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**Written Testimony before House Committee on Oversight and Government Reform,
Sub-committee on Management, Organization, and Procurement
Presented by Mr. Jeff Omelchuck, EPEAT Executive Director
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Congressional Action Requested

- EPEAT is a sound green purchasing system for electronics that covers the complete lifecycle of environmental impacts, from toxics to packaging, including design for recycling. EPEAT is applying market-based forces to globally drive the design, manufacturing, and service practices of electronics makers to reduce impacts throughout the lifecycle, including making products more easily and efficiently recycled.
- The Federal Acquisition Regulation (FAR) and two Executive Orders require all agencies of the US Federal government to satisfy 95% of their need for electronics with products that are EPEAT registered. Yet many government contracts present catalogs of products to federal purchasers that include many non-EPEAT registered products and they do not identify which products are EPEAT registered, making it very difficult for purchasers to comply with federal regulation. **We urge Congress to require that government contracts and contractors clearly identify EPEAT registered electronics so that federal purchasers can more easily comply with federal purchasing regulations and Executive Orders.**
- The US government has for many years done a good job of using their own purchasing power to create demand for greener products. But this doesn't go far enough. Promoting green purchasing to the public based on sound lifecycle based programs educates consumers on what they can do and strengthens demand for environmentally preferable products. EPEAT is the program vetted by the US Government and used for its own purchasing of electronics. **EPA should support and promote EPEAT and other sound green purchasing systems to the public.**
- Developing an effective e-waste recycling program in the US is a critical environmental issue. However, recycling is fundamentally an "end of the pipe" activity that recovers perhaps a few percent of the environmental investment in electronic products. To fully address the lifecycle impact of electronics, we must address them earlier in the product lifecycle. By specifying EPEAT, purchasers apply market pressure to change the design, manufacturing, and service practices of electronics makers globally and reduce impacts throughout the lifecycle, including making products more easily and efficiently recycled. **Buying greener electronics as defined by EPEAT should be recognized and supported as a necessary part of any long-term solution to e-waste.**

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EPEAT Overview

- EPEAT is a “green purchasing system” for electronics. It is based on an open consensus-based standard that covers a full spectrum of green attributes, including energy efficiency, reduced toxics, design for recyclability, product longevity and sustainable packaging, and requires manufacturers to have take-back programs for product, batteries, and (optionally) packaging. Products are rated Bronze, Silver or Gold - green, greener, greenest.
- “The EPEAT System” is a growing complex of people and organizations working collaboratively. The “green standards” used in EPEAT are developed by hundreds of independent experts working in a formal public standards development process administered by The Institute for Electrical and Electronic Engineers (IEEE), an ANSI accredited standards body. EPEAT Inc. acts as the hub of the system and manages the web based product registry, product verification, and marketing the system to purchasers.
- EPEAT Inc. is an independent non-profit organization. It is not a program of US EPA or any other government agency. EPEAT now has 3 full time staff, half a dozen part time contractors, and dozens of volunteers who donate their time to promote EPEAT, provide advice, etc.
- EPEAT has received significant support from US EPA throughout its development and start-up but EPEAT Inc. is now supported by fees paid by manufacturers to register their products in the system. EPA is currently providing some support for the development of IEEE “EPEAT green standards” for new products types but is not providing any funding support for operations, consumer outreach, or periodic updating of the product standards.
- ENERGY STAR participated in developing EPEAT, and EPEAT’s primary energy efficiency criterion is compliance with ENERGY STAR. ENERGY STAR is also providing significant staff support for the development of EPEAT energy efficiency specs for printer-type products and TVs.
- EPEAT is used by the US federal government and public agencies in many other countries, states, and cities and private companies globally to specify “green” when they write purchase contracts for IT.
- All agencies of the USG are required by Executive Order and the Federal Acquisition Regulations (FAR) to satisfy 95% of their requirement for electronic products with EPEAT registered products, where an EPEAT standard exists for the product category. Currently that covers desktops, laptops, workstations, thin clients and displays. OMB reports that most agencies’ compliance is good and improving but not perfect.
- The USG’s purchasing power, combined with that of the other global users of EPEAT, has created a \$60 billion market incentive for manufacturers to design and manufacture greener electronics. In combination with other global regulatory and voluntary initiatives, this aggregated purchasing power helps drive environmental innovation in the design, manufacturing, and service

practices of electronics companies globally, from the largest multinational brands to small local brands.

