



PANASONIC Ranking = 3.6/10

Panasonic is in joint 9th place, together with Sony, with 3.6 points. It is let down by its low score on the **Energy** criteria, where it does not provide specific targets for the reduction of greenhouse gas (GHG) emissions from its operations; it has broad targets that include emissions from the life cycle of its products and the use of its renewable energy products, although it does score points for achieving reductions in emissions from its operations. It needs to focus specifically on its planned reductions of GHGs – both absolute and relative – and set ambitious targets to reduce its own GHG emissions by at least 30 percent by 2015 for its operations and dramatically increase renewable electricity use by 2020. Again, its clean energy plan has formulas for energy efficiency and renewable energy, but no specific targets; it has a programme for energy conservation but its current use of renewable energy is very small. Panasonic reports its GHG emissions from its own operations, which are externally verified, but does not report on business travel.

Panasonic is one of the top scorers on **Products**, scoring well for product life cycle as it provides information about its warranties and replacement parts, as well as many examples of innovation to make its products last longer. It has many products that are free from polyvinyl chloride plastic (PVC), and plans to eliminate PVC and brominated flame retardants (BFRs) from its notebooks and mobile phones by the end of 2011, but this commitment does not extend to all of its products. It reports on its use of recycled plastics but does not specify whether this is post-consumer plastic. It scores maximum points for the energy efficiency of its products for reporting that 100 percent of its TVs meet the latest Energy Star standards and exceed the standby power requirement. However, it risks a **penalty point** in future Guide editions as it is a member of trade associations that have commented against stringent energy efficiency standards; it needs to distance itself from such regressive positions with a strong statement.

For Sustainable **Operations**, Panasonic reports the GHG emissions from its supply chain and has achieved some reductions since its programme started in 2009. Its take-back programmes for obsolete products are not worldwide and do not yet cover all Panasonic's product groups, although there is good coverage for its PCs. It has a detailed chemicals management programme, although there are some inconsistencies in comparison to its commitments. On conflict minerals it has requested its primary component and material suppliers to verify the sources of minerals used in their supplies but needs to develop its policy and programme further. Panasonic does have a policy to use FSC paper but does not exclude suppliers that are involved in deforestation and illegal logging.

PANASONIC Overall Score

	ZERO	LOW	MEDIUM	HIGH
Disclose own operational GHG emissions				
GHG emissions reductions and targets				
Clean Electricity Plan (CEP)				
Clean Energy Policy Advocacy				
Product Energy Efficiency				
Avoidance of Hazardous Substances in Products				
Use of Recycled Plastic in Products				
Product Life-Cycle				
Measure and reduce energy consumption in the supply chain				
Chemicals Management and Advocacy				
Policy and practice on sustainable sourcing of fibres for paper				
Policy and practice on avoidance of conflict minerals				
Provides effective voluntary take-back where no EPR laws				

