

How to Buy Better Computers

Going Beyond EPEAT

Electronics: A Growing Environmental and Labor Crisis

While electronics have become essential to facilitating many improvements in our daily lives, from life-saving medical technology to global communications, the electronics industry also has serious impacts on the health of workers, communities, and the environment all around the world. Electronics are the fastest growing part of the waste stream in the United States. Some key areas of concern include:

Toxics: Thousands of chemicals are used in the production of electronics, and many pose hazards to workers, communities and consumers throughout the product life-cycle. They account for approximately 70% of the heavy metals found in solid waste landfills and contain hazardous materials such as polyvinyl chloride (PVC or vinyl), brominated flame retardants, lead, and mercury. These toxicants are released during the production, use and disposal of electronic products, with the greatest impact at end-of-life.

Harmful chemicals released from incinerators and leached from landfills contaminate air and groundwater. The burning of plastics at the waste stage releases dioxins and furans, known developmental and reproductive toxins which persist in the environment and concentrate up the food-chain.

Labor conditions: The majority of electronic waste that does get diverted from US landfills and incinerators—upwards of 80%—ends up exported to developing countries, dismantled in US prisons or recycled under poor conditions in the US. Those who labor in global high-tech factories or recycling operations experience poor working conditions, little labor protection and virtually no health and safety protection.

Institutional Purchasers Can Change the Industry

You have the power to change the industry. Large institutional consumers of electronics, such as health care facilities; colleges and universities; and local, state and federal government have the ability to leverage purchasing power to drive higher environmental, health and safety, and labor standards throughout the electronics industry. Currently, there is little incentive for electronics manufacturers to consider the labor, health and environmental concerns in design, production or end-of-life management of their products. By integrating social and environmental values into your purchasing calculus, you can lead the way in setting new standards for the industry.

Too Costly to Ignore

There are real dollar costs to not accounting for the life-cycle impacts of electronics in purchasing decisions. When you do not consider the Total Cost of Ownership in electronics purchasing decisions, you are likely to be stuck with the “hidden costs” associated with disposal of these prod-



ucts at the end of their useful life. By integrating end-of-life management into your cost analysis, Original Equipment Manufacturers (OEMs) are encouraged to institute take-back programs that could save you money. Takeback programs in turn, create an incentive to design for recycling, increase the use of recycled content, and decrease the use of toxic materials. Without these incentives, the purchaser bears responsibility for managing electronic waste; and the much larger costs of degraded public health and the environment are borne by taxpayers, local governments and impacted communities.

Institutions that purchase electronic and IT equipment in large quantities may be able to minimize overall costs by including end-of-life costs in the overall bid. In addition, institutions using OEM takeback programs that are well audited will not only help to protect people and the environment, but also to guarantee data-security and complete data destruction, which can protect against liability.

New Tools Make It Easier For Purchasers: EPEAT and Beyond

Luckily, heightened awareness about the growing problem of electronics on health and the environment has resulted in the development of new tools to help institutional purchasers easily integrate these concerns into contracts. The US EPA initiated a process to develop the Electronic Product Environmental Assessment Tool (EPEAT). Launched in July 2006, EPEAT is a tool to help institutional purchasers evaluate and select laptops, desktop computers, and monitors according to a list of preferred environmental attributes. While EPEAT is a step in the right direction, it does not go far enough on its own.

Many non-governmental organizations, such as the Computer TakeBack Campaign (CTBC), Health Care Without Harm (HCWH) and Hospitals for a Healthy Environment (H2E) also provide purchasing resources. These groups have created a short list of priority criteria (Beyond EPEAT) to use with the EPEAT list to fill in some of the critical gaps.

USING THE EPEAT LIST AND BEYOND EPEAT CRITERIA TO SELECT EQUIPMENT

Through the EPEAT Program (Electronic Product Environmental Assessment Tool) manufacturers can register their products at the bronze, silver, or gold level. EPEAT has mandatory criteria, which must be met for a product to be registered bronze, and optional criteria that if achieved can yield silver or gold status.

While EPEAT is a significant first step towards responsible electronics procurement, it has some key limitations—particularly the failure to address key labor and environmental justice concerns in manufacturing and end-of-life management. HCWH, H2E and CTBC have developed additional guidelines beyond the EPEAT criteria to promote higher environmental and labor standards to fill in some of EPEAT's key gaps. These supplemental criteria address occupational health and safety, labor standards, end-of-life management, packaging, and hazardous materials.

We encourage institutional purchasers to specify EPEAT along with our computer purchasing criteria to promote greater overall environmental and social responsibility.

Immediately below are highlights of the EPEAT criteria in each of the 8 categories, with descriptions of how the "Purchasing Guidelines for Environmentally Preferable Computers" (Beyond EPEAT) fill some of the critical gaps in EPEAT. It is easy to specify EPEAT plus the prioritized list of Beyond EPEAT questions.

