Green Purchasing of Office Equipment & Recycling Services

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Presentation Overview

- SEC Program Requirements
  - Purchasing
  - End-of-Life Management
- Purchasing tools & resources
  - EPEAT (Electronic Product Environmental Assessment Tool)
  - Electronics Recycler Certification Programs: R2, e-Stewards, or R2/RIOS

Program Requirements
Procurement

- Modify procurement practices to require/give preference to "green" equipment – defined by EPEAT® standard

- Ensure 95% of desktops, laptops, monitors purchased are EPEAT registered
  - In 2014, also printers, copiers, & multifunction devices

Program Requirements
End-of-Life Management

- Establish policy/directive to require environmentally sound management at EOL of office electronic equipment

- Use recycler that has earned 3rd party certification:
    - R2, R2/RIOS, or e-Stewards

Overview of EPEAT

Global registry for identification of "green" electronic products

Currently: - Computers/Displays
- Imaging Equipment (printers, copiers, MFD)
- Televisions

Next up: Mobile phones (mid-2014)
Servers (late 2015)

Why Was EPEAT Created?

- Complexity of the product set – purchasers' struggle with definition of what constituted "preferable" and evaluating bids against specifications

- Supplier community's struggle with proliferation of purchasing specs, information requests

- Public Private Partnership – interest in voluntary programs, avoiding the inflexibility of regulatory approach

- Desire for market drivers to set clear direction, rewards

Components of EPEAT

1) Voluntary environmental performance standards
   – Developed within independent Standards Development Organizations by diverse stakeholders
     • Purchasers, manufacturers, environmental groups, suppliers, government regulatory agencies
   – Addresses multiple environmental attributes, including ENERGY STAR

2) System for identifying products
   – Searchable product registry (www.epeat.net)
   – Three-tier rating system: bronze, silver, & gold

3) Verification process to ensure conformance

EPEAT Benefits

For Purchasers

A single, credible environmental performance rating to efficiently address lifecycle environmental issues in purchasing specifications across electronic product categories

For Industry

Consistent environmental performance criteria for design of products and related services across multiple geographies. Opportunity for market recognition for design and service strategies that reduce products' environmental impact.

What Does EPEAT Cover?

EPEAT's environmental criteria cover the complete product lifecycle from design to recycling.

Product longevity/life extension

End-of-life management

Design for end of life

Material selection

Packaging

Reduction/elimination of environmentally sensitive materials

Corporate performance

Consumables

Indoor air quality

Energy conservation

How Are Products Rated?

- Products must meet all **required** criteria to qualify for EPEAT

- Products are rated Bronze, Silver or Gold based on how many **optional** criteria they meet

Green (< 50%)   Greener (50-75%)   Greenest **(> 75%)**

Summary of Criteria in IEEE 1680 Standards

	Computers/Displays (2009)		Imaging Equipment (2012)		Televisions (2012)	
	Required	Optional	Required	Optional	Required	Optional
Environmentally Sensitive Materials	3	8	4	7	3	9
Materials Selection	3	3	4	3	3	3
Design for End of Life	6	5	7	2	5	6
Product Longevity/ Lifecycle Extension	2	2	2	1	3	0
Energy Conservation	1	3	2	4	1	4
End of Life Management	2	1	2	2	2	2
Corporate Performance	3	2	2	3	2	3
Packaging	3	4	5	2	5	2
Consumables	-	-	4	2	-	-
Indoor Air Quality	-	-	1	0	-	-
Total # Criteria	23 Required	28 Optional	33 Required	26 Optional	24 Required	29 Optional
	51 Total		59 Total		53 Total	

Computer & Display Registry (12/3/13)

EPEAT REGISTRY SEARCH OPTIONS

Quick Search

Computers & Displays ▾

United States ▾

Search by Manufacturer/Country

Full Search

	BRONZE	SILVER	GOLD	Total
Desktops	4	58	132	194
Displays	1	356	213	570
Notebooks	40	309	362	711
Integrated Desktop Computers	0	24	63	87
Workstation Desktops	0	4	36	40
Thin Clients	0	22	6	28
Tablet Notebooks	1	0	0	1
Totals	46	773	812	1631

Product Search

Product Search

* PRODUCT TYPE
- [ ] DESKTOPS
- [ ] INTEGRATED DESKTOP COMPUTERS
- [ ] TABLET NOTEBOOKS
- [ ] WORKSTATION DESKTOPS
- [ ] DISPLAYS
- [ ] NOTEBOOKS
- [ ] THIN CLIENTS
- [ ] WORKSTATION NOTEBOOKS

PRODUCT

* MANUFACTURER

All companies
Ace Computers
Acer Inc.
Action S.A.

