



## LG ELECTRONICS Ranking = 5.7/10 - 1 = 4.7/10

LG Electronics plummets down the ranking from 4<sup>th</sup> place to 11<sup>th</sup>, with its score dropping from 5.7 to 4.7 points. This is due to the penalty point imposed for backtracking on its commitment to have all its products free of PVC and BFRs by the end of 2010. Now only mobile phones (no longer mobile products) will be free of these toxic substances from 2010; the timeline for eliminating them in TVs and monitors has been delayed until 2012. BFRs are still to be eliminated in other product lines like washing machines, but no timeline is given. PVC will be totally banned from use in household appliance models by 2014. LGE has launched new models of mobile phones, some of whose components are PVC and BFR-free. European LCD TVs are produced with halogen free housing, wiring and integrated circuit drive. It provides a timeline of 2012 for eliminating phthalates and antimony – but only in new models of mobile phones (no longer all mobile products) and TVs.

LGE gains a point on its support for IPR because it has recently engaged with a European coalition of NGOs and industry in support of this principle, especially during the revision of the EU WEEE Directive. But, LGE loses a point for lack of progress in extending its take-back programmes beyond mobile phones and geographically beyond the US programme (that includes LG, Zenith and GoldStar brands of TVs), launched over a year ago. It also reports its use of (post-industrial) recycled plastic across all LGE products as 11 percent, with plans to increase this to 25 percent by 2025. The company has compiled figures for e-waste recycling in Europe, Asia and North America and reports a recycling rate in relation to current sales for all regions. Globally, the recycling rate for total IT and telecom equipment is 13.2 percent and consumer equipment (that includes TVs) is 13.7 percent. However, LGE fails to disclose the source of EU recycling data or how it was calculated, if this is not merely extrapolated from market shares.

LGE supports the need for global greenhouse gas emissions to peak by 2015 and commits to cutting absolute GHG emissions by 5 percent below the 2008 level by 2012 and by 10 percent by 2020. On the energy efficiency of its products; LGE reports that 100 percent of its chargers meet and 74.6 percent exceed the latest Energy Star standard (v.2.0) by 50 percent; all PCs meet and 71 percent exceed sleep and standby modes by 30 percent; all TVs meet the latest ES standard (v.3.0) and 50 percent LCD TVs and 41 percent PDP TVs exceed the standby requirements.

## LG ELECTRONICS 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 <small>(companies score double on this criterion)</small>				

