HP Personal Systems Group – Designing for the Environment

HP has been a leader in environmental responsibility for decades. Its efforts to innovate and design for the environment represent a long-standing commitment, and a sincere belief that what is good for the planet is good for business. As the world's largest PC company, consumers and businesses around the globe purchase millions of HP PCs each year, and the company realizes the potential impact HP, its products, customers and partners can have on the environment.

The HP Design for Environment program focuses on neutralizing this environmental impact in a variety of ways around the world. It includes three core areas of environmental responsibility: energy efficiency, materials innovation and design for recyclability, as well as the social and environmental responsibility of the supply chain.

Energy efficiency
Reduce the energy needed to manufacture and use HP products
In June 2009, HP set a new goal to save 1 billion kilowatt-hours (kWh) of electricity by 2011 through a variety of product design strategies. Today, HP offers desktop PCs, workstations, notebooks and monitors that qualify for key eco-labels around the globe, including the U.S. Environmental Protection Agency's (EPA) ENERGY STAR®, more than 50 products registered in the Electronic Products Environmental Assessment Tool (EPEAT), TCO development (Sweden), China's Energy Conservation Program, Japan's PC Green Label,, Korea's Eco-label and the Taiwan Green Mark. HP also supports the international standard EMCA 370 which outlines a common format for declaring product environmental attributes via The Eco Declaration (TED).

Energy efficiency facts:
- HP has reduced the energy consumption of its highest volume desktop and notebook PCs by 41 percent since 2005
- Today, 26 HP PC product families have configurations that will meet the new ENERGY STAR 5.0 specifications, which require 85-percent-efficient internal power supplies
- In one year, the total energy consumption saved from the use of HP Power Management Technology may be as much as 3.5 million KG of carbon dioxide, or the equivalent of taking 76,000 cars off the road for one year
- HP Smart AC Adapters feature a built-in sensor that alerts the notebook when its power rating has been reached, enabling the notebook to make power adjustments when necessary
- Ambient light sensors on certain notebook models dim panels in low light conditions to help reduce power consumption
- HP offers business customers a variety of energy-saving PC alternatives, such as thin clients and PC blades, which offer 50 to 80 percent savings in power compared to a traditional desktop
- HP Light Saver utility helps increase monitor life and save energy by allowing users to manage sleep modes and display on and off settings

Materials Innovation
Reduce the amount of materials used and develop materials that have less environmental impact and more value at end-of-life
HP designs products that use fewer materials, are easier to disassemble and allow for more effective reuse and recycling. HP engineers decrease the environmental impact of packaging by eliminating the use of heavy metals in packaging materials, maximizing the use of post-consumer recycled content and reducing the weight of materials, which also decreases fuel consumption in transport. HP has also committed to mercury-free LED displays and to eliminating all remaining uses of brominated flame retardant (BFR) and polyvinyl chloride (PVC).

Materials facts:
- Making product documentation available digitally, instead of in the box, helps minimize paper use and reduces waste
- HP uses "molded pulp" in packaging, which is composed of completely recycled content from post-consumer and industrial-paper materials
- HP offers enterprise customers the option of having select desktop and notebook products bulk packaged to save packaging materials, weight and waste
- Thin Client packaging is one-third the weight of equivalent desktop packaging
- HP has committed to using plastic pallets for consumer and commercial freight shipments, which reduce CO_2 reduction by reducing weight

Design for recyclability
Design equipment that is easier to upgrade or recycle
HP PC products are designed to make it easy for users to upgrade and extend the life of their products rather than replace them. HP also offers innovative reuse programs, and products can eventually be recycled at the end of their useful life.

