



**EPEAT**

# **Purchasing Green Computers Made Simple: The Electronic Product Environmental Assessment Tool**

Northeast Recycling Council, Inc.

March 2008





# Why Purchase “Green” Computers?

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Electronics represent financial & environmental costs & opportunities

- Energy use/costs
- Potential harm to public health & the environment from toxic content, manufacturing & recycling waste
- Environmental compliance liabilities if mishandled at end-of-life



# Why Purchase “Green” Computers?

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Most of the 315 million computers that became obsolete between 1997 - 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

# What is EPEAT™?

## Electronic Product Environmental Assessment Tool

An easy-to-use purchasing tool that compares desktop computers, laptops, & monitors based on their environmental attributes.





# Why EPEAT™?

- Growing demand by institutional purchasers for easy-to-use tool to compare & select “green” products
- Manufacturers’ need for clear, consistent procurement criteria





# Development of EPEAT™

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- Three year multi stakeholder process lead by U.S. EPA
  - Computer manufacturers, environmental advocates, procurement officials, technical experts, recyclers
- Now managed by the Green Electronics Council
- Continues to be advised by multi-stakeholder group





# The EPEAT™ System

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- Standard comprised of 51 environmental performance criteria (IEEE Standard 1680 for the Environmental Assessment of Personal Computer Products)
- System for registering & identifying products that meet these criteria
- System for verifying conformance



# Environmental Performance Criteria

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23 Required Criteria + 28 Optional in  
8 Categories:

- Reduction of Toxic Constituents
- Materials Selection
- Product Longevity/Life Cycle Extension
- Design for End-of-Life
- Energy Conservation
- End-of-Life Management
- Corporate Performance
- Packaging

# Reduction of Toxics - Example

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## Required

- Comply with RoHS Directive.
- Report mercury usage in light sources

## Optional

- Eliminate intentionally added mercury for light sources
- Batteries free of lead, cadmium, mercury
- Eliminate PVC in large plastic parts



# Energy Conservation - Example

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## Required

- ENERGY STAR 4.0

## Optional

- Renewable energy accessory



# Materials Selection - Example

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## Required

- Declare post-consumer recycled plastic content
- Declare renewable/biobased plastic materials

## Optional

- 10% minimum post-consumer recycled plastic
- 25% minimum post-consumer recycled plastic
- 10% minimum renewable/biobased plastic material



# Three Performance Tiers

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™

BRONZE

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



™

SILVER

**EPEAT Silver**– Meets 23 required criteria & at least 50% of optional



™

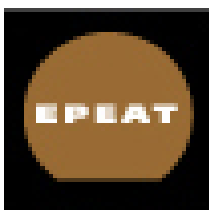

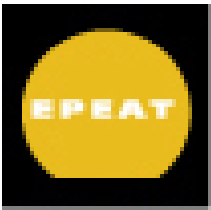
GOLD

**EPEAT Gold** – Meets 23 required criteria & at least 75% of optional



# EPEAT™ Product Registry

As of March 4, 2008

EPEAT Registered Products Search Tool				
Product	 ™ <b>BRONZE</b>	 ™ <b>SILVER</b>	 ™ <b>GOLD</b>	Total
Desktops	<u>4</u>	<u>53</u>	<u>24</u>	<u>81</u>
Integrated Systems	0	<u>5</u>	0	<u>5</u>
Monitors	<u>7</u>	<u>271</u>	<u>6</u>	<u>284</u>
Notebooks	<u>17</u>	<u>108</u>	<u>14</u>	<u>139</u>
Totals	<b>28</b>	<b>437</b>	<b>44</b>	<b>509</b>

[www.epeat.net](http://www.epeat.net)



# 25 Participating Manufacturers

March 2008

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and the top brand names.....

- Apple
- Dell
- Fujitsu
- HP
- Lenovo
- LG Electronics
- NEC Display
- Panasonic
- Philips Electronics
- Samsung
- Sony Electronics
- Toshiba
- ViewSonic



# Current EPEAT™ Users

(As of March 2008)

## ■ U.S. Government

- Dept. of Defense (Army)
- Dept. of Energy
- Dept. of Homeland Security
- Dept. of Interior
- Dept. of Transportation
- NASA
- Environmental Protection Agency
- General Services Administration
- Executive Office of the President

## ■ Municipal Governments

- City of Phoenix, Arizona
- City of San Jose, California
- City of Seattle, Washington

## ■ Other National Governments

- Government of Canada
- New Zealand Dept. of Defense

## ■ Private Sector

- HDR, Portland Oregon
- Kaiser Permanente
- McKesson Corporation
- Premier Inc.