- Green purchasing must be an important component of any solution to the e-waste issue. While recycling electronics responsibly is critical, recycling alone, even where manufacturers are required to participate in or underwrite end of life management, does not effectively change the design of electronics over time to reduce their environmental impact. A green purchasing system creates a market incentive for manufacturers to design and manufacture greener products that can more easily be recycled. **EPEAT is a sound green purchasing system for electronics and should be recognized and supported as part of the long-term solution to e-waste.**
- Public awareness of the environmental issues associated with electronics is growing. However, consumers are not yet generally aware of their role in reducing those impacts. In particular, consumers are not aware of how to identify greener electronics and how purchasing green electronics benefits them, their communities, and their planet.
- EPEAT does not have the resources for broad public promotion and the USG has provided no support for that. ENERGY STAR has a long and successful history of promoting the importance of energy efficiency in the consumer market, due to decades of significant and consistent government funding. EPEAT and ENERGY STAR continue to explore possible collaboration on public promotion.
- It is good public policy, and a very efficient use of public resources, for EPA to support public promotion of green purchasing based on sound programs like EPEAT, the program the government uses for their own purchasing. **EPA should provide EPEAT support for public promotion, development of new standards and updating of existing standards.**
- **EPEAT is a new and innovative model of a powerful way to change materials management and achieve sustainability goals that should be studied and copied in other industries.**

History and Development of EPEAT

The Green Electronics Council is a 501(c)(3) non-profit organization that manages EPEAT, the green purchasing system for electronic products. EPEAT was developed beginning in 2003 by a group of diverse volunteer stakeholders representing all stakeholder constituencies interested in electronics and the environment, including industry/manufacturers, environmental advocates, private and public purchasers of electronics, researchers, recyclers, government staffers and others. The process was facilitated by the non-profit Zero Waste Alliance, supported by a grant from US EPA (more info at <http://www.zerowaste.org/epeat/index.htm>). As the process of criteria development moved forward, the stakeholders decided to formalize the system and criteria they were developing as a public technical standard working through the Institute of Electrical and Electronic Engineers, and in April 2006 they released public standard IEEE 1680. The standard contains both the environmental performance criteria for personal computer products and the design of the EPEAT system itself, through which those criteria are applied to products. The “EPEAT Standard” contains 51 criteria – 23 required and 28 optional - covering the product’s entire life-cycle, from toxics to energy efficiency to design for recyclability to packaging, company performance, and product and battery takeback. Products that meet the 23 required baseline criteria are rated EPEAT Bronze. Products that meet 50% of the additional criteria are recognized as EPEAT Silver and the greenest products, which meet 75% or more of the optional criteria, earn a rating of EPEAT Gold.

The Green Electronics Council was selected by EPEAT’s stakeholder “Implementation Team” to manage the EPEAT system. With support from an EPA start-up grant, in July of 2006 GEC launched the EPEAT registry at www.epeat.net, an on-line searchable database of products that are registered by their manufacturers as meeting each of the 51 criteria. On EPEAT’s launch there were 3 participating manufacturers and 60 products. Today the EPEAT registry has separate product registries for each of 40 countries, with over 40 participating manufacturers, including all the leading global brands and a large number of small brands, and over 1200 products registered in the US alone. EPEAT is now entirely self-supporting, funded by the annual fees that manufacturers pay to register their products.