⚠ NOTE:
To select more than one manufacturer, hold down the "Ctrl" key and click the manufacturer names

* COUNTRY/REGION

Select a country
United States
Australia
Austria

⚠ NOTE:
To select more than one country/region, hold down the "Ctrl" key and click the countries/regions

* RATING
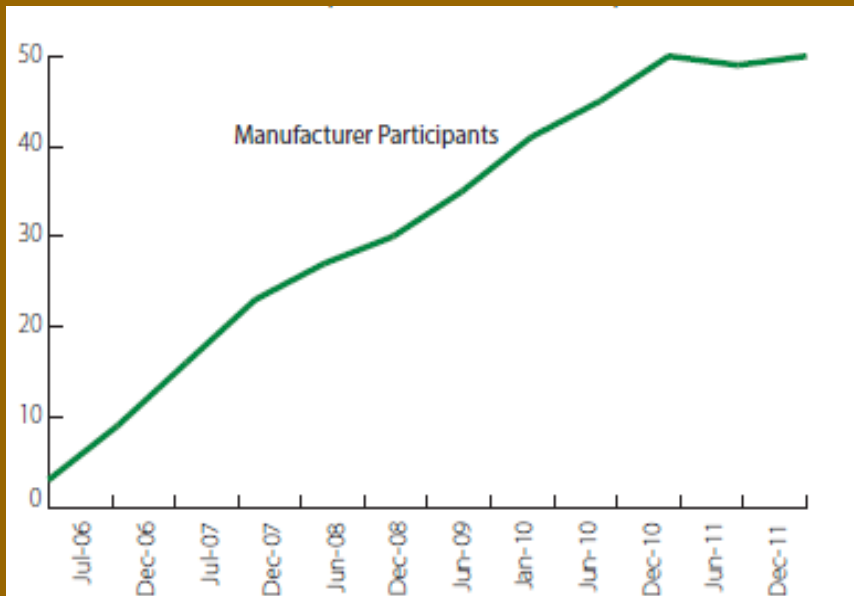- [x] ALL RATINGS
- [x] BRONZE
- [x] SILVER
- [x] GOLD

