for the Japanese market (Panasonic only sells mobile phones in Japan) meet the previous Energy Star requirement and exceed it in no load mode by approx. 85%. 100% of new PCs launched in 2007 meet the latest Energy Star requirement and 30% exceed the requirements in OFF mode by 30%, and by 41% in Sleep mode. <b>More information.</b>