## ■ State Governments

- Commonwealth of Massachusetts
- State of California
- State of Minnesota
- New York State
- State of Pennsylvania
- State of Wisconsin



# Federal Purchasing

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- Approx. \$45 billion in contracts citing EPEAT™
- Executive Order 13423, January 2007, requires ***all federal agencies*** to buy at least 95% EPEAT™-registered products
- Incorporated into Federal Acquisition Regulation, December 2007



# How You Can Use EPEAT™ ?

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- Specify EPEAT™ in RFPs & contracts



# Recommended Contract Language

- All desktops, laptops, & monitors provided under this contract are **required** to have achieved **Bronze** registration or higher under EPEAT™
- **Additional consideration** will be provided for products that have achieved **EPEAT™ Silver or EPEAT™ Gold registration**
- Suppliers are required to provide **quarterly reports** quantifying number of EPEAT™ registered products purchased under contract

# How You Can Use EPEAT™ ?

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- Use the online EPEAT™ registry at [www.epeat.net](http://www.epeat.net)



# EPEAT™ Product Registry



## PRODUCT SEARCH

**Product Type:**  All Product Types  Desktops  Monitors  Notebooks

**Model:** Starts with

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

- All companies
- Case Computing
- DN Technology Corp
- Electronics R Us

**Rating:**  Bronze or better  Silver or better  Gold

Search

Reset

Show All Products

[Search by Optional Criteria](#)

# EPEAT™ Product Registry

## 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  




[Printer-friendly](#)



[Search Again](#)



[Show all Products](#)

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



# EPEAT™ Product Registry



## Product Information

**Product Type:** Notebooks

**Product:** Tecra M9 - PTM91C

**Manufacturer:** Toshiba

**URL:** <http://www.Toshiba.com>

**Rating:** **EPEAT SILVER™**

**Listing Date:** 11/15/2007

**Monitor Type:** Flat Panel

**Monitor Size:** 14 in

**Product Status:** ■ Active

**Exceptions:**

IEEE 1680-2006 Criteria Category Summary	Optional Points
4.1 <u>Reduction/elimination of environmentally sensitive materials</u>	7/8
4.2 <u>Materials selection</u>	0/3
4.3 <u>Design for end of life</u>	5/5
4.4 <u>Product longevity/life cycle extension</u>	2/2
4.5 <u>Energy conservation</u>	0/2
<b>Corporate Annual Report Points</b>	
4.6 <u>End of life management</u>	1/1
4.7 <u>Corporate performance</u>	2/2
4.8 <u>Packaging</u>	3/4
<b>Total Optional Points:</b>	<b>20/27</b>



# Environmental Benefits\*

For every 1,000 EPEAT™-Silver registered computers 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

\* Calculated using the U.S. EPA-funded Electronics Environmental Benefits Calculator (version 1.1, dated 4-18-07), <http://eerc.ra.utk.edu/ccpct/eebc/eebc.html>.



# More Environmental Benefits

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- ↓ Municipal solid waste by 34.7 metric tons  
= waste generated by 18 households annually
- ↓ Hazardous waste by 17 metric tons
- ↓ Toxic materials, including lead & mercury by 340 pounds





# What If.....

Purchase

1,000 CPUs + 1,000 LCDs

## Additional Benefits Savings

	<b>EPEAT™ Silver + 10% Recycled Content</b>	<b>EPEAT™ Silver + 25% Recycled Content</b>	<b>EPEAT™ Silver + 10% Recycled Content + Reusable Packaging</b>
<b>Energy*</b>	+ 1%	+ 2%	+ 21%
<b>GHG*</b>	+ 0.6%	+ 1.5%	+ 13%
<b>MSW</b>	708 lbs	1,770 lbs	46,305 lbs

\*Incorporates life cycle benefits



# Why Use EPEAT™?

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Because it makes it simple to procure “green” computers

- Addresses dozens of individual environmental criteria at once & multiple issues
- Does not add cost
- Allows flexibility – Bronze, Silver, Gold
- Will evolve & continually increase stringency
- Environmental benefits calculator



# More EPEAT™ Products Coming

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Development of standards for additional products is underway:

- Imaging equipment
- Televisions
- Servers
- Mobile devices





# For More Information

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EPEAT™ Web site [www.epeat.net](http://www.epeat.net)

- EPEAT™ Product Registry
- Summary of criteria
- Sample purchasing specification
- Who's using EPEAT™
- RFP language

# Contact Information

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NERC is an equal opportunity  
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