PANASONIC Detailed Scoring

Energy

Disclose own operational GHG emissions	GHG emissions reductions and targets	Clean Electricity Plan (CEP)	Clean Energy Policy Advocacy
2/3	1/8	2/8	0/8
<p>Panasonic gives an overview of its global emissions from the whole life cycle of its products. More information.</p> <p>Emissions of GHGs from production activities were 4 million tons CO₂-e in 2011, slightly higher than 3.94 million tons in 2010. More information.</p> <p>Emissions from GHGs other than CO₂ were 14,000 tons. More information.</p> <p>Emissions of GHG from non-manufacturing sites were 171,000 tons CO₂-e in 2011. More information.</p> <p>Panasonic also reports in detail on its GHG emissions from logistics, and on the introduction of 'eco-travel' company cars, but not on GHG emissions from business travel. More information.</p> <p>Independent Assurance report and calculating standards.</p> <p>Panasonic provides background information and analysis on the source of its GHG emissions. For more points it needs to report its GHG emissions from business travel.</p>	<p>Panasonic will endeavor to ensure that CO₂ emissions from its entire business operations—not only from its own production activities but also from the use of its products by customers—peak out by 2018. As a result of product energy efficiency, use of renewable energy and reduced emissions from operations, CO₂ emissions from its entire business operations were reduced by 35.18 million tons in fiscal 2011. Panasonic aims to increase this amount to 37 million tons and 50 million tons in fiscal 2012 and 2013, respectively, and eventually to 120 million tons in fiscal 2019. However, specific figures for the reduction of GHG emissions from operations are not provided. More information.</p> <p>Panasonic achieved 0.84 million tons in CO₂ emissions reductions in its production activities by fiscal 2010, far exceeding its target of 0.3 million tons from fiscal 2007 (per base unit). In fiscal 2011 this increased to 2.11 million tons. Absolute quantities of GHG emissions reduced from 4.59 million tons in 2006 to 4 million tons in 2011. More information.</p> <p>Panasonic's approach needs to focus specifically on its planned reductions of GHGs – both absolute and relative. It needs to set ambitious targets and aim to reduce its own GHG emissions by at least 30% by 2015 for its operations and dramatically increase renewable electricity use by 2020.</p>	<p>Formulas are given for increasing use of renewable energy, reducing emissions from operations and increasing product energy efficiency, as part of Panasonic's goal to 'peak out' by 2018, but no specific targets are given. More information.</p> <p>Panasonic now provides a figure for the amount of renewable energy used globally; in fiscal 2011 it was 2,190,000 kWh. Previously it reported that the renewable energy consumed in Japan in fiscal 2010 was 173,000 kWh, up from 53,000 kWh in fiscal 2009. The figure isn't given as a percentage of electricity consumption; however, this is a tiny proportion of its electricity consumption. To further promote energy conservation and reduce CO₂ emissions, from fiscal 2011 Panasonic has selected "Top Runner Factories" as a model, which create three year implementation plans for energy conservation and use of renewable energy. Innovations and techniques are then shared with other factories. More information.</p> <p>Panasonic has been implementing an energy conservation project at its factories in Malaysia since fiscal 2005. More information.</p> <p>An example of renewable energy use at Kasai Green Energy Park is given.</p> <p>On July 1, 2011, Panasonic established its "Corporate Electricity Saving Division" in response to the change in electricity supply situation caused by the Great East Japan Earthquake. More information.</p>	<p>Panasonic is actively engaged in various partnerships and communications with governments, through direct communication and participation in concrete projects. Some examples are given below. Dialogue with key stakeholders in Europe.</p> <p>Participation in Singapore International Energy Week 2010.</p> <p>Sustainable Smart Town Project in Fujisawa, Japan.</p> <p>More information.</p> <p>Asia's First Test-bed Project on Total Energy Solutions for Public Housing.</p> <p>More information here and here.</p> <p>Panasonic in general supports the GHG reduction target of 25% by 2020, announced by the Japanese Prime Minister, the adoption of the year 1990 as the baseline year and the need for industrialised countries to reduce emissions by 30% by 2020. Panasonic supports the view that global GHG emissions must peak out around ten to fifteen years from now. Panasonic needs to support the call for GHG emissions to peak by 2015; for industrialised countries to reduce emissions by AT LEAST 30%. More information.</p>

