



Greening IT Procurement

Tools and First Steps

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'Greening IT' Issues

Worst Case

- ▶ Vendor information self-interested
- ▶ Manufacturer DfE efforts not guided by purchasers/users
- ▶ NGOs – aspects addressed partial - depend on organizational agenda
- ▶ Purchasers – lack competence, resources to evaluate issues in depth



Purchaser Needs

- ▶ Availability of multiple products from multiple suppliers
- ▶ Comparable features/performance
- ▶ Cost-comparable pricing
- ▶ Specific environmental performance criteria
- ▶ Verification/validation of claims
- ▶ Measurable benefits
- ▶ Ability to measure environmental improvement



What's a buyer to do?

- Focus on products rather than promises
- Use existing, credible tools for assessment
- Match your efforts with others' to increase impact
- Increase stringency of requirements over time



Tools

- EPEAT purchasing tool for PCs/Monitors
www.epeat.net
- ENERGY STAR[®] (computer/office equipment)
http://energystar.gov/index.cfm?fuseaction=find_a_product.showProductCategory&pcw_code=OEF
- EcoLogo (printers, copiers)
www.ecologo.org/en/certifiedgreenproducts
- BAN e-stewards Initiative (recycling)
<http://www.ban.org/pledge1.html>



What is EPEAT™?

Electronic Product Environmental Assessment Tool

An environmental procurement tool designed to help IT purchasers address environmental concerns in their purchasing process for desktop computers, laptops, integrated systems and monitors.





EPEAT™ Development

- ▶ Developed in a 3-year multi-stakeholder process
- ▶ Purchaser difficulty with “greener computer” sourcing
- ▶ Extensive engagement of: Private/public purchasers, Manufacturers, Environmental advocates, Recyclers
- ▶ Consensus achieved on environmental criteria and the EPEAT™ system
- ▶ EPEAT™ developed and guided by *all stakeholders together*



The EPEAT™ System

- ▶ Standard comprised of 51 environmental performance criteria (IEEE Standard 1680 for the Environmental Assessment of Personal Computer Products)
- ▶ System for identifying and verifying products which meet these criteria
- ▶ Environmental Benefits Calculator



EPEAT™ Environmental Performance Categories

- ▶ Environmentally Sensitive Materials
- ▶ Materials Selection
- ▶ Design for End of Life
- ▶ Product Longevity/Life Cycle Extension
- ▶ Energy Conservation
- ▶ End of Life Management
- ▶ Corporate Performance
- ▶ Packaging



Sample Criteria

4.1 Reduction/elimination of environmentally sensitive materials (Number of products meeting each optional criterion)

4.1.1.1 Compliance with provisions of European RoHS Directive

4.1.2.1 Elimination of intentionally added cadmium (386)

4.1.3.1 Reporting on amount of mercury used in light sources

4.1.3.2 Low threshold for amount of mercury used in light sources (387)

4.1.3.3 Elimination of intentionally added mercury used in light sources (71)

4.1.4.1 Elimination of intentionally added lead in certain applications (122)

4.1.5.1 Elimination of intentionally added hexavalent chromium (433)

4.1.6.1 Elimination of intentionally added SCCP flame retardants and plasticizers

4.1.6.2 Large plastic parts free of certain flame retardants classified under European Directive 67/548/EEC (538)

4.1.7.1 Batteries free of lead, cadmium and mercury (243)

4.1.8.1 Large plastic parts free of polyvinyl chloride (547)

As of 4/09/2008. (Total products in registry = 559) For updated figures see www.epeat.net.



EPEAT™ Tiers



EPEAT Bronze– Meets all 23 mandatory criteria






EPEAT Silver– All mandatory criteria and at least 50% optional criteria



EPEAT Gold– All mandatory criteria and at least 75% optional criteria



EPEAT Registered Products

EPEAT Registered Products Search Tool				
Product	 BRONZE	 SILVER	 GOLD	Total
Desktops	<u>4</u>	<u>57</u>	<u>39</u>	<u>100</u>
Integrated Systems	0	<u>11</u>	0	<u>11</u>
Monitors	<u>19</u>	<u>280</u>	<u>12</u>	<u>311</u>
Notebooks	<u>4</u>	<u>127</u>	<u>13</u>	<u>144</u>
Totals	27	475	64	566

As of 05/05/2008. See www.epeat.net for current list.



