

GO GREEN with EPEAT!

Buying Green Electronics Today!



Sponsored by:
Northwest Product Stewardship Council (NWPSC), EPA Region 8, 9, and
10, and the
Northeast Recycling Council, Inc. (NERC)
August 24, 2006

Sponsored by:

Environmental Protection Agency (EPA)



- ❑ The mission of the Environmental Protection Agency is to protect human health and the environment. Since 1970, EPA has been working for a cleaner, healthier environment for the American people.
- ❑ EPA's support of the development and use of EPEAT is linked to specific objectives in EPA's 2003-2008 Strategic Plan: to prevent pollution and promote environmental stewardship by government, the public and business. The use of EPEAT will assist EPA in meeting its strategic targets. It will also assist other federal agencies that have environmentally preferable purchasing programs and policies meet numeric targets for reducing hazardous and non-hazardous waste and reducing energy use. <www.epa.gov>

Sponsored by:

**Northwest Product
Stewardship Council**



What is Product Stewardship?

Product Stewardship is an environmental management strategy that means whoever designs, produces, sells, or uses a product takes responsibility for minimizing the product's environmental impact throughout all stages of the products' life cycle.

<www.productstewardship.net>

[NWPSC]

- **Council Mission:** The Northwest Product Stewardship Council is a group of government organizations that works with businesses and nonprofit groups to integrate product stewardship principles into the policy and economic structures of the Pacific Northwest.
- Actively engaged in electronics -- NWPSC members are involved in several product stewardship outreach efforts and pilot programs with computer manufacturers, retailers, repair and reuse organizations to properly manage used electronic products.

Sponsored by: Northeast Recycling Council

What is NERC's purpose?

To advance an environmentally sustainable economy by promoting source and toxicity reduction, recycling, and the purchasing of environmentally preferable products and services.



NERC

- Non-profit
- 10 Northeast states
- Mission promote environmental sustainability through solid waste management - including environmentally preferable purchasing
- Actively engaged in electronics – design, reuse & recycling
- <www.nerc.org>

Speakers

- Scot Case, Program Customer Services Manager, Green Electronics Council
An Overview of EPEAT: What it is & How to Use it
- Carl Eckersley, Environmental Manager, Hewlett-Packard Development Company
A Manufacturer's Perspective
- Dmitriy Nikolayev, Environmentally Preferable Product Procurement Program, Massachusetts Operational Services Division
State Procurement: A Real Life Example
- Patty Dillon, Program Manager, Northeast Recycling Council
Resources Available for Using EPEAT



The Green IT Revolution

Responsible Purchasing Goes High Tech

Scot Case,
Green Electronics Council

scot.case@greenelectronicscouncil.org
610 779-3770





Agenda

- What is EPEAT?
 - Why is EPEAT necessary?
 - Who is using EPEAT?
 - How can I use EPEAT?
 - Where can I get more information?
-





What is EPEAT[®]?

**Responsible Purchasing
Goes High Tech**





What is EPEAT[®]?

An easy-to-use purchasing tool to help organizations compare computer desktops, laptops and monitors based on their environmental attributes.





What is EPEAT[®]?

- 1) Set of voluntary environmental performance criteria (IEEE 1680 American National Standard for the Environmental Assessment of Personal Computer Products)
 - 2) System for identifying and verifying products meeting the criteria (www.epeat.net)
-





What is 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
-





What is EPEAT[®]?

Environmentally Sensitive Materials:

Required

- Comply with European RoHS Directive, which restricts cadmium, mercury, lead, hexavalent chromium, and selected brominated flame retardants.
- Report amount of mercury used in light sources.
- Eliminate SCCP flame retardants and plasticizers.

Optional

- Eliminate all intentionally added cadmium.
 - Include additional limits on mercury content for light sources.
 - Eliminate intentionally added mercury for light sources.
 - Eliminate intentionally added lead.
 - Eliminate additional flame retardants.
 - Provide batteries free of lead, cadmium, and mercury.
 - Eliminate PVC in large plastic parts.
-





What is EPEAT[®]?

Materials Selection:

Required

- Declare postconsumer recycled plastic content
- Declare renewable/bio-based plastic materials content
- Declare product weight

Optional

- Meet a specified minimum postconsumer recycled plastic content.
 - Meet an even higher minimum postconsumer recycled plastic content
 - Meet a minimum renewable/bio-based plastic material content
-





What is EPEAT[®]?

Design for End of Life:

Required

- Identify all materials with special handling needs.
- Eliminate paints and coatings that are incompatible with recycling or reuse.
- Design external case to be easily disassembled.
- Identify all plastic components.
- Make it easy to identify and remove components with hazardous materials.

Optional

- Reduce number of plastic types used.
 - Eliminate molded/glued metal.
 - Ensure at least 65% of product is recyclable or reusable.
 - Ensure at least 90% of product is recyclable or reusable.
 - Design products to make it easy to separate plastic types.
-





What is EPEAT[®]?