Environmentally Sensitive Materials

EPEAT Products:

Products must comply with the European Union Restriction of the use of certain Hazard Substances (RoHS) Directive. RoHS places restrictions on lead, mercury, hexavalent chromium, cadmium, polybrominated biphenyls (PBB) and some polybrominated diphenyl ethers (PBDE). Optional criteria include restrictions on materials in lighting and batteries.

Beyond EPEAT Criteria:

Ask for products that do not contain halogenated organic flame retardants where possible, particularly brominated flame retardants; do not contain polyvinyl chloride (PVC) in all applications; and do not use mercury in liquid crystal display (LCD) screens.

Materials Selection

EPEAT Products:

Manufacturers are required to disclose recycled plastic content, bio-based material content, and product weight. Optional criteria include the percentage of material made from recycled plastics and renewable/bio-based material.

Design for End-of-Life

EPEAT Products:

EPEAT requires that products are designed for recycling by shredding, have identification of parts requiring special handling, and are designed for ease of disassembly. Optional criteria include minimum reusable/recyclable content and disassembly options.



Product Longevity

EPEAT Products:

Products must be upgradeable with common tools and have an additional three-year warranty plan available. Optional criteria are a modular design and easy availability of replacement parts.

Energy Use

EPEAT Products:

Products are required to meet applicable existing ENERGY STAR® standards. Optional criteria include accessories that allow use of renewable energy.

End-of-Life Management

EPEAT Products:

EPEAT requires the provision of a product takeback program, as well as a recycling program for rechargeable batteries. Auditing of recyclers is optional. The takeback program must meet the EPA's Plug-In to e-Cycling guidelines; however there are no minimum requirements for what is included in a takeback program.

Beyond EPEAT Criteria:

Recycling programs must have high environmental, health, safety, and labor standards. Ask for recyclers that do not use incarcerated labor, do not send electronics to solid waste landfills or incinerators, and do not export electronics to developing countries for disposal.

Packaging

EPEAT Products:

Requirements for packaging include that non-reusable plastics must be separable and recycled content is declared. Optional EPEAT criteria include having certain levels of recycled content and offering of a product takeback program for packaging.

Beyond EPEAT Criteria:

Ask for products that have a takeback program for packaging when possible. Ask that packaging be made from easily recyclable materials such as molded paper and cardboard, and that whenever possible packaging materials are reusable or recyclable. Polystyrene should be eliminated from packaging.

Corporate Performance

EPEAT Products:

EPEAT requires that corporate policy is consistent with ISO 14001 and that a self-certified environmental management system is in place. Optional criteria include third-party certification.

Labor Standards

EPEAT Products:

EPEAT has no labor standards specified.

Beyond EPEAT Criteria:

Purchase products from manufacturers with suppliers that meet key international labor standards, including freedom of association, no forced labor, no child labor, protection from discrimination, and a living wage. One way to ensure that these standards are achieved is to purchase and recycle electronics at SA8000 certified facilities, whenever possible.

Occupational Health and Safety

EPEAT Products:

EPEAT has no occupational health and safety standards specified.

Beyond EPEAT Criteria:

Manufacturing and recycling workers are often exposed to hazardous working conditions. Electronics products that meet the guidelines must be made and recycled at facilities with high health and safety standards. Ask for products that are produced in facilities that demonstrate compliance to international standards, whenever possible.



RESOURCES

View the EPEAT Guidelines at www.epeat.net/Docs/Summary%20of%20EPEAT%20Criteria.pdf.

The Purchasing Guidelines for Environmentally Preferable Computers (Beyond EPEAT) are available at www.noharm.org/us/electronics/issue or www.computertakeback.com.

For more information on purchasing environmentally preferable and more socially responsible electronics, please visit our websites.

Prepared by Health Care Without Harm, Hospitals for a Healthy Environment & the Computer TakeBack Campaign



Health Care Without Harm
1901 N Moore Street
Suite 509
Arlington, VA 22209
Telephone: 703-243-0056
Fax: 703-243-4008
www.noharm.org
info@hcwh.org



Hospitals for a Healthy Environment
PO Box 376
Lyme, NH 03768
Telephone: 603-795-9966
Fax: 866-379-8705
www.h2e-online.org
H2E@H2E-online.org



Computer TakeBack Campaign
760 North First Street
San Jose, CA 95112
Telephone: 415-206-9595
www.computertakeback.com
info@etakeback.org

The following organizations within CTBC contributed to the development of these guidelines:
Basel Action Network • Center for Environmental Health • Clean Production Action
Green Purchasing Institute • Silicon Valley Toxics Coalition • Texas Campaign for the Environment