Reuse and recycling facts:
- The HP Consumer Buyback and Planet Partners Recycling Program offers consumers in the United States a simple way to receive cash for their unwanted technology equipment or, if there is no value, recycle it
- Notebooks with magnesium enclosures are easier to recycle than other systems

- Some HP notebooks use 100 percent post-consumer plastic in the speaker modules
- HP workstations are 90 percent recyclable by weight and designed with tool-less chassis for easy product recycling and upgrade at end of life
- Displays with reduced polymers and plastics are easier to recycle requiring fewer material sorting processes

Supply chain social and environmental responsibility
- HP's approach to implementing social and environmental responsibility in its supply chain is based on early, frequent and proactive involvement with key suppliers to develop a partnership for improvement
- HP's commitment is to protect workers' rights, improve suppliers' working conditions and health and safety, and reduce suppliers' environmental impact. HP's long-term commitment is to achieve sustained improvement by building suppliers' social and environmental capabilities
- HP was a leader in developing the IT industry Electronic Industry Code of Conduct (EICC), a first-of-its-kind collaboration.
- In 2007, HP conducted 150 factory site audits and has conducted more than 400 audits since program inception in 2004
- HP announced in April 2008 that it was the first company to receive approval from the EPA to have the agency's SmartWay logo displayed on its consumer desktop and monitor packaging for moving to 100 percent SmartWay-compliant carriers, a first in the EPA freight industry program aimed at reducing fuel consumption, greenhouse gases and other air emissions

Key HP milestones in designing for the environment:

1950:
- Global Citizenship becomes a core company objective

1973:
- Establishes environmental policy to continually monitor its operations to reduce pollution

1987:
- Launches product recycling program

1988:
- Hazardous Waste Minimization Council is formed to develop a corporate-wide strategy.

1991:
- First HP environmental report published

1992:
- Design for Environment product program launched
- HP becomes one of the first ENERGY STAR partners

1994:
- Publishes its first annual environmental report
- Packaging management system is created, including guidelines to decrease the environmental impact of packaging

1997:
- Opens its first recycling facility in Roseville, Calif. becoming the only major computer manufacturer to operate its own recycling facility

2001:
- Opens a second U.S. recycling facility in Nashville, Tenn.

2002:
- Publishes its first combined Social and Environmental Responsibility Report
- Supply Chain Code of Conduct released

2004:
- Ranks 8th overall in the Accountability Rating, the first global index that evaluates how well the world's 100 largest companies account for their impacts on society and the environment; HP is the only U.S. company ranked in the top 10

2005:
- Begins a free hardware recycling service in the European Union (EU) in advance of the EU Waste Electrical and Electronic Equipment (WEEE) Directive
- Ships its first fully EU RoHS (Restriction of Hazardous Substances) compliant products

2006:
- PVC eliminated in new consumer packaging designs
- International climate change initiative launched with World Wildlife Fund
- First major computer manufacturer to support the 80Plus Program, offering 80 percent efficient power supplies on business desktop PCs
- Packaging innovations for consumer notebooks reduced the package size by 25 percent

2007:
- First in the industry to introduce PCs to meet the more stringent hardware requirements of ENERGY STAR 4.0 with the HP Compaq dc5750 Business Desktop PC, four months prior to EPA effective date
- Introduced first EPEAT Gold product, the HP Compaq rp5700 Business Desktop PC, an easy-to-recycle PC that features a five-year lifecycle, 80 percent efficient power supply and components made from recycled plastics.
- New consumer PC chassis design uses significantly less plastic and steel – saving enough metal over the next 18 months to build an Eiffel Tower
- FOSE awards the HP Compaq dc5750 Business Desktop "Best in Show" award for PC category for energy efficiency
- Introduced the HP Compaq dc7800 Ultra-Slim Business Desktop PC, which uses up to 39 percent less power on average than previous generation products with energy-efficient features such as 85 percent efficient power supplies, ENERGY STAR configurations and Verdiem SURVEYOR remote power management software
- PVC is removed from all HP packaging designs
- Reached company goal of recycling 1 billion pounds of computer hardware and print supplies

2008:
- Introduces industry's first configurable ENERGY STAR 4.0 consumer desktop, the HP Pavilion a6360t , and the broadest selection of EPEAT Gold listed desktops and notebooks, at 10 products total
- First company to carry EPA SmartWay logo on product packaging

2009:
- Introduced Consumer Buyback and Planet Partners Recycling Program
- Exceeds goal to reduce energy consumption of HP's volume desktop and notebook portfolio below 2005 levels by 16 percent

ENERGY STAR is a registered mark owned by the U.S. government.