EPEAT Product Comparison

Back to Search Results

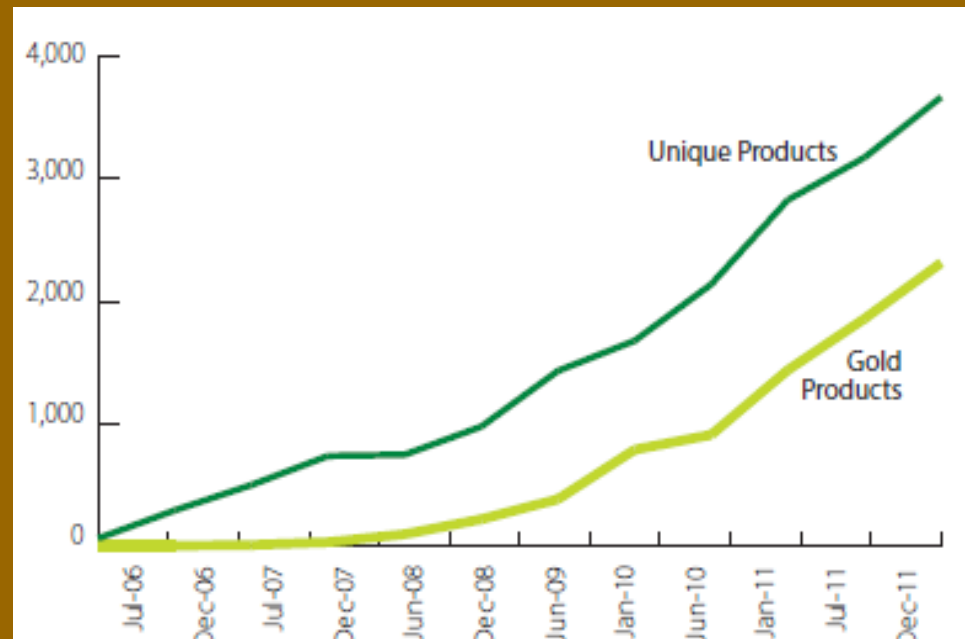| Criterion	Brand: HP Compaq Model: 8000f Elite Ultra Slim Desktop Business PC Company: Hewlett-Packard Country: Hungary Rating: Gold Points: 19/24	Brand: Lenovo Model: ThinkCentre M90p Eco Ultra Small Company: Lenovo Country: Hungary Rating: Gold Points: 19/24
4.1.2.1 Elimination of intentionally added cadmium	YES	YES
4.1.5.1 Elimination of intentionally added hexavalent chromium	YES	YES
4.1.6.2 Large plastic parts free of certain flame retardants classified under European Council Directive 67/548/EEC	YES	YES
4.1.7.1 Batteries free of lead, cadmium and mercury	YES	YES
4.1.8.1 Large plastic parts free of PVC	YES	YES
4.2.1.2 Minimum content of postconsumer recycled plastic	YES	YES
4.2.1.3 Higher content of postconsumer recycled plastic	NO	YES
4.2.2.2 Minimum content of renewable/bio-based plastic material	NO	NO
4.3.1.6 Reduced number of plastic material types	YES	YES
4.3.1.7 Molded/glued in metal eliminated or removable	YES	YES
4.3.1.9 Minimum 90 percent reusable/recyclable	YES	YES

EPEAT Registry
Computers/Displays 2006-2011

3 to 50+ Manufacturers

Products registered in 42 Countries

60 to 3,000+ product registrations

Worldwide Availability of EPEAT Products

US	Canada		
Australia	Estonia	Latvia	Portugal
Austria	**France**	Lithuania	Romania
Belgium	Finland	Liechtenstein	**Singapore**
Brazil	Germany	Luxembourg	Slovakia
Bulgaria	Greece	Malta	Slovenia
China	Hungary	Mexico	Spain
Costa Rica	Iceland	Netherlands	Sweden
Cypress	Ireland	**New Zealand**	Switzerland
Czech Republic	Italy	Norway	Taiwan Region of PRC
Denmark	Japan	**Poland**	**United Kingdom**

Bold = countries where national government (in full or in part) uses EPEAT as a purchasing specification

Imaging Equipment

- Registry opened February 2013
  - With 7 manufacturers, 171 registered products in US/Canada
  - Now 13 manufacturers, almost 700 products registered in US, Canada, Australia

Televisions

- Registry opened April 2013
  - 2 manufacturers, over 120 products

Ace	Ciara-Tech	Epson	Ilhaservice Servicos de Informatica	Lexmark, Intl.	Northern Micro Inc.	SIA ATEA	Xerox
Acer	Corporativo Lanix, S.A.	Fujitsu Ltd.	Inida	LG Electronics, Inc. ***	NTT System, S.A.	Sony Electronics, Inc.	Xplore Technologies Corp.
Action S.A.	CTL Corp.	Gammatech Computer Corp	Integrit	Login Informatica	Oracle America, Inc.	TEKNO SERVICE, S.L.	
Apple, Inc.	Daten Tecnologia, Ltda.	GETAC	Itautec S.A.	M&A Technology, Inc.	Panasonic	THEIS-Computer GmBH	
Arquimedes Automacao	Dell, Inc.	Hewlett-Packard	Komparsa UAB	Manage Your IT, Ltd.	Positivo Informatica, S.A.	Toshiba	
ASUSTek	Digital Computer	Howard Tech. Solutions	Konica Minolta	MMD – Monitors & Displays	Ricoh Americas Corp.	TPV Technology, Ltd.	
BenQ	Eastman Kodak	Hyundai IT America Corp.	Kyocera	NCS Technologies	Samsung Electronics ***	Transource	
Canon	EIZO Corp.	Iiyama Corp.	Lenovo	NEC Display Solutions, Inc.	Semp Toshiba Informatica Ltda.	ViewSonic Corp.	***TVs

Model Purchasing Language

- All [PRODUCTS] provided under this contract are required to have achieved Bronze registration or higher in the EPEAT system in [COUNTRY]. EPEAT is a procurement tool designed to help large volume purchasers evaluate, compare, and select electronic products based upon their environmental attributes as specified in the consensus-based [STANDARD].