BRONZE

TM **EPEAT Bronze**– Meets the 23 required criteria



SILVER

TM **EPEAT Silver**– Meets 23 required criteria and at least 50% of the optional criteria



GOLD

TM **EPEAT Gold**– Meets 23 required criteria and at least 75% of the optional criteria



What is EPEAT[®]?

Verification Process:

- Like the Energy Star program, products are verified after they are registered.
 - Products are routinely tested
 - Test a single attribute or set of attributes across all products
 - Test all attributes within a single product or a subset of all products
-





What is EPEAT[©]?

EPEAT was developed over an intensive three year, EPA-funded process that included more than 100 stakeholders, including the following:

- **Purchasers** – EPA, DOI, GATX, Pitney Bowes, State of MA, State of OR, State of CA, City of Seattle, Federal Electronics Challenge
- **NGOs** – SVTC, Center for a New American Dream, Inform, H2E, NERC, *Zero Waste Alliance (Facilitator)*
- **Governments** – Federal, State and Local
- **Recyclers** - United Recycling, Waste Management, IAER
- **Academia** – Tufts, NJIT
- **Manufacturers** – Dell, HP, IBM, Apple, Panasonic, Sharp, EIA



Why is EPEAT[®] Necessary?

**Responsible Purchasing
Goes High Tech**





Why is EPEAT[®] Necessary?

- Promote product design changes that reduce environmental and health impact of electronics throughout the life cycle.
 - Growing demand by institutional purchasers for easy to use tool to compare and select “green” products.
 - Manufacturers’ need for clear, consistent procurement criteria.
-





Why is EPEAT[®] Necessary?

Computers and other office electronics consume 74 billion kWh of electricity per year, equivalent to the annual electricity consumption of 7 million households.





Why is EPEAT[®] Necessary?

Most of the 315 million computers that became obsolete from 1997 to 2004 ended up in landfills

- 1.2 billion pounds of lead
- 2 million pounds of cadmium
- 400,000 pounds of mercury
- 1.2 million pounds of hexavalent chromium





Why is EPEAT[®] Necessary?

Based on very preliminary estimates and conservative assumptions, EPEAT-registered products over the next 5 years will save more than:

- 13 million pounds of hazardous waste
- 3 million pounds of non-hazardous waste
- Nearly 600,000 megawatt/hours of energy

These estimates are derived from the initial draft of the Environmental Benefits Calculator, being developed by the University of Tennessee. The initial draft of the tool will soon be undergoing peer review.





Who is Using EPEAT[®]?

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Who is Using EPEAT[®] ?

Federal Agencies:

- Executive Order 13101 requires federal agencies to buy more environmentally preferable products.
- The Federal Acquisition Regulations (FAR) also require green purchasing.





Who is Using EPEAT[®] ?

Current EPEAT Users

(As of July 17, 2006)

Department of Defense, Army	\$15.0B
Department of Homeland Security	\$6.0B
NASA	\$5.6B
Veterans Administration	\$4.2B
Department of Energy	\$0.4B
Department of Interior	\$0.2B
Department of Transportation	\$0.04B
Environmental Protection Agency	\$0.04B
Massachusetts	\$0.07B
TOTAL	\$31.55B



Who is Using EPEAT[®] ?

Additional EPEAT Users

(As of July 17, 2006)

- Kaiser Permanente
 - Minnesota
 - New Zealand Department of Defense
 - San Jose, California
 - White House Executive Office of the President
-





How Can I Use EPEAT[®]?

**Responsible Purchasing
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How Can I Use EPEAT[®] ?

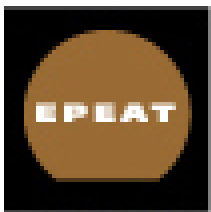

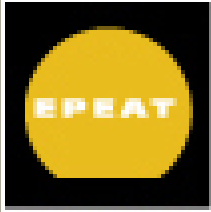
- Put EPEAT registration requirements into RFPs, RFIs, RFQs, and contracts.
- Use the online EPEAT database at www.epeat.net





How Can I Use EPEAT[®] ?

Note: This is not real data. It is for demonstration purposes only.

EPEAT Registered Products				
Product	 TM BRONZE	 TM SILVER	 TM GOLD	Total
Desktops	<u>9</u>	<u>2</u>	<u>3</u>	14
Monitors	<u>6</u>	<u>1</u>	<u>4</u>	11
Notebooks	0	<u>1</u>	<u>3</u>	4

<www.epeat.net>



How Can I Use EPEAT[®] ?



PRODUCT SEARCH

Product Type: All Product Types Desktops Monitors Notebooks

Model: Starts with

Manufacturer: All companies
Case Computing
DN Technology Corp
Electronics R Us

To select more than one manufacturer, hold down the "Ctrl" key and click the manufacturer name(s)

Rating: Bronze or better Silver or better Gold

[Search by Optional Criteria](#)

<www.epeat.net>

Note: This is not real data. It is for demonstration purposes only.



