

Purchasing Environmentally Preferable Computers

Greening the Government
Conference - Philadelphia
June 5, 2003

Marie Steinwachs
Product Stewardship Institute



Why Pick on Computers?

- Volume - In 2000, there were an estimated 160 million PCs in use, with annual sales of 46 million.
- Rapid obsolescence - 34 million become obsolete annually.
- Energy - Computers and office equipment in the U.S. consumes 74 billion kWh of electricity per year.



Why Pick on Computers?

- CRTs and Circuit boards fail TCLP
- Mercury – LCD displays and flat panel screens contain 0-5mg of mercury
- Lead – CRT monitors, lead solder
- Brominated flame retardants –PBB, PeBDE (EU will restrict OBDE and DBDE)
- Cadmium – batteries, CRT, plastic stabilizer



What is an Environmentally Preferable Computer?

1. Energy Efficient
2. Reduced Toxic Constituents
3. Mfg. w/ Reduced Toxic Materials
4. Recycled Content
5. Designed for Recycling
6. Upgradeable
7. Long Life
8. Reduced Packaging
9. Includes Take-back Provision



Goals of Environmentally Preferable Procurement

- **Environment:** Encourage better design through government purchasing power.
- **Economic:** Reduced liability, lower operating costs, extended lives, reduced disposal costs.



Barriers to Implementing EPP for Computers in Agencies

- Long list of desirable attributes
- Lack of product information
- Complexity of environmental issues
 - Difficult to Establish Priorities
 - Trade-Offs



PSI Recommended EPP Strategies for Computers

1. Purchase Energy Star Rated Products
2. Require Eco-Label Certification
3. Include Take-Back in Contract
4. Partner with Environmentally Responsible Vendors



Design Criteria Checklist

	Energy Star	Eco-Labels	Take-Back	Corp. Env. Responsibility
Energy Efficient	X	X		X
Reduced Toxic Constituents		X	X	X
Reduced Toxics in Mfg.		X		X
Recycled Content		X		X
Designed for Recycling		X	X	X
Upgradeable		X		X
Long Life		X	X	X
Reduced Packaging		X		X
Take-Back Provisions			X	X



Purchase Energy Star Rated Products



Purchase only computers that meet or exceed Energy Star specifications www.energystar.gov, and are shipped with power management features activated.



Energy Star

Advantage

- Power management features could save 23- 40 kWh per year if used on all office equipment.
- Reducing electricity consumption reduces burning of fossil fuels.
- Saves \$7-\$52 per year per unit on utilities.
- Easy to implement and widely accepted.
- Products are available.



Energy Star

Disadvantage

- Energy Star rating might not present a true measure of energy efficiency – there are significant differences in energy use.

Strategy

- Request vendor disclosure and compare energy consumption for product in Active, Sleep, Deep Sleep, and Off modes.



Require Eco-Label Certification

Eco-labels evaluate products based on multiple environmental criteria:

- Reduced toxicity of materials (ozone, heavy metals, BFRs)
- Product longevity
- Ergonomics
- Recyclable design
- Take-back program
- Emissions reduction (electromagnetic fields)



Eco-Label Certification

Eco-Labels:

Blue Angel
(Germany)
EU Flower (European
Union)
Nordic Swan
(Finland, Iceland,
Norway, Denmark,
Sweden)
TCO Development

Eco-Declarations:

ECMA - European
Computer Mfg.
Association
NITO - Nordic
Information
Technology
Organization



Eco-Label Certification

Advantages

- Reduces need for purchaser to evaluate products
- Eco-labels update criteria regularly
- Sends unified message to vendors

Disadvantages

- Not widely accepted/used in USA
- Eco-labels are not consistent in standards



Eco-Label Certification

Strategy (first step)

- Require that vendors *identify* those products that have received eco-label certification by third party, or eco-declaration in accordance with NITO or ECMA TR/70 guidelines.
 - does not require eco-labels so purchasing policy does not have to be altered
 - puts out strong message to vendors



Eco-Label Certification

Strategy (next step when there is enough selection)

- Require that vendors bids include only products with eco-label certification or eco-declaration in accordance with NITO or ECMA TR/70 guidelines.



Include Take-Back in Contract

Advantages

- Easy to implement, services are already offered
- Reduces management costs and liability for government agency
- Manufacturer has more incentive to design for the environment

Disadvantage

- Not all take-back services are equal – concerns about EOL management



Take-Back in Contract

Ensure vendor satisfies your requests:

- Assurances that management method demonstrates environmental and social responsibility and is in compliance with applicable laws
- Information on how and where materials will be recycled
- Process used for environmental evaluation of recycling and disposal contractors
- Information on cost, liability, and security



Take-Back in Contract

Strategies

First Step: Require that vendors identify services they provide for end-of-life management of computers.

- Second Step: Require that vendors' bids include only products from manufacturers that offer take-back services.



Partner with Environmentally Responsible Vendors

- Environmental Management Systems
- ISO 14001 certified
- Written, management- approved, company Environmental Policy
- Regularly published Environmental Report detailing progress
- Procurement program that assesses environmental attributes



Environmentally Responsible Vendors

Environmentally preferable products can only be produced by corporations with environmental responsibility as a priority!

Advantages

- Laggards are easily identified

Disadvantages

- Not all products produced by environmentally responsible corporations will be environmentally preferable



Environmentally Responsible Vendors

- First step – ask vendors to provide this information.
- Second step – require vendors to provide this information.



Next Steps for EPP Program

- Network with Procurement Officials
- Communicate with Suppliers
- Obtain Information Updates
 - Manufacturers' websites
 - Eco-label organizations
 - Non-governmental organizations



Federal Government EPP Programs

- EPA Environmentally Preferable Purchasing
- EPA Database for Environmental Info for Products and Services
- EPA A Buyers' Guide to Purchasing Energy Star Compliant Office Equip.



State and Local Governments EPP Programs for Computers

- California
- Connecticut
- Massachusetts
- Minnesota
- North Carolina
- Texas
- Virginia
- Western States Contracting Alliance
- Ramsey Co and St. Paul, MN
- Seattle, WA
- MN Solid Waste Coordinating Board
- Denver, CO



Product Stewardship Institute
University of Massachusetts, Lowell
Pinanski Hall, Room 303
One University Avenue
Lowell, MA 01854
(978) 934-4855
(978) 934-3050 (fax)
www.ProductStewardship.US/