- [Purchaser] will prefer products that have achieved EPEAT Silver or EPEAT Gold registration. The EPEAT registration criteria and a database of all registered products are provided at http://www.epeat.net.

Supplier EPEAT Reporting

Suppliers are required to provide [quarterly/semiannual/annual] reporting on the number of EPEAT registered products purchased under this contract. For each piece of equipment sold, EPEAT Registration Status (i.e. Bronze, Silver, Gold or Unregistered) must be provided.

The information must be reported in aggregate in a matrix providing the following data:

Product type	EPEAT Gold	EPEAT Silver	EPEAT Bronze	Unrated
Desktops				
Notebooks				
Integrated Systems				
Workstations				
Displays				
Thin client				

EPEAT is Different from ENERGY STAR®

- ENERGY STAR covers energy efficiency

- EPEAT's environmental criteria cover the **complete product lifecycle**

- EPEAT-registered products meet anywhere from **21 to 50 other criteria** in addition to the latest Energy Star standard

Responsibly Managing EOL Equipment

- Electronics recycler certification programs:
  - R2   www.r2solutions.org
  - e-Stewards   www.e-stewards.org
  - R2/RIOS   www.certifymerecycling.org
- Standards address the environmentally responsible processing of electronics
- Auditing of recyclers by independent, 3rd party organizations that are qualified & accredited to issue certification to specific standard
- Similar to EPEAT, purchasers just need to specify recycler certification (R2, R2/RIOS or e-Stewards) & leave the rest to the experts!

Example: R2 Certified Recyclers

Available Resources

- SEC website at www.stateelectronicschallenge.net
  - EPEAT Tutorial
  - Sample contract language
  - Information on & links to find certified recyclers
- EPEAT Registry for product searches www.epeat.net
  - Need help searching? Contact us!
- Your vendors
  - Reporting EPEAT purchases & units recycled

Sustainability Reports

Results Provided to Partners

Environmental Sustainability Report
Calendar Year 2012

City of XX, State of XX
March 27, 2013

Data Input[1]

		Desktop Processors	LCD Monitors	CRT Monitors	Notebook Computers
Purchasing					
EPEAT®	Bronze				
	Silver				
	Gold	91	51		53
Use					
Power Management Enabled	73%	2,721	725		
Average Lifespan	84 Months	2,721	725		
Paper Reduction	Reams				
End-of-Life Management					
Reuse – computers & monitors		170	163		30
Recycling – Computers & monitors (units)				5	
Mobile phones (units)					
Mixed office electronics (lbs.)		175 lbs.			

Data Inputs

Environmental Benefits[2]

Reduction In	Purchasing	Use	Reuse & Recycling	TOTAL BENEFITS How Much	TOTAL BENEFITS Equivalent To
	How Much	How Much	How Much	How Much	Equivalent To
Energy use	66,949 kWh	4.47 million kWh	1.01 million kWh	5.55 million kWh	Electricity to power 434 homes/year
Greenhouse gas emissions	11 metric tons of carbon equivalents	850 metric tons of carbon equivalents	194 metric tons of carbon equivalents	1,055 metric tons of carbon equivalents	Removing 758 cars from the road/year
Toxic materials, including lead & mercury	14 lbs.	215 lbs.	28 lbs.	257 lbs.	
Municipal solid waste	2,168 lbs.	54,071 lbs.	7,539 lbs.	63,778 lbs.	Waste generated by 15 households/year
Hazardous waste	396 lbs.	5,905 lbs.	879 lbs.	7,180 lbs.	

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Thanks to EPEAT for the use of some slides

NERC is an equal opportunity provider & employer

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ISRI R2/RIOS