How Can I Use EPEAT[®] ?



SEARCH RESULTS

You searched for:
Product Type: All Product Types
Bronze or Better

* Export to CSV * Export to EXCEL

29 Search Results Found
Results Per Page 10

[Printer-friendly](#) [Search Again](#) [Show all Products](#)

Model	Manufacturer	Product Category	Rating	Opt. Pts	Exceptions	Monitor Type	Listing Date	
TC 001	TrueComp Industries	Desktops	Bronze	0			5/24/2006	<input type="checkbox"/>
VS 800	Simply Salazaar	Monitors	Bronze	0		Flat Panel	5/24/2006	<input type="checkbox"/>
VS801	Simply Salazaar	Notebooks	Bronze	41			5/24/2006	<input type="checkbox"/>
SC 1000	Case Computing	Desktops	Silver	17			5/24/2006	<input type="checkbox"/>
JO 2001	Jeffs Computer Shack	Monitors	Gold	39			5/24/2006	<input type="checkbox"/>
WR 222	Rifer	Monitors	Bronze	0			5/24/2006	<input type="checkbox"/>

Note: This is not real data. It is for demonstration purposes only.



How Can I Use EPEAT[®] ?



PRODUCT DETAIL [Printer-friendly version](#) [Export to CSV](#) [Export to EXCEL](#)

Product Information	Company Information
Product Type: Desktops Model/Description: DK SAS 7000 Description: The best desktop ever!!! Rating: EPEAT SILVER Listing Date: 5/24/2006 Product Status: <input checked="" type="checkbox"/> Active Exceptions:	Company: Jeffs Computer Shack POC: Jane Doe
IEEE 1680-2006 Criteria Category Summary	Optional Points
4.1 Reduction/elimination of environmentally sensitive materials	5/5
4.2 Materials selection	3/3
4.3 Design for end of life	5/5
4.4 Product longevity/life cycle extension	2/2
4.5 Energy conservation	3/3

Corporate Annual Report Points	
4.6 End of life management	0/1
4.7 Corporate performance	0/2

4.8 Packaging	4/4
Total Optional Points: 22/25	

Done

Note: This is not real data. It is for demonstration purposes only.



How Can I Use EPEAT[®] ?



PRODUCT DETAIL [Printer-friendly version](#) [Export to CSV](#) [Export to EXCEL](#)

Product Information	Company Information
Product Type: Notebooks Model/Description: HE 2001 Description: Rating: EPEAT SILVER[™] Listing Date: 6/13/2006 Product Status: <input checked="" type="checkbox"/> Active Exceptions:	Company: Elwood Electronics Inc. POC: Tim Kelley
IEEE 1680-2006 Criteria Category Summary	Optional Points
4.1 Reduction/elimination of environmentally sensitive materials	0/8
4.2 Materials selection	0/3
4.3 Design for end of life	0/5
4.4 Product longevity/life cycle extension	0/2
4.5 Energy conservation	0/3

Corporate Annual Report Points	
4.6 End of life management	1/1
4.7 Corporate performance	2/2

4.8 Packaging	0/4
Total Optional Points: 3/28	
<input type="button" value="Done"/>	

Note: This is not real data. It is for demonstration purposes only.



How Can I Use EPEAT[®] ?

Recommended Contract Language:

All desktops, laptops, and computer monitors provided under this contract are required to have achieved Bronze registration or higher under the Electronic Products Environmental Assessment Tool (EPEAT). EPEAT is a procurement tool designed to help large volume purchasers evaluate, compare, and select desktop computers, laptops, and monitors based upon their environmental attributes as specified in the consensus-based IEEE Standard for the Environmental Assessment of Personal Computer Products (1680).

Additional consideration will be provided for products that have achieved EPEAT Silver or EPEAT Gold registration. The registration criteria and a list of all registered equipment are provided at <www.epeat.net>.



How Can I Use EPEAT[®] ?

DHS IT Contract Language

- Excerpt from FirstSource:
 - C.4.1.4 System Requirements
 - “...The Contractor is advised that DHS is an active participant in the Federal Electronics Challenge program. During the term of this contract, the Government reserves the right to purchase exclusively or otherwise provide preference for specific models of desktop computers, notebooks and monitors qualified through the Electronics Products Environmental Assessment Tool (EPEAT) or its successor.”





Where Can I Get More Info?

**Responsible Purchasing
Goes High Tech**





Where Can I Get More Info?

- EPEAT Website www.epeat.net



Scot Case

610 779-3770

scot.case@greenelectronicscouncil.org



HP's involvement in the development of EPEAT[®]

Carl Eckersley
Personal Systems Group
Product Stewardship

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The information contained herein is subject to change without notice



Agenda



- Brief HP facts
- Why environmental issues matter at HP
- Design for the environment
- HP's involvement in EPEAT development
- HP products registered with EPEAT[®]
- Next steps



HP facts



- Fortune 11 company
- Leadership in virtually every market, customer segment and region
- Operations in 178 countries
- 150,000 employees
- 145,000 sales partners
- ~30 million PCs shipped/year
- 11 patents a day



Environmental sustainability

...and what does it mean to HP



We deliver technologies, products and services that minimize not only the environmental impact, but also those of our customers through product and material innovation, energy efficiency, end-of-life solutions and sound operations.