In December of 2006 President Bush issued Executive Order 13423 requiring all federal agencies to satisfy 95% of their requirements for electronic products with products that are EPEAT registered. A year later the EPEAT purchase requirement was codified into the Federal Acquisition Regulations (FAR SubPart 23.7). In September of 2009 President Obama renewed the USG’s commitment to buy EPEAT registered green electronics in Executive Order 13514. EPEAT registration is now required by purchase contracts from government agencies in Canada, New Zealand, Australia, Mexico, Brazil, Singapore, Thailand, Poland, and Lithuania, and on a large number of contracts from state and municipal agencies, universities and colleges, healthcare facilities and systems and private corporations globally.

In 2009, partially supported by an EPA grant, stakeholders began developing IEEE/EPEAT Standards for Imaging Equipment (printers, fax machines, copiers, etc) and for televisions. They are expected to complete that work in 2010 and those product types should appear on the EPEAT registry in late 2010 or 2011. Standards development processes for servers and then cell phones will follow.

EPEAT is a remarkable example of a public-private partnership that is greening the design of electronics products and related service offerings using market forces rather than regulation.

US Government Use of EPEAT as a Green Purchasing Standard for IT

- **January 2007** Executive Order 13423 was signed by President Bush – This E.O. consolidates and strengthens five executive orders and two memorandums of understanding related to environmental, energy, and transportation performance and accountability, and required all Federal Agencies to purchase 95% or higher EPEAT registered products in all eligible product categories.
- **December 2007** The FAR Council integrated a requirement for use of EPEAT into the Federal Acquisition Regulations (FAR) as an interim rule.
- **February 2009** The FAR interim rule became final.

USG Compliance with Executive Order and FAR Ruling

OMB tracks each agency's compliance with FEC requirements, including the requirement to buy EPEAT registered products. OMB reported to the Office of the Federal Environmental Executive the following.

- **FY 2007 Federal Electronics Challenge Partner EPEAT Purchasing Results**
 - 80% of desktops, laptops and monitors purchased by FEC partners were EPEAT registered
 - Suppliers reported sales of over 1 million EPEAT registered products to the Federal Government
- **FY 2008 FEC Partner EPEAT Purchasing Results**
 - 88% of computer desktops, laptops and monitors purchased or leased by Federal Electronics Challenge participants were EPEAT registered. Of those products, 2% were EPEAT Bronze; 46% were EPEAT Silver, and 40% were EPEAT Gold
- **Federal Purchase Totals EPA estimates total Federal EPEAT purchasing to date (Fall 2009) at ~ 2 million units.**

Results compiled from the 2008 OMB Scorecard and Federal Electronics Challenge reporting provide insight into Federal agencies' successful implementation of the FAR requirement

- Thirteen of 22 Federal Agencies reported meeting or exceeding the goal of 95% or higher EPEAT purchasing in their 2008 IT acquisitions. Individual descriptions of these agencies' successes are listed below.
- The remainder of the Agencies reporting showed significant success – with the average compliance rate between 65-75%

Agencies Meeting FAR EPEAT Requirement in full in FY 2008

Department of Veterans Affairs: 100% of the 290,623 Dell desktops and monitors leased by VA between September 2007 and December 2008 were EPEAT gold or silver products (i.e., 135,598 EPEAT gold desktops; 4,345 EPEAT silver desktops; and 150,680 EPEAT silver monitors).

Department of the Treasury: Of the 64,686 computer desktops, laptops/notebooks, and monitors Treasury purchased in FY 2008, a total of 64,491 (or 99.7%) were EPEAT-registered products. The EPEAT-compliant products were 68.5% Silver and 31.2% Gold.

Department of Energy: DOE purchased more than 50,000 EPEAT registered computers and monitors in FY08, constituting more than 96% of DOE's approximately 52,000 total purchases. All but 4% were Gold (49%), Silver (45%) or Bronze (2%).

Social Security Administration: 100% of the 24,673 desktop computers purchased by SSA were EPEAT-registered Gold. All of the 26,948 LCD monitors purchased were EPEAT-registered, 15,600 were EPEAT-registered Silver, and 11,348 were EPEAT-registered Gold.

