



NOKIA = 3rd position, 4.9/10

Nokia takes 3rd position in the re-launched Guide, finally losing its place at the top of the table, a position that it has enjoyed since v.8 in September 2008. It slips behind both HP and Dell due to its weaker performance on the **Energy** criteria. It needs to further develop its clean electricity plan to demonstrate how it will reduce future emissions through energy efficiency and renewable energy; it also needs to set new targets to cut its operational greenhouse gas (GHG) emissions by at least 30 percent by 2015 and to increase its use of renewable energy to 100 percent by 2020. It has reached and exceeded its targets to reduce facility-related carbon emissions by 10 percent in 2009 and 18 percent in 2010 compared to 2006 levels. It also gets maximum points for disclosure of externally verified GHG emissions from its own operations. However, its lack of specific examples of clean energy policy advocacy means that it scores no points on this criterion.

On **Products** it scores no points for the use of recycled plastics; although it now reports that the Nokia 700 is its first smartphone to use recycled plastics which make up 33 percent of the plastics used, it needs to expand its use further and report total use as a percentage of all plastics used in order to score points. To score on the products life cycle criteria it needs to publicly disclose the length of warranty and spare parts availability for its main product lines. It scores close to maximum points on the new criteria for hazardous substances in products, with all of its products free from almost all the specified hazardous substances, missing the target because it does not include all antimony compounds in its restrictions on hazardous substances. It continues to score maximum points for the energy efficiency of its products; it has achieved its target of reducing no-load power used by its chargers by 50 percent from 2006 to 2010 and has set a new target of 75 percent by 2012. However, Nokia 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.

Nokia scores most of its points on the new Sustainable **Operations** criteria, mainly for its comprehensive voluntary take-back programme, which spans 100 countries providing almost 6,000 collection points for end-of-life mobile phones with accessible information provided to customers. It fails to score maximum points as although it is recycling increasing quantities of e-waste, the quantities are still small and are not reported as a percentage of past sales. Nokia also does reasonably well for reporting emissions of GHGs from its supply chain, its chemicals management programme and policies and for its programme to address conflict minerals. However, it fails to score on the paper sourcing criteria and needs to develop a paper procurement policy which excludes suppliers that are involved in deforestation and illegal logging.

Note: Nokia has updated its web-pages since this assessment was made. The web-links have been updated but information may not reflect the assessment.

NOKIA 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				

NOKIA Detailed Scoring

Energy

Disclose own operational GHG emissions	GHG emissions reductions and targets	Clean Electricity Plan (CEP)	Clean Energy Policy Advocacy
3/3	4/8	2/8	0/8
<p>Nokia reports that the energy consumption by its facilities resulted in 14,000 tonnes of direct and 226,000 tonnes of indirect GHG emissions in 2010. (p.76, Sustainability Report 2010). Nokia provides a reasonably detailed breakdown and analysis of its GHG emissions. Verification of the data is provided by PricewaterhouseCoopers Oy is provided (p.102).</p> <p>Nokia provides a life cycle analysis of a typical Nokia device (p132).</p>	<p>Nokia's aspirational target is to reduce (GHG) emissions caused during the whole device life cycle by over 60% by the year 2020 compared to the level in 2000.</p> <p>Nokia is committed to reduce GHG emissions in its offices, R&D sites and manufacturing facilities by a minimum of 30% by 2020 (2006 baseline). It also has a relative target to reduce GHG emissions per person working in Nokia offices and R&D by a minimum of 23% by 2012, compared to year 2006. (p. 72 Sustainability Report 2010). Nokia reached and exceeded its targets to reduce facility-related carbon emissions by 10% in 2009 and 18% in 2010 compared to 2006 levels. (p. 74). Nokia does not currently have a target to increase use of renewable energy; its first climate strategy published in 2006 set a target to increase green electricity purchases from 25% of total electricity consumption in 2007 to 50% in 2010; this was integrated into a broader goal to reduce carbon emissions by 18% in its 2008 strategy update. (p.81).</p> <p>Nokia's aspirational target is to reduce the GHG emissions caused during the whole device life cycle by over 60% by the year 2020 compared to level in 2000. See 'Climate strategy: minimising greenhouse gas emissions'.</p> <p>Nokia needs to set new targets to cut its operational GHG emissions by at least 30% by 2015 and to increase its use of renewable energy to 100% by 2020.</p>	<p>Nokia's energy efficiency initiatives include greener buildings and saving energy within buildings technical systems; full details are in Nokia's Sustainability Report 2010, p76 – 80.</p> <p>Another climate target is to "continue the development of our Green Data Center strategy that is already implemented in Finland, delivering targeted cooling, environmentally friendly backup power and power-efficient server racks". (p.73)</p> <p>Nokia does not currently have a target to increase its use of renewable energy, although it has been increasing its share of renewable energy since 2006; in 2010 the share of renewable energy was equivalent to 36% of total electricity consumption, meeting its target to reduce carbon emissions from facilities by 18% by 2010. However, this was less than its original target of 50%. Sustainability Report 2010 (p.81)</p> <p>Nokia's intention is to "maintain the purchase of renewable energy via grid and via renewable energy certificates approximately in the current level of 35%. Slow development of renewable energy markets in some of the countries we operate continues to be a challenge for us."</p> <p>See 'Our first onsite installations for the generation of renewable energy are in place'</p>	<p>Nokia lists the international organisations driving sustainability that it works with, such as the Global e-Sustainability Initiative and the ICT for energy efficiency forum.</p> <p>More information.</p> <p>More specific details about Nokia's advocacy for clean energy are not provided.</p>

