



ENVIRONMENTAL BENEFITS OF 2011 EPEAT® PURCHASING

Continued Global Uptake
and Positive Environmental Impact

EXECUTIVE SUMMARY



The Porter Building
227 SW Pine Street, Suite 220
Portland, OR 97204
T: (503) 279-9383

www.epeat.net

Executive Summary and Report documents are available at <http://www.epeat.net/learn-more/environmental-benefits/>

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EXECUTIVE SUMMARY

Over six years, the EPEAT green electronics rating system has become the definitive tool for purchasers seeking environmentally preferable electronics. EPEAT's breadth, depth and geographic reach have made it one of the most widely used and trusted systems worldwide for assessing product environmental performance in the IT sector. The roster of private and public purchasers around the world using EPEAT to "green" their IT purchases continues to grow, increasing interest among consumers has motivated EPEAT's gradual entry into the consumer market, and international demand continues to support the system's geographic reach.

Beginning in July 2006, the EPEAT program has evolved from three participating manufacturers—known in EPEAT as "Subscribers"—to 50, and from 60 registered products sold in the US to over 3000 unique products registered and sold in 41 countries worldwide.

The universe of EPEAT products is expanding, with new standards for imaging equipment and televisions completed in 2012 and opening for business in early 2013. Development of a new server standard and a revision of the existing PC/Display standard are both underway.

International usage has spread rapidly, with purchasers in Europe, Asia and Latin America increasingly using EPEAT to identify and specify green IT products. In 2011, United States' sales of EPEAT registered products accounted for only slightly over 50% of the total products on the registry - illustrating the trend.

This is the sixth annual report on the environmental benefits resulting from the purchase of electronic products registered and evaluated under the EPEAT program.

EPEAT Essentials

EPEAT is the definitive global rating system for greener electronics, covering the most products from the broadest range of manufacturers. Only EPEAT combines comprehensive criteria including, but not limited to, design, production, energy use, and recycling with ongoing independent verification of manufacturer claims.

Products are rated in EPEAT according to a combination of more than 50 required and optional lifecycle performance criteria. PC and display products qualify for Bronze rating by meeting 23 required criteria. To qualify for Silver and Gold rating, products must meet 50% and 75% respectively, of the optional criteria. The EPEAT Gold designation is the hallmark of the highest environmental performance, meeting an



extensive set of criteria. EPEAT Silver and Bronze products meet a broad set of criteria, making them environmentally responsible purchasing options.

Products on the EPEAT registry are subject to unannounced audits at any time, and results are publicly reported—this ongoing verification system helps ensure environmental criteria are being met as declared. (See Appendix B for more on verification.)

Finally, by providing a central product registry, EPEAT enables purchasers to view and compare the specific environmental performance of registered products from all participating manufacturers—encouraging manufacturers to compete to meet higher numbers of criteria and qualify products at higher levels. This head to head comparison and competition pushes innovation and environmental excellence forward.

Manufacturers of all sizes participate in EPEAT—from Fortune 50 global leaders, including all 10 top global producers, to small regional companies. The system provides manufacturers with guidance for developing environmentally preferable products that will meet market demand.

EPEAT's environmental performance criteria, registration and verification processes, are embodied in the Institute of Electrical and Electronic Engineers (IEEE) 1680 and 1680.1 (PC/Display criteria) standards, supplemented now by IEEE 1680.2 (Imaging Equipment) and 1680.3 (Televisions). All EPEAT standards are developed in open, consensus-based, multi-stakeholder processes. The standards development processes have been, supported by the U.S. Environmental Protection Agency (US EPA). Those processes include participants from the public and private purchasing sectors, manufacturers, environmental advocates, recyclers, technology researchers and other interested parties. The deliberations for each product standard have lasted several years.

Bringing these varied constituencies' needs and perspectives to bear on standard development enables the resulting system not only to address significant environmental issues, but also to fit within the existing structures and practices of the marketplace—making it easy to use and thus widely adopted.

As a result, EPEAT has revolutionized the environmental playing field for the electronic product sector, with very broad participation by manufacturers and purchasers of all sizes and an extensive registry of products that meet the system's demanding criteria.

2011 EPEAT Registry Growth

2011 witnessed significant growth in EPEAT product registrations, with particularly rapid growth in Gold level registrations.

There are two ways to assess the EPEAT registry's growth—by unique product count and by registrations.

Unique product count reveals the number of individual products registered in the system, and offers a rough indicator of the volume of products on the market today that are able to meet EPEAT's stringent environmental performance requirements.

The number of unique products registered in EPEAT continued to grow in 2011.