Department of the Interior: DOI purchased through their Agency-wide mandatory-use IT Hardware Contract a total of 34,737 desktops, 17,548 laptops, and 4,237 monitors, i.e., a total of 56,522 EPEAT compliant units in FY 2006-2008.

Department of State - All of State's Global Information Technology Modernization Program (GITM) purchases in FY 2008 were EPEAT Silver or Gold products: 7,515 EPEAT-registered Gold desktops and 5,370 EPEAT-registered Silver monitors.

Department of Commerce: DOC purchased 6,618 computers, monitors, and laptops in FY 2008; 6,423 (or 97%) of these were EPEAT-registered.

NASA: In 2008, the Outsourcing Desktop Initiative for NASA (ODIN) program purchased 12,256 EPEAT-registered computers and monitors for NASA personnel.

Tennessee Valley Authority: TVA purchased 2,496 desktop computers, 3,500 monitors, and 1,017 laptops that were EPEAT-registered, for a total of 99.3% EPEAT compliant purchases in FY 2008.

Office of Personnel Management: OPM added EPEAT requirements into the IT Procurement Authorization tracking system (ITPA). All of the CIO-approved purchases were either Gold or Silver rated. A total of 1,541 desktop/laptops and 1,619 LCDs were procured in FY 2008.

General Services Administration: GSA purchased more than 600 EPEAT certified computers in FY08. All computers were 100% compliant with EPEAT purchases.

US Environmental Protection Agency: In 2008, EPA used an IT Blanket Purchase Agreement (BPA) that specifies EPEAT- registered equipment for electronic purchases. EPA estimated that 99% of eligible electronics purchases were EPEAT-registered. In FY09, EPA is standardizing its user-provisioned computer equipment for headquarters employees and providing more than 12,000 EPEAT-registered computers to its staff.

Department of Labor: DOL instituted a new requirement that any non-EPEAT purchase be registered as an exception to purchasing policy. No exemptions were reported in FY 2008, indicating 100% compliance with the EPEAT purchasing requirement.

Commercial and Environmental Impacts of EPEAT

Manufacturers that register their products in EPEAT are required to annually report to GEC the number of EPEAT registered products that they sell. In 2008 EPEAT participating manufacturers sold more than 44 million EPEAT registered products in the US alone. In future years GEC will track and report sales in all 40 supported countries.

By feeding the manufacturer-provided data into an Electronics Environmental Benefits Calculator (EEBC) that was developed by University of Tennessee Center for Clean Products working on an EPA grant, GEC is able estimate the lifecycle environmental benefits that result from the purchase of EPEAT registered green products as compared to the purchase of conventional products.

2008 US purchases of EPEAT registered laptops, desktops, and monitors over conventional products will:

- Reduce use of toxic materials, including mercury, by 1021 metric tons, equivalent to the weight of 510,949 bricks
- Eliminate use of enough mercury to fill 149,685 household fever thermometers
- Preclude the disposal of 43 thousand metric tons of hazardous waste, equivalent to the weight of almost 22 million bricks.
- Eliminate 14,353 Metric Tons of solid waste, equivalent to the amount 7202 U.S. households generate in a year

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

- Savings of over 8.39 billion kWh of electricity — enough to power over 700,000 US homes for a year
- Reduction in use of 14.8 million metric tons of primary materials, equivalent to the weight of more than 114 million refrigerators
- Avoidance of 34.2 million metric tons of air emissions (including greenhouse gas emissions) and over 71,000 metric tons of water pollutant emissions
- Reduction of over 1.57 million metric tons of greenhouse gas emissions — equivalent to taking over one million US passenger cars off the road for a year

In addition to these benefits, reported global sales demonstrate EPEAT's potential for reducing the environmental costs of computing worldwide. Despite only 27% of participating manufacturers reporting their Canadian EPEAT sales and only 20% reporting their Rest of World sales, the estimated benefit of EPEAT sales to these regions is still significant:

- Reduction of 2.8 million metric tons of primary materials
- Elimination of over a million kilograms of toxic materials, including enough mercury to fill 157,311 household fever thermometers
- 16,297 Metric Tons of solid waste eliminated
- Greenhouse gas emissions equivalent to removing 2.3 million US cars from the road for a year