Why environmental issues matter at HP?



- HP's commitment to corporate environmental responsibility started with William Hewlett and David Packard in 1930's
- Reduce environmental footprint of HP products in the market and throughout the product life cycle
- Provide customers with the best value and experiences through innovative, environmentally-sound products
- Competitive requirement in a global market
- Compliance with complex environmental standards and government regulations worldwide
- Environmental concerns for organized interests (NGO's) and consumer preferences
- It's the smart thing to do!



The 3 R's



Reduce

- HP products are getting lighter, smaller and use less energy

Reuse

- Leasing, trade-in, upgrading and donation programs all extend product life

Recycle

- Convenient, inexpensive, and responsible recycling feeds new product streams with reclaimed material

HP's environmental commitment

Reducing the impact throughout the product life cycle



➤ Design for Environment

- Right materials, minimizing parts, enabling recyclability, product stewards across the business
- Formal DfE program since 1992

➤ Manufacturing

- Production processes that minimize environmental impact

➤ Use

- Minimize waste (failures, reprints), greater energy and resource efficiency

➤ End of life management

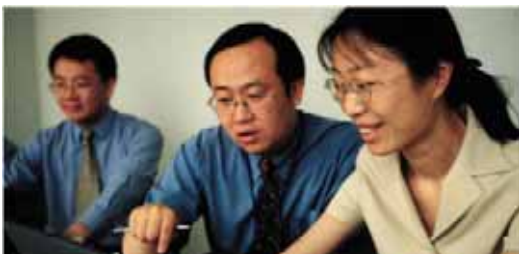
- Convenient return and recycling, material recovery

Our DfE program

...built on collaboration and flexibility



- Importance of organizational alignment through product development to market introduction stages
- Product environmental steward on product design team
- Set environmental design goals for products
- Develop design tools and rigorous review process



HP's involvement in EPEAT[®] development



- **July 2003** – HP attends the first Federal Electronics Challenge (FEC) meeting on thermoplastic criteria. Meeting continued until mid 2004. The criteria developed were the basis of the plastic criteria used in EPEAT[®].
- **November 2003** – HP attends the first Development team meeting in Arlington, VA, becoming a member of the development team.
- **January 2004** – Second development team meeting in Round Rock, TX becomes a member of the Attribute (criteria) team, Scoring team, Organizational team,
- **April 2004** – EPEAT[®] Meeting in West Chicago, IL
- **July 2004** – EPEAT[®] Meeting in Portland, OR
- **November 2004** – EPEAT[®] Meeting in Washington, DC - HP becomes a member of the Implementation team.
- **March 2005** – EPEAT[®] Meeting in Washington DC
- **Spring 2005** – HP joins the California Purchasing Criteria Working Group and successfully helps the group adopt EPEAT[®] to meet the requirements of SB20.
- **January 2006** – HP hosts EPEAT[®] Implementation Team Meeting and P1680 WG Meeting in Houston, TX
- **March – June 2006** – HP worked closely with the GEC in providing input to the fee structure, formulating the Mfg's Agreement, and testing the EPEAT[®] registry database
- Since **May 2006** HP is represented on the Board of Advisors.

HP products registered with EPEAT®



- HP registered **32** business desktops, notebooks, workstations and displays with EPEAT®.



- Silver rating for **8** HP Business Desktops

- Silver and Bronze rating for **11** HP LCD Flat Panel Monitors (15"–24")



- Silver rating for **13** HP Business Notebooks, Tablet PC, and Mobile Workstations

- EPEAT® compliant products are listed at www.epeat.net



Next steps



- Add EPEAT[®] criteria to DfE – PSG
- Drive continual improvements and strive for even higher compliance levels
- Communicate EPEAT[®] requirements via product Plan of Record (POR)
- Provide expert advice through GEC Board of Advisors

A dramatic sunset over a field with a building and utility poles. The sky is filled with large, dark clouds that are illuminated from below, creating a vibrant orange and yellow glow. The sun is low on the horizon, casting a warm light across the landscape. In the foreground, there is a field of green grass and shrubs. In the middle ground, there is a small, rectangular building with a flat roof, possibly a utility shed or a small house. To the left of the building, there are several utility poles with cross-arms. The overall scene is peaceful and scenic.

Thank You!