Greener Products

Product Energy Efficiency	Avoidance of Hazardous Substances in Products	Use of Recycled Plastic in Products	Product Life-Cycle
5/5	2/5	1/3	2/3
<p>Panasonic aims to reduce GHG emissions through energy saving products by 32 million tons in fiscal 2012 and 45 million tons in fiscal 2013. In fiscal 2011, Panasonic achieved reductions of 31.17 million tons, largely due to the Japanese government's eco-point incentive programme. More information.</p> <p>100% of 2011 TV models (44 models) meet ENERGY STAR requirement (ver. 4.2) for both on-mode and standby power requirements. 36 models exceed the standby power requirement by 80% and the remaining 8 models exceed by 70%. 2011 TV models exceed the on-mode requirements by approx. 36% on average and a representative LCD model, TC-L37E3 exceeds by 59%. All (100%) of 37 notebook series currently available qualify for ENERGY STAR requirement (ver. 5.2). (ENERGY STAR qualification based upon Total Energy Consumption (TEC) calculations in kilowatt hours per year (kWh)). Its notebook computers are approx. 25% better than ENERGY STAR TEC requirements on average. More information.</p> <p>TVs have other power saving functions. More information. (only in Japanese)</p> <p>PCs have a peak load time control system. More information. (only in Japanese)</p> <p>However, Panasonic is a member of ITI and CEA, industry associations that recently made comments against stricter energy efficiency standards (a. the inclusion of computers and servers; b. comments against battery chargers systems regulation, respectively) in the scope of the California Appliance Efficiency Regulations. Panasonic needs to reiterate its support wherever possible for more stringent energy efficiency standards for all electronic products. It needs to distance itself from such regressive positions or risk incurring a penalty point in future editions of the Guide.</p>	<p>All mobile phones (sold in Japan only) have been PVC-free (excluding internal wiring in a charger) from FY2005 models onwards. Since April 2007, Panasonic has been selling PVC-free notebook computers (excluding separate AC cord), in Japan only. There are many examples of PVC-free models, including healthcare products and LED panel display units. Panasonic gives examples of fluorescent ceiling lamps that are free of BFRs – & are manufacturing halogen-free printed wiring boards for certain applications and markets. Panasonic needs to show progress by bringing new PVC and BFR free products onto the market. Panasonic still plans to eliminate the use of PVC in notebooks by the end of 2011 globally, but notes that there are technical issues to do with the development of PVC-free AC cords. All new models of mobile phones and computers should be free of BFRs by end of 2011, but there is no commitment to eliminate BFRs and PVC from Panasonic's whole product portfolio.</p> <p>Panasonic has replaced PVC with a substitute for internal wiring of all products for the Japanese market by end of March 2009 and globally by end of March 2011. However, 54% of products – such as washing machines, are exempted due to technological problems, and the commitment is limited to internal wiring. More information here and here.</p> <p>Panasonic states that its commitment to eliminating PVC will reduce or eliminate the use of phthalates, used primarily as softeners in PVC. But what about other applications of phthalates e.g. in adhesives? Likewise, use of antimony trioxide will be reduced as BFRs are eliminated. No timelines are given. There is no reference to or plan to phase out the use of beryllium and compounds. More information.</p>	<p>Panasonic used approx. 6,000 tons of recycled plastic for its products in fiscal 2011. It's not clear whether this also includes post-industrial recycled plastics. More information.</p> <p>Panasonic gives some examples where recycled plastics are used in products. Total usage of plastics in fiscal 2010 for washing machines and refrigerators was 27,179 tons including 3,759 tons of recycled resin including that recycled within production processes. The ratio of recycled resin usage was 13.8%. More information.</p> <p>Panasonic needs to provide a target and timeline specifically for increasing use of post-consumer recycled plastic and clarify the proportion of post-consumer recycled plastics used in its data.</p>	<p>Spare parts are available for 8 years for TVs and 6 years for PCs. Warranties are 1 year. (in Japanese) More information.</p> <p>PCs use a battery economy mode function that limits battery up to 80% and increases the battery life 1.5 times. (in Japanese) More information.</p> <p>The EVOLTA battery (primary battery) is the world's longest lasting battery.</p> <p>The rechargeable battery has up to 1600 charging cycles.</p> <p>Panasonic launched a wireless charging pad for mobile phones, smart phones and games and can be used universally as long as devices are compatible with the global standard. It removes the need for separate charges and wires. More information. (only in Japanese)</p> <p>Panasonic released a range of LED lighting with a wide light distribution angle which is almost equivalent to angle of incandescent lights, with a service life of 40,000 hours. More information.</p> <p>Plasma panels in VIERA TVs last the equivalent of 100,000 hours (30 years at 8 hours a day). More information.</p> <p>Panasonic is rewarded with 2 points for providing this information.</p> <p>For maximum points its warranties need to be longer; it also needs to show some innovative measures that increase lifespan and durability of whole product systems, rather than only individual parts.</p>