# LG ELECTRONICS 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>GOOD (3+)</b>	<b>GOOD (3+)</b>	<b>PARTIALLY BAD (1+)</b>	<b>PARTIALLY BAD (1+)</b>	<b>PARTIALLY BAD (1+)</b>
LGE provides a strong definition of the precautionary principle reflecting the need to take action to eliminate harmful chemicals even though their effects may not be scientifically proven. <b>More information.</b>	LGE's product specs in the Manual for Preparation of Environmental Regulations earn them top marks. <b>More information here and pdf here.</b> LGE's <b>substance list</b> includes future substances to be reduced, including beryllium and antimony.	LGE has backtracked on its commitment to eliminate PVC and BFRs in all its products by 2010. Now only mobile phones will be free of these toxic substances from 2010; PVC and BFRs will also be banned from TVs and monitors developed by 2012. BFRs are still to be eliminated in other product lines like washing machines, but no timeline is given. PVC will be totally banned from use in household appliance models by 2014. <b>More information.</b>	The use of phthalates and antimony will be prohibited in new mobile phones only (not all mobile products) developed from 2012. The use of beryllium oxide has already been phased out, although other beryllium compounds are not referred to. Phthalates, antimony, and beryllium will be prohibited for all TVs and monitors developed by 2012; phthalates will be banned in all household appliance models developed by 2014. For maximum points LGE needs to phase out phthalates, antimony and compounds and ALL beryllium compounds and alloys in ALL products by 2012. <b>More information.</b>	Mobile phones now have halogen-free housing, packaging and main printed wiring board. Three LGE models of Optical Disk Drives and 3 models of HLDS data storage systems supplied to other companies are halogen free. <b>More information here and here.</b> European LCD TVs are produced with halogen free housing, wiring and drive IC. <b>More information.</b> Notebooks are produced with PVC & BFR free housing. <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 BAD (1+)</b>	<b>PARTIALLY GOOD (2+)</b>	<b>PARTIALLY GOOD (2+)</b>	<b>PARTIALLY GOOD (2+)</b>
LGE supports individual producer responsibility, and has recently signed the IPR statement, although it recognises that for IPR to be operationalised, technically and economically feasible identification solutions are needed. For more points, LGE should document its operationalising of IPR and continue to lobby for IPR, inter alia by ensuring that the revised WEEE legislation sets clearer requirements (enforcement criteria) for the implementation of IPR. <b>More information.</b>	LGE provides take-back of its discarded mobile phones in some 50 countries with 392 drop off points globally. About half of these countries represent voluntary take-back. However, large gaps still exist in Africa, Middle East and Latin America. <b>More information.</b> LGE has a nationwide recycling program in the US for LG, Zenith and GoldStar brands of TVs, computer monitors and other consumer electronics products. <b>More information.</b> For more points, LGE needs to provide voluntary takeback of more product types and in more non-OECD countries. <b>More information.</b>	<b>Information</b> to customers on what to do with discarded mobile phones. <b>Information on other discarded products here.</b> <b>Information on take back of consumer electronics other than mobile phones in the US here.</b>	LGE reports its recycling rates for 2008 (as a percentage of past sales) as: 159% for TVs, 59% for computers and 7.1% for mobile phones. LGE has also compiled figures for e-waste recycling in Europe, Asia and North America. <b>More information.</b> To get full marks, LGE needs 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.	LGE reports its use of (post-industrial) recycled plastic across all LGE products as 11%, with plans to increase this to 25% by 2025. <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 BAD (1+)</b>	<b>PARTIALLY GOOD (2+)</b>	<b>PARTIALLY BAD (1+)</b>	<b>BAD (0)</b>	<b>GOOD (3+)</b>
LGE supports that global GHG emissions are to peak by 2015 and the need for global mandatory cuts of GHG emissions proposed by the UN and others, specifically to "reduce CO <sub>2</sub> emissions by at least 50 percent below 1990 levels by 2050 in order to relieve global warming". However, no reference is made to the need for greater cuts by industrialised countries. <b>More information.</b>	LGE reports GHG emissions of 780,008 tonnes in 2007, which have been verified by DNV. The figures include scope 1, 2 and 3, but better transparency on what comprises the scope 2 and 3 emissions is needed. An inventory of overseas subsidiaries is planned to be established by the end of 2009. 2008 data (716,658 tons GHGs) are provided in LGE's Sustainability Report 2008 (pp42/43). Link from the above page. <b>More information.</b> LGE provides a <b>verification certificate.</b>	LGE aims to reduce GHG emissions by 5% (75,000 tons) below the 2008 level by 2012 and by 10% by 2020. <b>More information.</b> More details of LGE's plan for reducing energy costs are in its 2008 sustainability report (p.42–45). LGE's GHG emissions decreased 8.1% from the previous year; LGE should provide information on how these reductions have been achieved. Link from the above page. <b>More information.</b>	LGE states that 1.6% of total electricity purchased in Korea in 2008 is renewable energy; however, this is based on renewable energy supplied through the national grid. Solar panels at one of LGE's facilities are capable of producing 0.00072% of the electricity used by all LGE factories in 2007. But there are no specific targets for increasing use of renewable energy. <b>More information.</b> Details of some of <b>LG Group's renewable energy systems</b> are given. See also Sustainability Report, p.44, link from the above page. LGE is investing in crystalline solar cells. <b>More information.</b>	100% of LG notebook PCs launched after July 2009 meet the new ES standard, with 66% exceeding it by 30%. All TVs qualify for the ES 3.0 standard, 50% of LCD TVs and 41% of PDP TV exceed the standby limit. More than 88% of monitors meet the ES standard and more than 80% exceed its requirements. <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 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/greenelectronics](http://greenpeace.org/greenelectronics)

In versions 11 and 12 of the Guide, PC manufacturers HP, Dell and Lenovo were served a penalty point for backtracking on their commitment to eliminate vinyl plastic (PVC) and brominated flame retardants (BFRs) from their products from the end of 2009. The penalty point on HP has been lifted in this edition. LGE is served a penalty point, also for backtracking on its timeline to eliminate PVC and BFRs in all its products by end of 2010. Dell and Lenovo continue to be penalised in this version.