Greener Products

Product Energy Efficiency	Avoidance of Hazardous Substances in Products	Use of Recycled Plastic in Products	Product Life-Cycle
5/5	4/5	0/3	0/3
<p>New chargers launched in July are the AC-11 with 5 stars, AC-16 with 4 stars, according to the voluntary agreement EU & industry IPP project rating system.</p> <p>Between 2000 and 2009 Nokia has reduced the average no-load power consumption of its chargers by over 80%, and in its best in class chargers by over 95%.</p> <p>See 'new power generation'</p> <p>Nokia reached and exceeded its target of reducing no-load power used by its chargers by 50% from 2006 to 2010. (Sustainability Report 2010, p.74). Nokia's aspirational target is to reduce the (GHG) emissions caused during the whole device life cycle by over 60% by the year 2020 compared to the level in 2000. Targets for product use are: reduce the average charger's no-load power consumption by 75% by 2012 (2006 baseline); continue to study new technologies which will use renewable energy, such as solar panels and kinetic energy, and develop solutions that enhance the energy efficiency in its products (p.73).</p> <p>Nokia is a member of the ICT for energy efficiency forum.</p> <p>See 'industry co-operation'.</p> <p>However, Nokia 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. Nokia 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>Nokia is close to getting maximum points as it has achieved its goal to phase out brominated compounds, chlorinated flame retardants and antimony trioxide; however, there is no target to phase out other antimony compounds.</p> <p>Nokia eliminated remaining uses of PVC in 2006 and the use of phthalates has been restricted since 2005. It banned the use of beryllium oxide in 2004 and the use of all other beryllium compounds has been restricted since 2010, for all new products. See 'Phasing out restricted flame retardants'.</p> <p>From the beginning of 2010, all new Nokia products must be free of bromine, chlorine and antimony trioxide as defined in the Nokia Substance List.</p> <p>Eco profiles.</p> <p>Case study on phasing out brominated and chlorinated compounds and antimony trioxide.</p>	<p>Nokia continues to actively research the use of recycled plastic and is working on to find ways to overcome durability issues that currently result from the lower quality of available recycled plastics. Nokia 700 is the first Nokia smartphone to introduce the use of recycled plastics. The total amount of eco plastics – including recycled plastics and bio plastics – in this device is 33 % of all plastics used, and 11 % of the total mass of the device. To score points it will need to add more examples of products using recycled plastics and publish overall figures on the overall quantities of recycled plastics used as a percentage of total plastics use.</p> <p>See: 'Sustainable futures with innovative materials'.</p>	<p>Nokia states that "the possibility to download software updates allows our customers always have the best performance and the latest features in their Nokia device - thus also increasing its life span. The possibility to download the SW update over the air also reduces the need to travel to the nearest Care point, saves time and environment."</p> <p>More information.</p> <p>Nokia provides eco profiles for all its products.</p> <p>Details about the average length of product warranty are not provided.</p> <p>Nokia needs to publicly disclose the length of warranty and spare parts availability for its main product lines. For maximum points it also needs to show some innovative measures that increase lifespan and durability of whole product systems, rather than only individual parts.</p> <p>Eco profiles.</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
3/5	3/5	0/3	3/5	7/8