Buying Greener Computers

The Commonwealth of Massachusetts Experience

Dmitriy Nikolayev

Procurement Manager

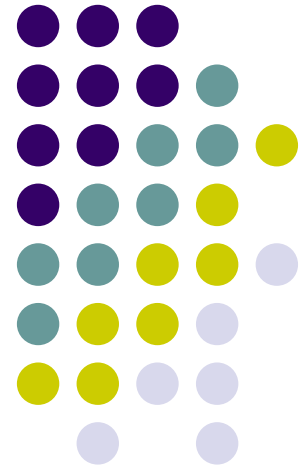
Facilities & Environmental Services

Operational Services Division

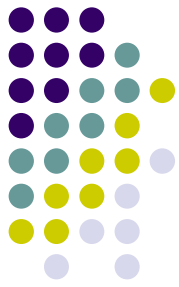
Commonwealth of Massachusetts

(617) 720-3351, Dmitriy.Nikolayev@osd.state.ma.us

August 24, 2006

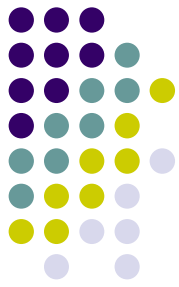


Green Purchasing and the “Best Value” Approach



- **Operational Services Division**
 - Commonwealth’s central purchasing department
- **“Best Value” approach**
 - Value-added services
 - Additional discounts
 - Environmental considerations
- **EPP Purchasing Program: 2 full-time staff**
 - Product and service research
 - Writing specifications for statewide contracts
 - Marketing the contracts to purchasers statewide
- **Education and training vs. mandating EPPs**

Current Specifications Overview



- **Mandatory**

- Energy Star compliance

- **Desirable**

- Compliance with the Draft Principles for Purchasing Environmentally Preferable Computers, Monitors and Peripherals
- Packaging recycling, preferably at no cost
- Providing end-of-life management options, preferably at no cost



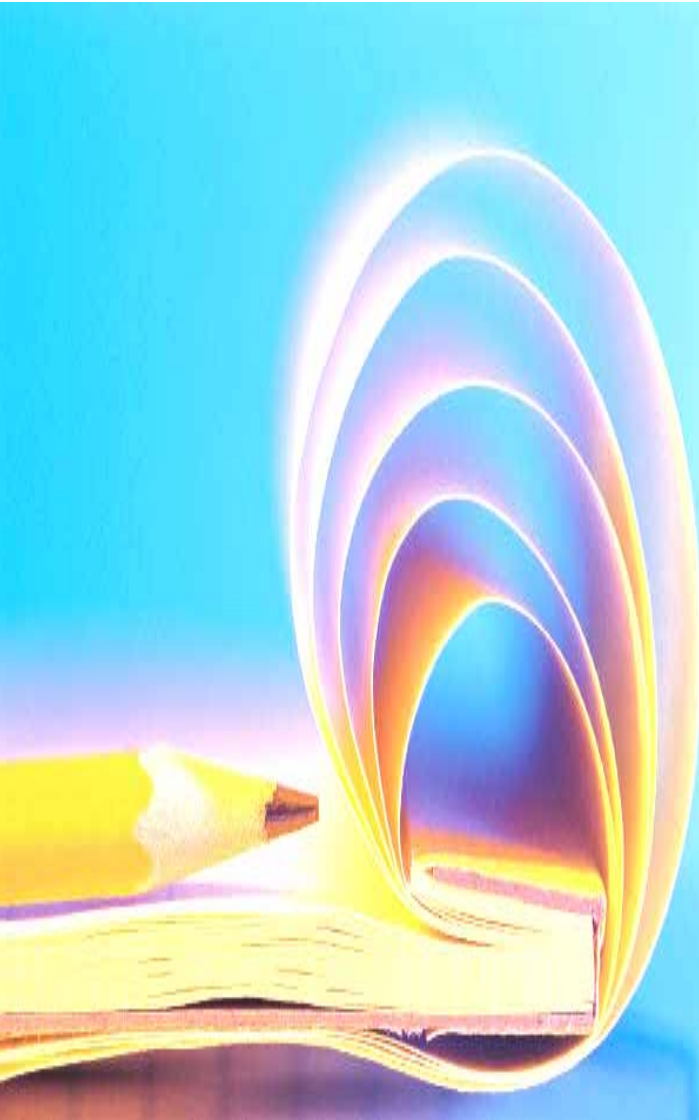
Outline of Principles



- Design for the Environment and Human Health
- Promote Energy Efficiency and Improve User Health
- Ensure Safe and Environmentally Sound End-of-Life Management
- Manufacturer Responsibility



Lessons Learned



- All OEMs responded to the Draft Principles for Purchasing Environmentally Preferable Computers, Monitors and Peripherals
- More than half of the responses involved national/corporate level officials
- In all cases we received enough information to evaluate the response

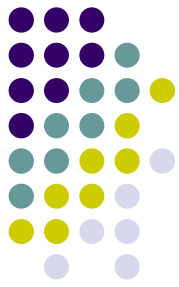
More Lessons



- **Specifications**
 - Too many sets of specifications
 - Too many individual criteria
 - Unclear what is available
- **Evaluation**
 - Too much information to analyze
 - Grading manufacturers vs. response quality
- **Promoting Green Computers**
 - Unable to compare individual models
 - Eco-labels not very helpful
- **Tracking**
 - No way of tracking the environmental impact



Why EPEAT will Work for Us?