Sustainable Operations

Measure and reduce energy consumption in the supply chain	Chemicals Management and Advocacy	Policy and practice on sustainable sourcing of fibres for paper	Policy and practice on avoidance of conflict minerals	Provides effective voluntary take-back where no EPR laws
2/5	2/5	1/3	1/5	4/8
<p>Panasonic manufactures many of its products in its own factories and emissions from these are reported above (E1).</p> <p>Panasonic asked suppliers belonging to Panasonic Kyoeikai (small and medium sized enterprises supporting the Panasonic Group's production activities) to identify and reduce their CO₂ emissions. In response, about 100 suppliers began conducting the necessary activities in fiscal 2009, and although overall emissions increased in fiscal 2011 year on year due to various factors, overall, the CO₂ emissions of suppliers decreased by about 11% compared with emissions prior to the launch of the project. Panasonic intends to identify total CO₂ emissions from the entire supply chain in the future. As the first step, it will cooperate with suppliers and materials manufacturers with high volumes of emissions. In order to supply products to Panasonic these suppliers will need to identify the amount of CO₂ they have emitted.</p> <p>More information.</p>	<p>Panasonic refers to the precautionary approach to hazardous substances as defined by the Rio Declaration and aims to voluntarily reduce or discontinue their use in case of any environmental risks. However, Panasonic makes no mention of the need for RoHS 2.0 to adopt a ban on organo- chlorine 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.</p> <p>More information.</p> <p>Panasonic's web pages on chemicals management contain a lot of detailed information.</p> <p>Summary explanation on management of chemical substances.</p> <p>More information.</p> <p>Chemical Substances Management Rank Guidelines Ver. 8 (for Products). Only specified BFRs are listed, despite the commitment to phase out BFRs in mobile phones and computers by the end of 2011.</p> <p>More information.</p> <p>Also see Chemical Substance Management Rank Guideline for Factories Ver.4. Substances restricted for use in products (eg. PVC) are not listed.</p> <p>Also, beryllium alloys are listed for 'reduction' and beryllium is 'prohibited', whereas it is not listed in the Guidelines for Products.</p> <p>More information.</p>	<p>In 2008 Panasonic agreed a policy with WWF to use FSC certified paper, with the aim of using 100 tons by 2010. See Eco Ideas 2009, p.42.</p> <p>Panasonic created the Panasonic Group Green Procurement Guidelines for Wood to conserve biodiversity and sustainable resource usage after thorough consultations with WWF Japan. The Guidelines divide various wood and wooden materials that may be procured into three categories. Panasonic reports on the percentage of wood and wooden materials used and its progress. It aims to reduce its procurement of Category 3 wood & wooden materials – those that are not confirmed to be legally logged - to nearly zero by fiscal 2013.</p> <p>More information.</p> <p>Panasonic needs to develop a paper procurement policy which excludes suppliers that are involved in deforestation and illegal logging and sets specific targets to reduce paper use and increase use of recycled and FSC fibres.</p>	<p>Panasonic provides details of its participation in a pilot project to implement the OECD guidance on conflict minerals. In February 2011 it requested its primary component and material suppliers to verify the sources of minerals used in their supplies. More information.</p> <p>It has not yet published smelters or suppliers, however, as several companies have already done.</p> <p>In February this year, Panasonic requested its primary component and material suppliers to verify the sources of minerals used in their supplies, but it is unclear whether this constitutes an audit or not. Panasonic is active in the EICC smelter audit process but does not have an internal policy for suppliers on conflict minerals. It has not signed up to the Public Private Alliance, made a statement on the need for a multi-stakeholder certification process or publicly committed to implement the OECD due diligence guidelines. Panasonic did not issue a statement in support of the legislation before it passed, or against the Chamber of Commerce lawsuit. It did not join the multi-stakeholder submission to the SEC on conflict minerals.</p> <p>Panasonic has not responded to requests for meetings on conflict minerals and deleted comments on its Facebook page related to conflict minerals in October 2011, despite keeping spam messages on its page.</p>	<p>Panasonic signed an agreement to establish a joint company for recycling business in Hangzhou, China, in May 2011, for recycling home appliances in China.</p> <p>More information.</p> <p>Voluntary take-back programmes are not worldwide and do not yet cover all Panasonic's product groups, mainly mobiles, PCs, TVs and toner cartridges.</p> <p>Panasonic's recycling services for PCs now offered in countries where 95% of sales of new PCs. Panasonic's US take-back programme is nationwide, includes TVs, audio and video and is now available in all 50 States at 310 drop-off points.</p> <p>Information on the different regions, including Europe, China, India and Australia is provided.</p> <p>In Australia Panasonic plans to implement a National Television and Computer Product Stewardship Scheme in 2011. It also plans to expand its programme in India in FY 2011 across key cities in India that include Mumbai, Pune, Delhi, Kolkata and Ahmedabad. Panasonic needs to continue to expand its take-back to more non- OECD countries and product groups. More information here and here.</p> <p>Panasonic India gives information about its voluntary take-back for TVs in 3 cities in India.</p> <p>Information to customers is available in European countries with EPR laws and for electronics, batteries and toner cartridges in US.</p> <p>However, the information on how to recycle is not always easily accessible to customers. No information is available to consumers about the recycling programmes in China and Japan.</p> <p>Panasonic provides data on home appliances and PCs recycled in Japan in fiscal 2010 and recycling quantities for the US (PCs, batteries and other) and Korea.</p> <p>More information.</p> <p>For PCs. For Europe information on recycling rates for 2007 - 2010 based on current sales is provided for 18 countries. Panasonic has undertaken sample tests for the return share of TVs in seven European countries. Updated recycling quantities for the US and Korea are also provided. For more points Panasonic needs to calculate the quantities recycled in relation to past sales for other regions – the US and Korea as a minimum - and establish a target to increase the quantities recycled</p> <p>More information.</p>

Ranking Criteria Explained

Version 17, released in November 2011, of the Greenpeace Guide to Greener Electronics ranks companies in the electronics industry under three headings, Energy & Climate, Greener Products and Sustainable Operations.