Click here to read the [FULL EPEAT 2008 Environmental Benefits Report](#)

EPA Financial Support of EPEAT

EPA has provided, and continues to provide, both financial and in-kind support to elements of the "EPEAT System", as identified below:

- 2002 – 2006 EPA provided a cooperative agreement in the amount of \$290,000 to the Zero Waste Alliance to support facilitation of the multi-stakeholder consensus process that developed EPEAT and resulted in publication of the IEEE 1680 standard and selection of an organization to manage EPEAT.
- 2006 – 2008 EPA provided a cooperative agreement in the amount of \$420,000 to Green Electronics Council to launch EPEAT as a working commercial system. EPEAT is now financially self-sustaining.
- 2007 EPA provided in-kind support for development of marketing materials.
- 2008 – 2011 EPA provided a grant in the amount of \$419,000 to University of Tennessee Center for Clean Products to support management/facilitation of the IEEE standards process to develop EPEAT green standards for Imaging Equipment (printers, copiers, fax, etc.), televisions, server computers, and cell phones. This work is now in-process.

In addition, 2 half-time EPA employees continue to work significantly with EPEAT, and several EPA, DOE, and other federal employees sit on EPEAT advisory boards or

participate in the standards development process to provide a Federal Government perspective.

EPEAT in the Consumer Market

EPEAT was developed primarily by and for purchasers who buy electronics on purchase contracts, and it has seen astonishingly rapid growth in that market. Manufacturers, retailers, and others now see EPEAT as a credible way to communicate the “greenness” of their products in the consumer market and the use of EPEAT in that market is rapidly growing.

In the institutional market, the attractiveness of a brand is not very important. Professional purchasers rely on specifications and contract language rather than a catchy name and a crisp logo. However, in the consumer market brand image is vitally important. In response to the demand from both environmental and manufacturer stakeholders that EPEAT become a better resource in the consumer market, in early 2009 EPEAT started a project to investigate branding for the consumer market. We have been incredibly lucky to receive the services of one of the world largest and best regarded brand development agencies pro bono to assist us in that effort. We expect to complete that project by YE 2009 with an identity optimized for the consumer electronics market. Our challenge then will be to introduce the new brand to the consumer market.

ENERGY STAR has achieved a remarkable 75% recognition in the consumer market through 20 years of consumer market promotion and brand building, enabled by stable funding provided by a congressional line item. Without the resources to promote EPEAT’s new brand in the market it is unclear how fast consumer recognition will grow.

EPEAT Collaboration with ENERGY STAR

In order to reduce duplication of effort and harmonize with other standards worldwide, EPEAT stakeholders incorporated numerous other environmental standards by reference, including the EU RoHS, EPA’s Plug Into E-cycling Guidelines, and ENERGY STAR. ENERGY STAR staff participated in the development of EPEAT, and stakeholders have relied extensively on ENERGY STAR product definitions, technical approaches, and energy specifications in developing the energy efficiency requirements of the IEEE/EPEAT standards. As a result EPEAT’s primary requirement for energy efficiency is compliance with current ENERGY STAR requirements. Therefore, **all EPEAT registered products meet ENERGY STAR energy specifications.** Stakeholders now developing energy efficiency criteria for EPEAT Imaging Equipment and TV standards continue to use ENERGY STAR specs as the required baseline for those products. In addition, we expect that stakeholders will likely include “more efficient than ENERGY STAR” criteria in those and future standards as part of the optional criteria.

In the past EPEAT has largely relied on ENERGY STAR to verify that ENERGY STAR qualified products actually meet ENERGY STAR criteria. We have discussed with ENERGY

STAR the possibility of cooperating on those verifications and expect that this may come to fruition in late 2009 or 2010.

Finally, EPEAT and ENERGY STAR have discussed several options for working together more closely to promote green electronics in the consumer market. It has been difficult to work out the brand/label issues and we continue to discuss options.