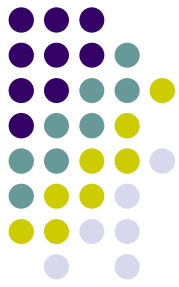
- **Removes information overload**
- **Stakeholder buy-in**
 - Based on a national standard
 - Widely accepted by the industry
 - Welcomed by many environmental groups
 - Backed by the federal, state and local governments
- **Compares apples to apples**
- **Provides a tool to estimate environmental benefits**



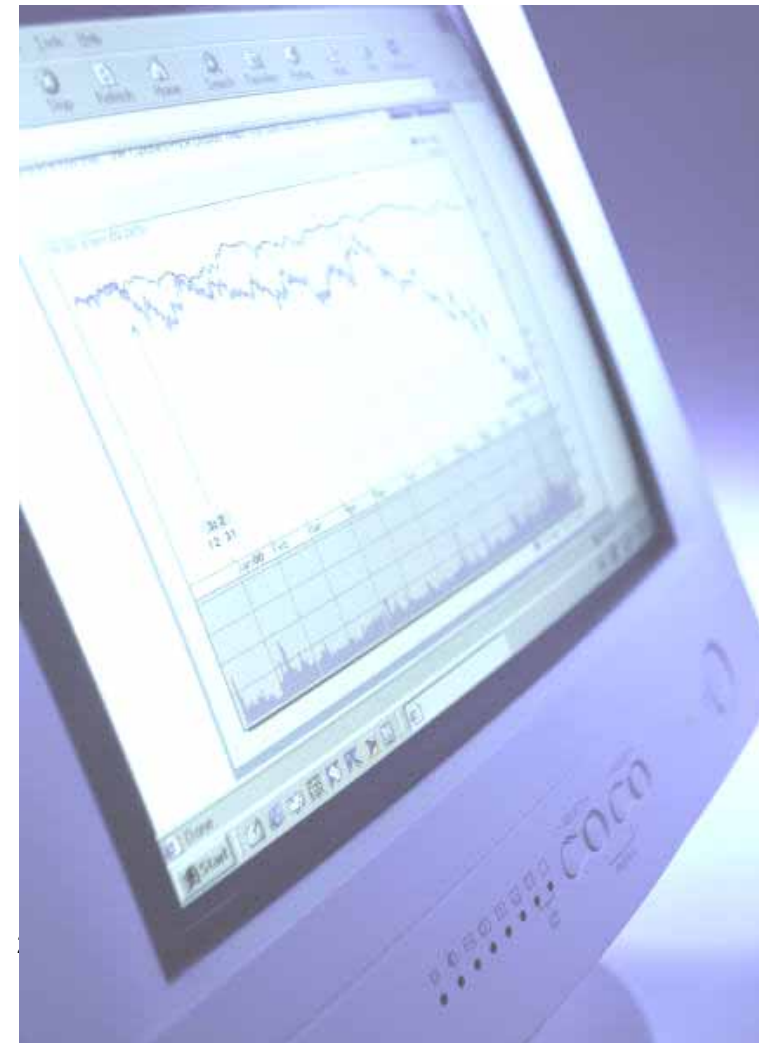
If We Went out to Bid Now

- **The Commonwealth intends to use the Electronic Products Environmental Assessment Tool (EPEAT) in purchasing electronic products.** EPEAT is a procurement tool designed to help institutional purchasers evaluate, compare, and select desktop computers, laptops, and monitors based upon their environmental attributes as specified in the consensus-based IEEE Standard for the Environmental Assessment of Personal Computer Products (1680).
- **During the term of this contract, the Commonwealth reserves the right to purchase exclusively or otherwise provide preference for specific models of desktop computers, laptops, and monitors that have achieved EPEAT Bronze registration or higher.** The registration criteria and a list of all registered equipment are provided at <www.epeat.net>.

