



SAMSUNG
7th Position, 4.2/10

Samsung moves up to 7th position, with 4.2 points in this year's Greenpeace Guide to Greener Electronics. Samsung is close to achieving a revised goal of eliminating some of the most hazardous substances from its products. Although progress is being made, this revised commitment only covers some product groups; TVs and household appliances are no longer included.

Samsung does reasonably well on other **Products** criteria. The company is one of the leaders on product life cycle, as it provides warranties and spare parts information as well as details of innovations to extend product lifetimes. Samsung is quite close to scoring maximum points on energy efficiency.

Samsung's **Energy** score increased due to progress on reporting greenhouse gas (GHG) emissions information, including supply chain data. Samsung fails to score additional points with its carbon intensity target of 24% by 2015, especially as its intensity emissions grew 9% (by revenue) last year alone. Samsung's renewable energy use stays low at 0.2% of global electricity use. An absolute reduction target of at least 30% by 2015, as well as the ambitious 100% renewable energy by 2020, would earn the company more points. Samsung gets 1 point for supporting GHG emission cuts by industrialised countries of at least 30% as a group by 2020.

Samsung scores most of its points for **Sustainable Operations**, due to its relatively good e-waste take-back programme and information. The company must extend this programme to cover its entire product range. It has extend its reported recycling rate beyond South Korea, starting with India, and this should continue. Samsung's chemicals policy sets ways to identify future substances of concern, but the company continues to lack a restricted substances list for manufacturing. Samsung has pledged to sign a compliance agreement with its suppliers that prohibits the use of conflict minerals, and it needs to publicly map its smelters or suppliers. Samsung scores a point for reporting on its paper use and aiming to increase the use of FSC paper. It needs to develop a paper procurement policy which excludes suppliers that are involved in deforestation and illegal logging.

		ZERO	LOW	MEDIUM	HIGH
ENERGY	Disclose and set targets for operational GHG emissions and RE supply				
	Disclose and set targets for supply chain GHG emissions and RE supply				
	Clean Electricity Plan (CEP)				
	Clean Energy Policy Advocacy				
PRODUCTS	Product energy efficiency				
	Avoidance of hazardous substances in products				
	Use of recycled plastic in products				
	Product life cycle				
OPERATIONS	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 there are no EPR laws				

Energy		8/32
Disclose and set targets for operational GHG emissions and RE supply	<p>Samsung reports its global scope 1 & 2 CO₂-e emissions of 11,304,000 tons for 2011, up from 10,655,000 tons for 2010. The intensity of emissions reduced to 4.46 CO₂ / KRW 100 million in 2011 from 5.11 tons in 2010. Samsung provides a breakdown by region and by source of emissions. Samsung publishes a verification certificate from the Korea Energy Management Corporation, although the certificate could be made more legible.</p> <p>Business travel is reported as 112,597 tons CO₂-e (compared to 101,000 tons in 2009) and is approximately 0.2% in total global GHG emissions (Scope 1, 2 & 3). Total global GHG emissions (Scope 1, 2 and 3) are estimated at about 56.8 million tons in 2011. Scope 1 and 2 represent about 20% of this, with the majority (approximately 80%) from indirect GHG emissions (Scope 3). Product use represents the largest proportion at about 57% of total GHG emissions. A further breakdown of GHG emissions data is given in 2012 Sustainability Report, p.73 & 74.</p> <p>Samsung aims to “reduce the GHG emissions by 24% compared to BAU (business as usual) by 2015 to meet the Korean government’s mid-term GHG reduction target and policy”. However, it is not clear if this target is for absolute reductions as there is no baseline year. Samsung has another relative target to “reduce its GHG emissions intensity normalised by sales (metric tonnes of CO₂ per KRW 100 million) by 50% until 2013 based on the level of 2008.” The reduction target is for production sites in Korea only, which represents almost 90% of global GHG emissions. More information. Samsung needs to set new targets to make absolute cuts to its operational GHG emissions of at least 30% by 2015 and to dramatically increase renewable electricity use by 2020.</p>	2/8
Disclose and set targets for supply chain GHG emissions and RE supply	<p>Samsung reports its Scope 3 emissions from its supply chain for 4.5 million tons of GHG emissions in 2010. This represents about 8% of global emissions and 63% of primary suppliers based on the company’s purchasing costs. In 2010, GHG emissions of 812,000 tons CO₂-e, for the year of 2009, were measured from suppliers representing 40% of purchasing costs. The increased emissions were due to a larger number of suppliers reporting and a 63% rise in purchasing. Samsung aims to increase the numbers of suppliers participating in this survey. To reduce emissions in the supply chain, Samsung has joined the Energy Mentorship programme for SMEs (Small and Medium Enterprises) of the Korea Ministry of Knowledge Economy on April 2012, designed to help suppliers improve management of energy and GHGs.</p> <p>Samsung will work with selected suppliers to build an advanced GHGs emissions inventory and identify GHGs emission reduction opportunities as a pilot project to apply for all our supply chain. More information.</p> <p>Samsung is also actively participating in a carbon footprint labelling scheme established by the Ministry of Environment in Korea as well as the carbon footprint scheme established by the Carbon Trust in the UK, to demonstrate and verify GHG emissions from a product’s life-cycle. Three products - a LED TV, a Note PC and a memory chip product – received the first Korean carbon footprint reduction label. The Galaxy SII smartphone and Galaxy Note also received a Carbon Footprint Label from the Carbon Trust. However, details of the proportion of emissions at each stage of these products lifecycles are not given. Sustainability Report 2012, p. 38</p>	3/8
Clean Electricity Plan (CEP)	<p>Samsung currently uses only small amounts of renewable energy; in 2011, the amount that it purchased was 0.2% of its total global electricity purchases, double the amount that it used in 2010. This is made up of solar power and the purchase of green electricity. Samsung is working to expand its use of renewable energy in its operations. It plans to set up and operate renewable systems with total 2.4 MW capacities by adopting small-hydro power generation systems and roof-top solar generation systems gradually by 2017.</p> <p>There was an increase in overall consumption of electricity (12%) and liquefied natural gas (LNG) (17%) due to additional production lines, however, for existing facilities in Korea 665,324 MWh of electricity and 25,916,536 Nm³ of LNG was saved in 2011 through various energy efficiency activities. Samsung needs to set a more ambitious target to increase its use of renewable energy, as a percentage of electricity used.</p>	2/8
Clean Energy Policy Advocacy	<p>Samsung supports the “development of clean energy policies by participating in several initiatives. For example, the company contributes to reducing global GHG emissions and increasing clean energy sources by participating in WBCSD (World Business Council for Sustainable Development), KBCSD (Korea Business Council for Sustainable Development), EICC (Electronic Industry for Citizenship Coalition), and the Green Growth Committee run by Korean government.”</p> <p>Samsung Electronics supports global mandatory cuts of greenhouse gas emissions of at least 50% by 2050 (from 1990 levels) and cuts by industrialised countries of at least 30% as a group by 2020. Samsung also calls for global greenhouse gas emissions to peak by 2015. More information.</p>	1/8

