



## SHARP Ranking = 4.7/10

Sharp drops to 11<sup>th</sup> place from 9<sup>th</sup> with an increased score of 4.7, up from 4.5 points, as a result of other companies rising up the ranking. It gains a point for the verification of its CSR report which includes calculation of greenhouse gas (GHG) emissions.

Otherwise, Sharp scores relatively well for its policy and practice on toxic chemical issues, although it specifies the end of fiscal 2010, rather than calendar year 2010, for its phase-out of PVC and BFRs. It provides a timeline of financial year 2010 for eliminating phthalates and antimony, but there is a lack of clarity on whether the commitment to eliminate phthalates relates to all phthalates or just three. Sharp has launched many models of LCD TVs and solar modules free of PVC (except accessories) and now has 14 models of LED lightings that are BFR-free. However, it fails to show support for improvements to the revised EU RoHS Directive (Restriction of Hazardous Substances in electronics); specifically, a methodology for further restrictions of hazardous substances, and an immediate ban on brominated flame retardants (BFRs), chlorinated flame retardants (CFRs) and PVC vinyl plastic. It continues to score poorly for Chemicals Management as its Manual for Survey of Chemical Substances Contained in Parts and Materials is no longer available to the public. Its new 'Green Procurement Guidelines' are more confusing about eliminating BFRs than the earlier version and the 'List of Substances' document no longer presents criteria for identifying future substances for elimination.

Sharp is weakest on the e-waste criteria. It scores points for its voluntary take-back programme for TVs and consumer electronics in the US, which is nationwide, for providing information to consumers in a few countries on what to do with their discarded Sharp branded products and for reporting on the use of small amounts of recycled plastic. Sharp supports Individual Producer Responsibility (IPR) but needs to clarify this support, as well as show evidence of lobbying for it.

Sharp earns most of its points on energy. It gets maximum points for reporting that all of its TVs meet the latest Energy Star standard and at least half exceed it in standby mode; its external power supplies are not included in the assessment as Sharp has informed us that a universal charger is used in Japan. Sharp's absolute greenhouse gas (GHG) emissions were 103Kt (6 percent) lower in 2008 than 2007. On other energy issues Sharp only 'contributes' to, rather than explicitly 'supports', a mandatory global initiative that requires industrialised countries to reach their peak GHG emissions by 2015 and cut their GHG emissions at least 30 percent by 2020. Sharp discloses GHG emissions from its own operations which are externally verified and reports that 0.5 percent of the electricity it used worldwide in financial year 2009 came from renewable energy sources.

Note: Sharp has updated some of the information on its website since this assessment was made..

## SHARP Overall Score

	BAD (0)	PARTIALLY BAD (1+)	PARTIALLY GOOD (2+)	GOOD (3+)
Precautionary Principle and support for revision of RoHS Directive.				
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 <small>(companies score double on this criterion)</small>				