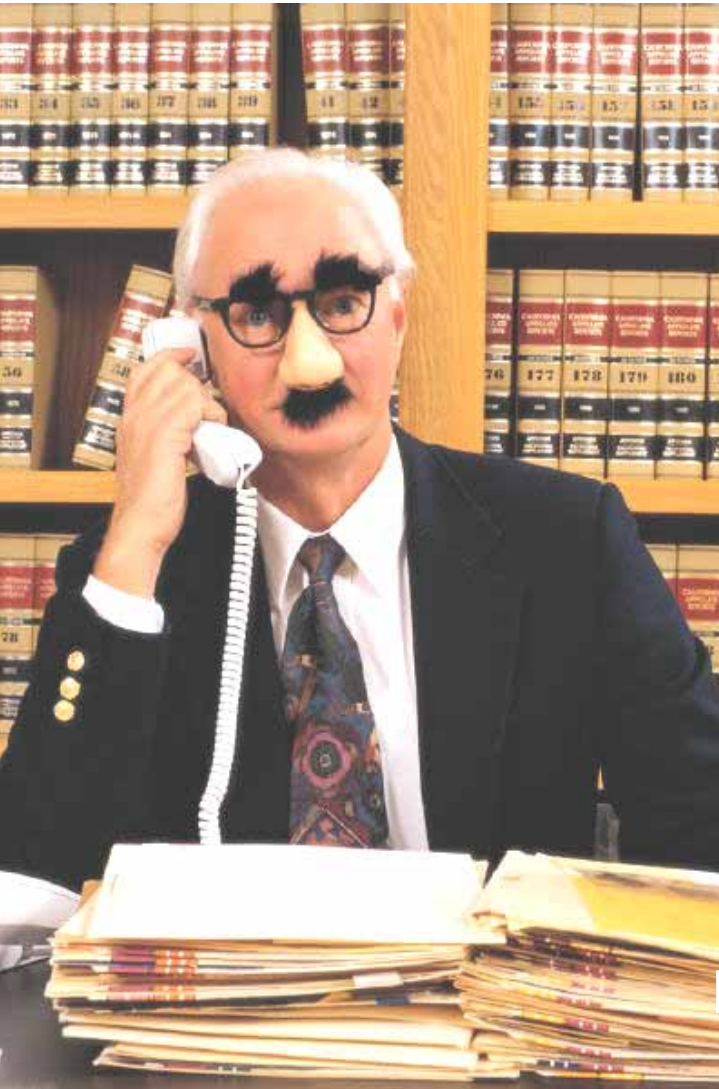
Recommended Actions for Purchasers



- **Today**
 - Tell suppliers about your plans to buy EPEAT-registered equipment
 - Ask for reporting on EPEAT registered product sales
- **Next contract**
 - Reserve the right to switch to (or provide preference for) EPEAT registered equipment at any point of the contract
 - Once comfortable with supply, require EPEAT Bronze or higher
 - Ask for reporting on EPEAT registered product sales



Contact Information



Dmitriy Nikolayev

Procurement Manager

Facilities & Environmental Services

Operational Services Division

Commonwealth of Massachusetts

(617) 720-3351

Dmitriy.Nikolayev@osd.state.ma.us

EPEAT[®] Resources

Patricia Dillon

Program Manager

Northeast Recycling Council, Inc.

Electronics Environmental Benefits Calculator

- Translates performance criteria into estimates of quantifiable environmental benefits
 - Support decision making & resource allocation
 - Report on program achievements
- Excel-based application
- Available free of charge on website (Coming Fall 2006)
- Also calculates benefits of use-phase activities & recycling