- **On January 1 2011, 46 manufacturers had some 2830 unique products registered across the system's 41 covered countries.**
- **By June 1, 49 manufacturers had 3176 unique products registered.**
- **By December 1, 2011, 50 manufacturers were registering 3671 unique products in total.**

Volume of product registrations— i.e. instances of a given product being registered in any of the 41 covered countries - is the alternate way to assess EPEAT's scope. Registration numbers are a useful indicator of the overall volume of EPEAT registered products available to purchasers in different markets around the world.

In 2011, the number of country-specific registrations remained fairly steady, following rapid growth in 2009 after implementation of the country registration system (see Appendix E).

- **In January 2011, there were 2248 product registrations for the US and 18,662 outside the US - 20,910 registrations in total.**
- **By December 2011, there were 2833 US registrations and 18,196 product registrations across the 41 other covered countries. - 21,029 EPEAT product registrations in total.**

In total, 50 manufacturers participated in EPEAT during 2011.

2011 EPEAT Registered Product Sales

EPEAT's manufacturer Subscribers reported worldwide sales of 120,810,978 EPEAT registered products in 2011.

Because EPEAT only covers a portion of the world's countries (41 in 2011, 42 currently), we can only roughly compare unit sales of EPEAT registered product to total products sold worldwide. However the comparison gives a useful indication of the prevalence of EPEAT registered products in the global market.¹

Sales of EPEAT registered products increased significantly worldwide – by nearly 30% over 2010 unit sales - to more than 120 million units.

Reviewing 2011 EPEAT registered product sales in comparison with previous years' data and with 2011 data on worldwide and regional unit sales¹ reveals that:

- **Sales of EPEAT registered products increased significantly worldwide – by nearly 30% over 2010 sales - to more than 120 million units.**
- **Sales of EPEAT registered PCs (all types) constituted over 25% of worldwide PC unit sales.¹**
- **Worldwide, EPEAT registered Notebook sales increased modestly – by 7% - but at nearly 66 million units, constituted 32% of total world notebook sales.¹**
- **Notebook sales increased by 21% in countries outside the US and Canada.**
- **Sales of EPEAT registered products in the US increased 23% over 2010, with sales exceeding 62 million products.**
- **The US share of total EPEAT registered product sales diminished to just over half of EPEAT's reported worldwide sales - reflecting rapid uptake outside the US market.**

¹ Thanks to Gartner for worldwide unit sales data

2010 EPEAT Environmental Benefits

The lifecycle environmental benefits of the reported EPEAT registered product sales are calculated using the Electronics Environmental Benefits Calculator (EEBC). The EEBC was originally developed by the University of Tennessee Center for Clean Products under a grant from the US EPA, and revised several times under EPA contract. (See methodology section - Appendix A - for more detail.) This calculation reveals remarkable lifecycle environmental benefits linked to 2011 EPEAT purchasing.

120 million EPEAT registered products sold in 2011 will eliminate enough mercury to fill a million fever thermometers.

Over their lifetime, compared to products that do not meet EPEAT criteria, the 120 million EPEAT registered PCs and monitors purchased worldwide in 2011 will:

- **Reduce use of primary materials by 4.4 million metric tons, equivalent to the weight of 14 Empire State Buildings**
- **Reduce use of toxic materials, including mercury, by 1,381 metric tons, equivalent to the weight of 266 elephants**
- **Eliminate use of enough mercury to fill 1,007,761 household mercury fever thermometers**
- **Avoid the disposal of 74,082 metric tons of hazardous waste, equivalent to the weight of 7 Eiffel Towers**
- **Eliminate the equivalent of more than 76,262 US households' annual solid waste—50,976 metric tons**

In addition, due to EPEAT's requirement that registered products meet the latest ENERGY STAR efficiency specifications, these products will consume less energy throughout their useful life, resulting in:

- **Savings of over 12 billion kWh of electricity—enough to power 963,716 US homes for a year**
- **Avoidance of 9 million metric tons of air emissions (including greenhouse gas**

emissions) and over 16 thousand metric tons of water pollutant emissions

- **Reduction of over 2.2 million metric tons of greenhouse gas emissions—equivalent to taking over 1.6 million average US passenger cars off the road for a year**

Conclusion

In its sixth year the EPEAT system continued to motivate, communicate and measure reduction of electronic products' environmental impact. The system's constructive role will increase in 2012–2013, as EPEAT expands to Imaging Equipment and Televisions, adds new geographies and as the existing PC/Display standard is updated to increase the breadth and challenge of its criteria.

For thousands of purchasers who use the system worldwide, EPEAT simply works - enabling them to easily and effectively select products that reduce their organizations' environmental impact. The fact that dozens of manufacturers of all sizes and multiple nationalities redesign products and services to satisfy EPEAT's demanding environmental performance criteria demonstrates that EPEAT is a hugely successful driver of change in the electronics sector. The benefits quantified in this report reflect the concrete outcome of that success.

For more information, visit www.epeat.net.