Greener Products		9/16
<p>Product energy efficiency</p>	<p>100% of Samsung notebook PC models on the market globally have met the latest Energy Star requirements, and 48% of notebook PC models on the market globally have exceeded the Energy Star TEC requirements for estimated annual energy consumption by 50 % or more. Samsung also reports that its TVs, monitors and printers meet the Energy Star requirements by between 89 and 98%.</p> <p>In addition, 100% of Samsung mobile phone EPS models on the market globally have met the Level V rating on the International Efficiency Marking Protocol for EPS, with 99% of EPS models having a no-load power consumption that is below 0.15W.</p> <p>Samsung is a member of the Korea e-Standby programme and the China Energy Conservation programme, but needs to show more evidence of positive advocacy for higher energy efficiency. It also needs to provide information on energy management to its customers. More information here and here. Samsung aims to improve the energy efficiency of its products by 40% by 2013 (2008 baseline).</p>	<p>4/5</p>
<p>Avoidance of hazardous substances in products</p>	<p>Samsung has achieved its target to phase-out PVC and BFRs in notebooks (except power cord and adapter), ahead of its revised commitment of January 2012, and its target to phase out PVC in internal wires of TVs by January 2011. All models of mobile phones and MP3 players are free from BFRs as of January 2010 and PVC from April 2010. All HDD models launched after April 2009 are free from PVC and BFRs. Since 1 November 2007, all new models of LCD panels are PVC-free. Other products that are partly PVC/BFR free are: all models of digital cameras and camcorders launched after April 2010 have main PWB and cases free from BFRs and internal wires free from PVC. The housings of some TVs and all monitors are BFR free.</p> <p>Samsung previously backtracked on its commitment to eliminate BFRs in new models of all products by January 2010, and although it has set new timelines for eliminating PVC and BFRs for some product groups, the commitment no longer covers all its products or all parts (for example there is no commitment to extend the PVC/BFR phase out in notebooks to power cords and adapters). Samsung no longer plans to phase out the use of BFRs and all PVC in its TVs and household appliances.</p> <p>Antimony trioxide has been phased out from new mobile phones developed from January, 2012 and mobile phones and MP3 players launched as of January 2011 are free of beryllium and its compounds (with the exception of beryllium alloys), as well as phthalates. All new models of all products will be free from beryllium from January 2013. There is an exemption for the use of beryllium in connectors and certain electronic components. Phthalates are now to be phased out in the same applications as PVC from January 2013. New models of the same list of products and applications will be free from antimony trioxide from January 2013, but with 2 exemptions.</p> <p>For more points, Samsung needs to set some new targets to eliminate these substances from its whole product portfolio, as well as antimony and compounds. More information here, here and here. Product information here.</p>	<p>2/5</p>
<p>Use of recycled plastic in products</p>	<p>Samsung is increasing the quantities of post-consumer recycled plastic that it uses: in 2011 its use of post-consumer recycled plastics across all products was approximately 2.3%, compared to 0.55% in 2010. Samsung gives some examples of several mobile phones, a refrigerator and a washing machine, as products with post-consumer plastics content.</p> <p>Samsung has almost achieved its target to increase its use of post-consumer plastics to 2.62% by 2013. A longer-term objective is needed. More information.</p>	<p>1/3</p>
<p>Product life cycle</p>	<p>Samsung states it believes in “providing reasonable product warranty and service parts availability considering product categories, sales region and legal requirement.” The company offers a 1-2 year warranty on mobile phones and TVs, and a 1-3 year warranty for monitors. Service parts are available for up to 7 years for mobile phones and monitors, and for up to 8 years for TVs.</p> <p>Samsung gives several examples of extending product life cycles, including a “battery life extension mode” for PCs, and its digital cameras have adopted the “Universal Charging Solution” (UCS), which can be used for other mobile equipment such as smart phones, camcorders etc. This UCS standard, initiated by Global System for Mobile Communications Association (GSMA), can reduce standby energy consumption and eliminates the need for discarding chargers and keeping multiple chargers for different products. More information.</p> <p>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>2/3</p>