EPEAT™ Product Verification Process

Similar to ENERGY STAR®

- **Companies:**

- Sign legal agreement to participate
- Register products as compliant
- Must have specific verification evidence for all criteria

- **Product declarations routinely verified:**

- Random timing, no advance notice
- Conformance decided by independent panel
- Results published, transparent



Participating Manufacturers

- Apple
- CIARA-TECH
- CTL
- Dell
- Enano Computers
- Fujitsu
- GETAC
- Hewlett Packard
- Hyundai IT America
- Lenovo
- LG Electronics
- MDG Computers
- MPC Computers
- NCS Technologies
- NEC Display Solutions
- Northern Micro
- One Laptop per Child
- Panasonic
- Philips Electronics
- Prosys Tech
- Samsung
- Sony Electronics
- Toshiba
- Transource
- Viewsonic
- Zonbu

As of 05/05/2008 See www.epeat.net for up to date list.



Purchasers Using EPEAT

- ▶ **US Federal Government** (approx \$60 billion in contracts citing EPEAT) NASA, DOD, EPA, DHS, DOE, DOI, GSA. **Canadian Government** Master Agreement, **New Zealand** Environmental Ministry
- ▶ **Private Sector:** Kaiser Permanente, Premier Inc, McKesson, HDR, Marriott International, Deloitte
- ▶ **Cities** San Francisco, Phoenix, San Jose, Vancouver, BC, Seattle, Portland OR
- ▶ **States/Provinces** including: New York, Oregon, Washington, Wisconsin, Massachusetts, California, Nova Scotia, Ontario Lottery



How Can I Use EPEAT?

- ▶ Ask supplier to provide a list of EPEAT-registered products already available on contract
- ▶ Prefer/purchase EPEAT products
- ▶ Ask supplier to provide identification of all EPEAT-registered products in catalog/web ordering portals
- ▶ Require reporting on sales by product and tier
- ▶ Communicate about EPEAT to end users
- ▶ Identify only EPEAT-registered products in standardization or contract renewal



Successful Teamwork

- ▶ Involve IT staff early – IT can take the lead
- ▶ Collaborative effort between Purchasing, Waste Management, IT, Facilities
- ▶ Work with CIO or other IT leaders to incorporate EPEAT in state IT hardware standards
- ▶ Involve vendor reps to get up-to-date information on suppliers' EPEAT efforts
- ▶ Work through existing Green Team or other environmental committee



Electronics Environmental Benefits Calculator

- ▶ Developed by the University of Tennessee Clean Products/Clean Technologies Center
- ▶ Measures benefit of specific purchases (by amounts purchased and registration levels) compared with conventional models
- ▶ <http://eerc.ra.utk.edu/ccpct/eebc/eebc.html>



EPEAT Benefits Snapshot

For every 1,000 EPEAT™ Silver registered desktops purchased & discarded units recycled:

- ↓ Energy use by 1.2 million kWh
= electricity to power 101 households annually
- ↓ Greenhouse gas emissions by 90 MTCE
= removing 71 passenger cars from the road per year
- ↓ Hazardous waste by 17 metric tons
- ↓ Toxic materials, incl. lead & mercury, by 340 pounds
- ↓ Municipal solid wastes by 34.7 metric tons
= waste generated by 18 households annually



Growth of EPEAT

- ▶ At launch (July 2006):
 - ▶ 3 manufacturers
 - ▶ 60 registered products
 - ▶ No Gold products

- ▶ Today (May 2008):
 - ▶ 26 manufacturers
 - ▶ 566 products (maps to ~2000 SKUs)
 - ▶ 64 Gold-registered products

- ▶ 2007 sales worldwide: ~ 113,000,000



Standards Expansion

Development of related IEEE standards

- Printers/Imaging devices
- TVs
- Servers
- Mobile devices – cell phones, PDAs

Stakeholder standards development

Open to all purchasers, environmental advocates, manufacturers, recyclers, researchers



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