# SHARP Detailed Scoring

## Chemicals

Precautionary Principle and support for revision of RoHS Directive.	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>PARTIALLY BAD (1+)</b>	<b>PARTIALLY GOOD (2+)</b>	<b>PARTIALLY GOOD (2+)</b>	<b>PARTIALLY BAD (1+)</b>
Sharp shows strong support for and understanding of the Precautionary Principle. Although Sharp will proactively support the revision to the RoHS Directive to ban HBCD and some other specified substances, Sharp fails to score more points as it makes no mention of the need for RoHS 2.0 to adopt a ban on organochlorine and bromine compounds (at least PVC, CFRs, and BFRs within 3-5 years), as well as an end-of-life focused methodology for adding future substance restrictions. <b>More information. Also in Fundamental Orientation Concerning the Environment</b> (point 2.3).	Sharp's <b>Green Procurement Guidelines</b> are more confusing on eliminating BFRs than the previous version and the List of Substances no longer presents criteria for identifying future substances for elimination. <b>More information. List of substances. Green Procurement Guidelines.</b> Sharp scores one point as its Manual for Survey of Chemical Substances Contained in Parts and Materials is no longer available to the public.	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. <b>More information.</b>	Sharp commits to eliminate phthalates and antimony from all products by the end of fiscal 2010, provided it can find suitable alternatives. <b>More information.</b> However, Sharp's 'Confirmation of Use Form' refers only to phthalates in contact with humans. <b>More information.</b> Sharp has phased out the use of antimony compounds used as antifoaming agent in LCD glass. The company has already banned beryllium, but there are many exemptions for which Sharp needs to find substitutes.	Sharp has added LED lightings and small household appliances to its list of products that are PVC free (except accessories), that already includes many models of LCD TVs, solar modules and mobile phones. Many models of LCD TVs, DVD projectors, audio and video products and mobile phones have casings free of BFRs. All AQUOS LCD TVs put on the Japanese market since May 2004 have PVC-free internal wiring and power cords; since 2001 all AQUOS TVs in Japan have housings free of BFRs and antimony. Sharp now has 14 models of LED lightings that are free from BFRs. <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 BAD (1+)</b>	<b>PARTIALLY BAD (1+)</b>	<b>PARTIALLY BAD (1+)</b>	<b>PARTIALLY BAD (1+)</b>
Sharp states that it promotes environmentally conscious product design according to the principle of Individual Producer Responsibility. Sharp needs to clarify that it supports IPR and that this means it supports full internalisation and transparent feedback of its products real end-of-life costs, ie through differentiated financing that accounts for each brand separately (e.g. no longer collective financing such as market share but instead more real and individualised financing such as return share) for WEEE; it also needs to show evidence of lobbying for IPR. 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. <b>More information.</b>	Sharp offers nationwide recycling in the US, including TVs and consumer electronics, which covers all US States. <b>More information here and here.</b> In the US, Sharp is part of US EPA's Plug-In To eCycling. Offers voluntary take-back of toner cartridges in Canada, France, Japan, Australia and New Zealand, and mobiles (Mobile Muster) in Australia.	Links to local Sharp contacts for customers in EU, US, Canada, Japan and Australia are provided but Sharp needs to expand take-back services to non-OECD countries so that it can serve more of its customers. <b>More information. US MRM recycling network.</b>	Sharp provides figures for recycling of TVs, copiers, PCs & washing machines (by wt) for 2005 (40.1%), 2006 (41.9%) and 2007 (48.9%) based on sales 10 years ago, but only for Japan and reports a composite recycling rate for 4 product types, not just TVs. <b>More information. 2009 data here, here and here.</b> The amounts of used electrical products collected in Maine, Minnesota, and in other States, are provided. The amounts collected in Germany, UK and Czech Republic are no longer given as a percentage of current sales but as total figures. <b>More information.</b>	In 2009 Sharp recycled 1,200 tons of post-consumer plastics and has a target to increase this to 1,500 tons in 2012. The data is not presented as a percentage of all plastic sourced. <b>More information. Examples of products using recycled plastic.</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>GOOD (3+)</b>
Sharp contributes to a mandatory global initiative that requires industrialised countries to reach their peak greenhouse gas emissions by 2015 and cut their greenhouse gas emissions at least 30% by 2020, and that calls for worldwide emissions to be reduced at least 50% from 1990 levels by 2050. For full marks, Sharp needs to state explicit support for global (not just industrialised country) emissions to peak by 2015 and explicit support for cuts by industrialised countries of at least 30% by 2020. <b>More information.</b>	Sharp reports on GHG emissions from its own operations in absolute terms and per production unit. <b>More information. 2008 data</b> that shows GHG emissions have decreased since 2007. Sharp regains a point as its verification for its CSR report includes calculation of GHG emission data. <b>Verification details.</b> Sharp deserves credit for providing data giving a breakdown of CO <sub>2</sub> emissions for products during their life cycle. <b>More information.</b>	Sharp has a target to reduce relative CO <sub>2</sub> emissions (per adjusted production unit) by 35% 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. <b>More information.</b> As a result of various measures taken by Sharp, CO <sub>2</sub> emissions from its existing factories will peak by the end of fiscal 2007. Absolute emissions were 103Kt (6%) lower in 2008 than 2007. Future emissions will be expected to decline. <b>More information here and here.</b>	Sharp consumed approx. 13GWh of electricity from renewable sources in fiscal 2009, (2.5GWh more than the previous year), equivalent to about 0.5% of the electricity used by Sharp worldwide in 2009. <b>More information.</b> In Europe some of its companies are operating on renewable sources of energy and 85% of electricity used at its US sites is renewable. However, there is no commitment or timeline to increase the use of renewable energy. <b>More information.</b>	Sharp scores top marks as 100% of Sharp TVs meet the latest ES requirements (version 4.1); almost 90% of these are at least 50% more efficient in standby mode, with 60% at least 30% more efficient in ON mode. In addition, 100% of MFPs qualify under ES1.1, with 17% of them at least 30% more efficient than the changed ES requirements. A wide range of other Sharp products are also ES qualified. Sharp does not make external power supplies for mobile phones in Japan, which uses a universal charger. <b>More information.</b>

## 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 first criterion has been sharpened to require companies not only to have a chemicals policy underpinned by the Precautionary Principle, but also to support a revision of the RoHS Directive that bans further harmful substances, specifically BFRs, chlorinated flame retardants (CFRs) and PVC. The criterion on Chemicals Management remains 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. In the fourteenth edition the criteria for the Precautionary Principle was made more challenging.

For the latest version [greenpeace.org/greenelectronics](http://greenpeace.org/greenelectronics)

Toshiba, Samsung, LGE, Dell and Lenovo continue to be penalised in this latest version of the Guide for backtracking on their commitments to phase out vinyl plastic (PVC) and brominated flame retardants (BFRs). Toshiba is served with a further penalty point for misleading its customers and Greenpeace by not admitting that it would not meet its commitment. In addition, Microsoft is served with a penalty point for the first time for backtracking on its commitment to phase out PVC and BFRs by the end of 2010.