Sustainable Operations		12/21
<p>Chemicals management and advocacy</p>	<p>Samsung supports and understands the Precautionary Principle. Samsung gains a point for its statement that “the enactment of legislation such as updated EU RoHS Directives will play an important role in addressing problems relating to the elimination of PVC and BFRs use. Through this legislation, the industry-wide replacement of PVC and BFRs could be expedited.” For more points, it needs to provide case studies demonstrating the substitution of hazardous chemicals of concern such as chlorinated and brominated substances to the Substitution Support Portal (Subsport). More information.</p> <p>Samsung also identifies future chemicals to be targeted for elimination. More information.</p> <p>SEC Standard (revision 13 0QA- 2049)</p> <p>Samsung describes some of its measures for supply chain management but there is no restricted substances list for manufacturing. More information.</p>	<p>3/5</p>
<p>Policy and practice on sustainable sourcing of fibres for paper</p>	<p>Samsung now states that it is encouraging “responsible paper sourcing to prevent deforestation in the supply chain” and that “suppliers are required to verify and report the source of pulps and virgin fibres to ensure that it is legally and responsibly sourced”.</p> <p>Samsung is working to increase the proportion of recycled fibre and FSC paper it uses. It reports that “in 2011, the company used mobile phone packaging with 50% recycled paper content. 73% of home appliances (refrigerators, washing machines, etc) manuals were made from FSC (Forest Stewardship Council) certified papers”.</p> <p>It has also introduced a range of measures to reduce paper usage, such as innovative green packaging and electronic manuals.</p> <p>Samsung scores one point for its requirement for suppliers to avoid products that are involved in deforestation or illegal logging and for its use of FSC paper and its reporting. For more points Samsung needs to set specific targets to reduce paper use and increase use of recycled and FSC fibres. More information.</p>	<p>1/3</p>
<p>Policy and practice on avoidance of conflict minerals</p>	<p>Samsung provides an update of its progress in 2011. It identified 36 smelters in use from its supplier, it has analysed its products and components for tin, tantalum/coltan and gold, and will identify which of its products potentially contain conflict minerals. It required approximately 2,000 suppliers to sign a compliance agreement that prohibits the use of conflict minerals, and required suppliers to complete the EICC/GeSI reporting template. More information.</p> <p>Samsung has joined the EICC but is not an active member of the Extractives Working Group and has not published or publicly mapped smelters or suppliers, as several companies have already done. It is active in the EICC smelter audit process and is in the process of signing a compliance agreement with its suppliers that prohibits the use of conflict minerals, but the verification for this is unclear.</p> <p>In addition it has not signed up to the Public Private Alliance, made statements on the need for a multi-stakeholder certification process, or publicly committed to implement the OECD due diligence guidelines. Samsung 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>Samsung did not participate in the OECD due diligence drafting.</p>	<p>2/5</p>
<p>Provides effective voluntary take-back where there are no EPR laws</p>	<p>Samsung offers diverse take-back programmes in 60 countries. In 2011, Samsung expanded the Samsung Recycling Direct (SRD) drop-off to 1,151 locations in 50 US states. It set up a voluntary recycling programme in India with 235 fixed drop-off locations for small mobile devices and 291 locations for larger consumer electronic products and an online information point. It established 16 drop-off locations in Canada and plans to set up a recycling system in Australia for the collection and recycling of mobile phones, TV, PCs and printers in May 2012. See Sustainability Report p.102 – 103.</p> <p>In other countries, voluntary take-back is provided for mobile phones and printer cartridges, a small part of Samsung’s product portfolio.</p> <p>A voluntary programme is also planned for China in 2012.</p> <p>For more points Samsung needs to continue to extend its voluntary take-back for all products to non-OECD countries. More information.</p> <p>Global mobile phone recycling locations here. Samsung’s recycling rates need to be provided globally.</p> <p>Recycling amounts for 2010 by region.</p> <p>Total quantities of recycled product waste are reported in its Sustainability Report 2011 (p.103).</p>	<p>6/8</p>