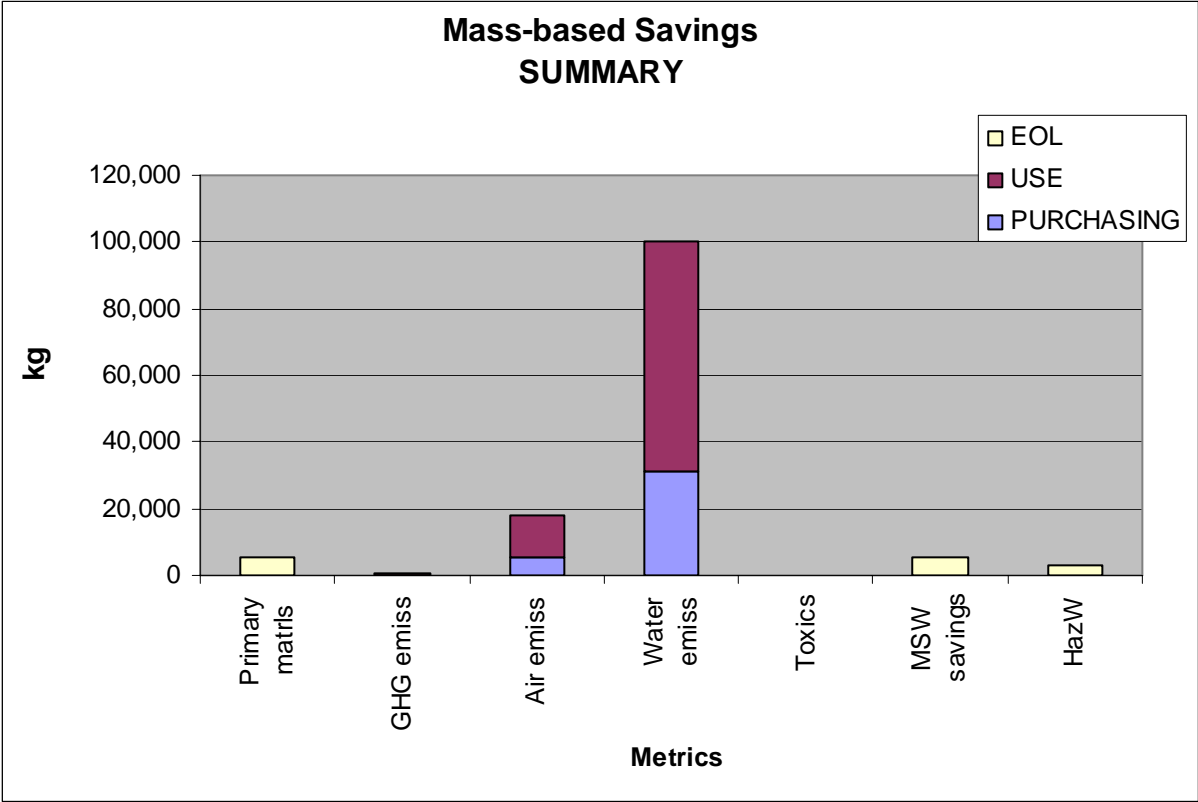
Sample Data from Calculator

Purchase 1,000 EPEAT[®]-registered products

Agency achieved the following environmental benefits:

- X kWh of energy use reduced
- X pounds of GHG emissions reduced
- X pounds of toxic materials & hazardous wastes reduced
- X pounds of non-hazardous materials reduced
- X pounds of air & water emissions reduced
- X pounds of waste diverted from landfills
- X dollars of costs reduced or saved

Sample Graph from Calculator



Other Resources

- **EPEAT® website** (www.epeat.net)
 - EPEAT® Product Registry
 - Summary of criteria
 - For *purchasers*
 - Sample contract language
 - Who's using EPEAT® & contract language
 - List serve sign up
 - Electronics Environmental Benefits Calculator
- **IEEE website** (<http://standards.ieee.org>)
 - Purchase complete EPEAT® standard

Contact Information

Patricia Dillon

Program Manager

Northeast Recycling Council, Inc.

Direct line: 978 346 9462

patty@nerc.org

www.nerc.org

Questions?

THANK YOU
FOR LISTENING!



This portion of the presentation will be for
questions and answers.



Biographies of Speakers

Scot Case, Carl Eckersley,
Dimitriy Nikolayev, and
Patricia Dillon

Scot Case – Green Electronics Council

scot.case@greenelectronicscouncil.org

- Scot Case is an internationally recognized expert on responsible sourcing with more than a dozen years of professional experience. As marketing director for the Green Electronics Council, President of Responsible Sourcing Solutions, and former Director of Procurement Strategies at the Center for a New American Dream, Scot helps large organizations integrate human health, environmental, and social considerations into their strategic planning, purchasing, and other critical business decisions.
- He has delivered more than 80 keynote speeches, full-day trainings, or presentations throughout the United States and abroad to audiences of up to 1,000 people. He has published more than four dozen articles, case studies, and book chapters. As a consultant to the U.S. Environmental Protection Agency, he wrote an extensive series of reports documenting the growing environmental purchasing movement. He currently writes a regular feature in *Government Procurement* magazine called “The Green Purchaser.”
- He earned his Bachelors and Masters Degrees from Virginia Tech. Scot currently resides in Reading, Pennsylvania, with his wife and two young daughters in a 150-year old farmhouse they restored using environmentally friendly building materials.

Carl Eckersley – Manager, Environmental & Manufacturing Engineering

Hewlett Packard, Personal Systems Group

- Carl is the manager of environmental and manufacturing engineering in the personal systems group (PSG) at Hewlett Packard. As the manager of PSG environmental product stewardship, Carl's team ensures PSG products meet customer environmental expectations and comply with all applicable environmental laws around the world. As the mfg engineering manager, Carl's team is responsible for printed circuit board design for manufacturability assessment, manufacturing process assessment and development, and design for supply chain programs.
- Carl is a 22 year veteran of Compaq/HP and has a B.S. in Industry Engineering.



Dmitriy Nikolayev – Operational Services Division Commonwealth of Massachusetts

Dmitriy.Nikolayev@state.ma.us

- Dmitriy Nikolayev is a Procurement Manager for Facilities and Environmental Services at the Operational Services Division (OSD), the central purchasing office for the Commonwealth of Massachusetts. Dmitriy works with the Environmentally Preferable Products Procurement Program responsible for reducing the environmental impact of the state's operations through purchasing a wide range of green products and services including computer equipment. He played the key role in developing environmental specifications for the Commonwealth's statewide contract for IT Hardware and Peripherals.

Patty Dillon – Northeast Recycling Council (NERC)

Patty.Dillon@nerc.org

- Patty Dillon is a program manager here at the Northeast Recycling Council. She works on a number of projects, including this project to promote EPEAT. Patty was involved in the development of EPEAT for almost 3 years as a member of the EPEAT Development and Implementation Teams. Patty also has her own consulting firm, Dillon Environmental Associates that provides support to government, industry and non-profits largely focusing on electronics. She's a contractor to EPA, providing technical assistance for the Federal Electronics Challenge and has developed the Electronics Environmental Benefits Calculator, which you'll hear about this morning, under a cooperative agreement with EPA Region 10 and the University of Tennessee.