<p>Nokia reports its supply chain emissions of CO₂-e as 6,880,000 tonnes in 2010. (Sustainability Report p.134), which are verified (see E1).</p> <p>Nokia states that "By the end of 2012: we aim to ensure that all our key suppliers set energy efficiency and greenhouse gas emission reduction targets."</p> <p>See: 'Climate Strategy: minimising greenhouse gas emissions'.</p> <p>Nokia has identified component types and processes that are more energy intensive than others and requires suppliers of these components or processes to measure and monitor their energy consumption and greenhouse gas emissions. Direct suppliers representing 96% of Nokia's total spend were engaged in this activity. Remaining direct suppliers are also encouraged to monitor and measure their energy and greenhouse gas emissions, of whom many are voluntarily reporting. However, there are no details about the exact stages of the supply chain this represents.</p> <p>More information.</p> <p>During 2010, 71.9% of hardware suppliers that account for the highest environmental impact or are strategically important, had company level reduction targets for energy and carbon dioxide (equivalent) in place and monitored. In the longer term Nokia would like all suppliers to have reduction targets in place (Sustainability Report p.94).</p>	<p>Nokia has already phased out some harmful chemicals and identified future substances for elimination. It follows the precautionary principle and aims to go beyond legislation and compliance.</p> <p>Nokia states that it "is actively contributing to the development of systematic criteria and processes for improved RoHS legislation. Nokia continues to support effective RoHS legislation to complement but not contradict with other legal requirements. Nokia also supports "further restrictions for chlorinated and brominated compounds, as already committed to in our ambitious targets" but does not openly support restrictions on at least PVC, CFRs and BFRs in the next 3-5 years in RoHS 2.0.</p> <p>More information.</p> <p>New version (2011) of Nokia's substance list.</p> <p>The list also specifies a ban on use of certain restricted substances by suppliers but is not to be generally applied to raw materials and process chemicals. Nokia's requirements for the control of materials and substances used by suppliers in their processes are defined in the Nokia Supplier Requirements for Environmental Management; for more points this needs to be publicly available.</p>	<p>Nokia states that "More than 95% of our packaging is made from renewable, paper-based materials, of which up to 60 % is recycled content" and that it is working with its suppliers "to increase the amount of recycled content in our packaging". Nokia 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>More information.</p>	<p>Nokia requires its suppliers "to confirm that our ban of conflict metals is respected, and our requirements fulfilled - key suppliers are required to "map their supply chains for the metals in their components back down to smelter and then to source where possible."</p> <p>Nokia is currently developing its "conflict metal policy that will complement our current, strict supplier requirements. The policy will be published during 2011".</p> <p>See: 'Human rights and the supply chain'.</p> <p>Nokia is active in the EICC conflict-free smelter program but has not yet published smelters or suppliers, as several companies have already done. It has a new internal policy for suppliers on conflict minerals, but does not yet have third party monitoring. Although it has signed up to the Public Private Alliance it has not made statements on the need for a multi-stakeholder certification process or made a public commitment to implement the OECD due diligence guidelines.</p> <p>Nokia did not issue a statement against the Chamber of Commerce lawsuit and did not join the multi-stakeholder submission to the SEC on conflict minerals.</p> <p>Nokia participated in the OECD due diligence drafting and has actively reached out to NGOs after the movie "Blood in the Mobile."</p>	<p>Nokia has around 6,000 recycling points in almost 100 countries around the world. The information provided is very good, with addresses, phone numbers and directions to Nokia Care Centres.</p> <p>More information.</p> <p>Although Nokia has a programme in Argentina this isn't listed on its global website. More information.</p> <p>Take-back points.</p> <p>Nokia provides updates on its recycling programmes in India, China, Brazil, SE Asia, Norway, Australia, Middle East and North America in its Sustainability Report (p.40). New programmes were launched in Africa, the Middle East (Saudi Arabia, Lebanon and Uganda), Sri Lanka, Uruguay, Pakistan and Paraguay and in Europe in Belarus, Bosnia, Malta and Ukraine.</p> <p>Nokia reports that 415 tonnes of e-waste was collected in 2010 compared to 373 in 2009. (p.138), however, this is not reported as a percentage of sales.</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.