The criteria used in version 17 of the Guide to evaluate the companies reflect Greenpeace's demands to electronics companies to:

- Reduce emissions of greenhouse gases (GHGs) with energy efficiency and renewable energy
- Clean up their products by eliminating hazardous substances;
- Take-back and recycle their products responsibly once they become obsolete,¹ and;
- Stop the use of unsustainable materials in their products and packaging

Previous versions of the Guide ranked companies on the following criteria: Chemicals, E-waste, and Energy. The ranking in version 17 sees a major change as it reorganizes the individual criteria under new headings (Energy & Climate, Greener Products and Sustainable Operations).

In areas where Greenpeace has seen some progress, multiple criteria have been folded together into one overall criterion, putting the focus on the implementation of previous commitments. In places where the industry needs to make further progress, such as energy policy and practice, we have re-written and strengthened the current criteria. Finally, new criteria on the sourcing of paper products and conflict minerals have been added under Sustainable Operations and on product life cycle under Greener Products.

In addition to these structural changes, the scoring system has also been changed. Depending on the complexity of the criteria the maximum points awarded per criteria will vary between 3, 5 and 8 points. There will no longer be double points for any criteria in the new scoring system. The maximum score is 69, which is converted into a score out of 10.

Given the urgency of tackling climate change, Greenpeace has re-focused and updated its energy criteria to encourage electronics companies to improve their corporate policies and practices with respect to Energy and Climate.

Criteria on Energy and Climate

The criteria that companies will be evaluated on are:

1. Disclosure of Greenhouse Gas (GHG) emissions
2. Commitment to reduce the company's own short term and long term GHG emissions
3. A Clean Energy Plan which includes increasing use of Renewable Energy (RE) and energy efficiency measures to implement cuts in GHGs
4. Advocacy for a Clean Energy Policy at national and sub-national level

Criteria on Greener Products

These criteria focus on the environmental performance of consumer electronics, across a number of different issues:

1. Energy efficiency of new models of specified products
2. Products on the market free from hazardous substances
3. Use of post-consumer recycled plastics in products
4. Product life cycle

Criteria on Sustainable Operations

These criteria examine how companies implement environmental considerations during manufacture in their supply chain through to the end-of-life phase of a product:

1. Reduction of supply chain GHG emissions by major suppliers
2. Policy, practice and advocacy on chemicals management
3. Policy and practice on sustainable sourcing of fibres for paper
4. Policy and practice on avoidance of conflict minerals
5. Producer responsibility for voluntary take-back of e-waste

Company scores

Companies have the opportunity to improve their score, as the Guide will be periodically updated. 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 e-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 electronic 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 criteria was made more challenging.

The 17th edition has been re-organised, to reflect campaign priorities and to provide a more comprehensive assessment of the areas where electronics companies impact the environment, under the three headings Energy & Climate, Greener Products and Sustainable Operations. Many elements of the previous criteria remain but they have been re-arranged and updated, with a greater focus on implementation rather than commitment.

It now ranks 15 top manufacturers of personal computers, TVs and mobile phones; Fujitsu, games console producers Nintendo and Microsoft are no longer included and the mobile phone manufacturer Motorola has been replaced with RIM.

For the latest version, see www.greenpeace.org/rankingguide

Sony is issued with a penalty point on its total score as it has made comments in opposition to energy efficiency standards in California, (specifically on the CA Title20 Battery chargers systems and the SB 454: Enforcement of energy efficiency appliance standards).

Sony and LGE are listed as clients of Asia Pulp and Paper (APP), which is responsible for illegal logging and deforestation in Indonesia. Sony and LGE should immediately and publicly commit to stop sourcing any paper or packaging needs from APP or risk being penalised in future versions of the Guide.

Companies that are members of the trade associations ITI and CEA are warned that they risk incurring a penalty point in future editions of the Guide; this affects all companies apart from Sony Ericsson, LGE and Acer. These industry associations have recently made comments against stricter energy efficiency standards in the scope of the California Appliance Efficiency Regulations (a. the inclusion of computers and servers; b. comments against battery chargers systems regulation, respectively). Companies need to distance themselves from such regressive positions and reiterate their support wherever possible for more stringent energy efficiency standards for all electronic products.

Penalty points previously imposed on Toshiba, Samsung, LGE, Dell and Lenovo for backtracking on their commitments to phase out vinyl plastic (PVC) and brominated flame retardants (BFRs) have been lifted as a result of progress made in bringing PVC/BFR-free products onto the market.

¹. The two issues are connected: the use of harmful chemicals in electronic products prevents their safe recycling once the products are discarded.