Tracking Activities, Calculating Benefits, and Reporting on Federal Electronics Stewardship

> March 2013 Federal Electronics Challenge Partner Webinar

Disclaimer

- The guidance in this presentation does not supersede any federal agency's policies, procedures, guidance, or requirements with respect to tracking and reporting of electronic stewardship activities
- FEC Partners should always follow the tracking and reporting requirements and guidelines of their federal agency

Required Electronics Stewardship

- Executive Order 13514
 - Section 2(i)
- Executive Order 13423, Implementing Instructions
 - Section 2(h)
- GSA FMR Bulletin B-34
- Agency Strategic Sustainability Performance Plans (SSPP)
- Agency Electronics Stewardship Implementation Plans
- Agency or Facility Environmental Management Systems (EMS)

Reporting Electronics Stewardship

- Agency requirements
 - Office of Management and Budget (OMB) Sustainability and Energy Scorecard
 - Strategic Sustainability Performance Plan
 - Electronics Stewardship Plan
- Facility requirements
 - Environmental Management System (EMS)
- FEC requirements
 - Annual Reporting Form (ARF)
 - Award applications

Requirements for Electronics Acquisition and Procurement

- Executive Order 13514
 - Each agency shall promote electronics stewardship by:
 - Ensuring procurement preference for EPEATregistered electronic products
 - Ensuring the procurement of Energy Star and FEMP designated electronic equipment

The EPEAT® Goal

- Activity:
 - Acquisition of electronic products
- Goal:
 - 95% of all applicable purchases, leases, and seat management provisions must be of Electronic Product Environmental Assessment Tool (EPEAT)-registered equipment
- Applies to:
 - All electronic equipment with an IEEE standard
 - Desktops, notebooks, displays, imaging equipment, televisions

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Tracking the EPEAT Goal

- Add and/or utilize an EPEAT registration data field in your facility's property and/or asset registration, tracking, or management system
- Confirm EPEAT registration status for date of purchase
 - Check the EPEAT registry: <u>http://ww2.epeat.net/searchoptions.aspx</u>

Tracking the EPEAT Goal

- Require vendors to report registration status of all acquisitions
 - Quarterly reports
- See recommended contract language
 - Desktops, notebooks, displays: <u>http://www.epa.gov/fec/resources/epeat_contract.</u> <u>pdf</u>
 - Imaging equipment, televisions: <u>http://www.epa.gov/fec/resources/epeat_contract_ietv.pdf</u>

Reporting the EPEAT Goal

	Number of Units					
	Gold	Silver	Bronze	Unregistered		
Desktops (including Integrated Desktop Computers, Thin Clients, Workstation Desktops)						
Notebooks (including Workstation Notebooks)						
LCD Displays						
CRT Displays						
Printers						
Multifunction devices (MFDs)						
Televisions						
Servers						
Cellular/mobile telephones						
Personal Digital Assistants (PDAs)						

The ENERGY STAR Goal

- Activity:
 - Acquisition of electronic products
- Goal:
 - 100% of all applicable purchases, leases, and seat management provisions must be of ENERGY STAR qualified products
- Applies to:
 - All electronic equipment with an ENERGY STAR specification under the "Computers" and "Electronics" sections

The FEMP Goal

- Activity:
 - Acquisition of electronic products
- Goal:
 - 100% of all applicable purchases, leases, and seat management provisions must be of FEMP designated products and/or products that meet low standby power requirements
- Applies to:
 - All electronic equipment with a FEMP designation under "IT & Office Electronics" and all IT products with Low Standby Power requirements

Tracking the ENERGY STAR and FEMP Goals

- Similar to measuring the EPEAT goal
 - Vendor reporting
 - Property tracking systems
 - Contract requirements
- Confirm ENERGY STAR and FEMP status at date of purchase
 - ENERGY STAR: <u>http://www.energystar.gov/index.cfm?c=products.pr_find_es_product</u>
 <u>s</u>
 - FEMP:

http://www1.eere.energy.gov/femp/technologies/search_standbypo wer_center.aspx

Requirements for Electronics Operation and Maintenance

- Executive Order 13514
 - Each agency shall promote electronics stewardship by:
 - Establishing and implementing policies to enable power management, duplex printing, and other energy-efficient or environmentally preferable features on all eligible agency electronic products

The Power Management Goal

- Activity:
 - Enable power management features
- Goal:
 - 100% enabling of eligible, non-exempt electronic products
- Applies to:
 - Eligible electronic products
 - Desktops, notebooks, displays
 - Non-exempt products

Tracking the Power Management Goal

- Utilize software programs that enable and/or report on power management settings
 - Free and commercial software solutions
- Manually enable and/or check power management settings
 - Record activation and verification activities in a log

Reporting the Power Management Goal

	Number of Products in Use	Number of Exempt Products*	Number of Enabled Products
Desktops			
Notebooks			
LCD Monitors			
CRT Monitors			

* Exemption from power management requirements are provided for equipment running mission critical applications (i.e., security monitoring, air traffic control, uninterruptable laboratory experiments). Exemptions are not provided for the purposes of computer patching or virus scanning.

The Duplexing Goal

- Activity:
 - Enable duplex printing
- Goal:
 - 100% enabling eligible electronic products
- Applies to:
 - Eligible electronic equipment
 - Imaging equipment that prints and is capable of duplexing
 - Desktop and notebook computers that send print jobs to imaging equipment

Tracking the Duplexing Goal

- Manually enable duplex settings
 - Record activation and verification activities in a log
- Utilize software programs that enable and/or report on duplex settings
 - Free and commercial software solutions

Reporting the Duplexing Goal

	Number of Eligible Products	Number of Ineligible Products*	Number of Enabled Products
Computers (including desktops and notebooks)			
Imaging Equipment (including printers, copiers, fax machines, scanners, and multi- function devices)			

*Ineligible products include imaging equipment that can print but do not have duplexing capabilities.

Requirements for Electronics Operation and Maintenance

- Executive Order 13423
 - (Agency heads shall) ensure that the agency:
 - Establishes and implements policies to extend the useful life of agency electronic equipment



The Lifecycle Extension Goal

- Activity:
 - Extend the useful life of electronic equipment
- Goal:
 - Four or more years
- Applies to:
 - All electronic equipment

Tracking the Lifecycle Extension Goal

- Add and/or utilize entry and exit dates in your facility's property and/or asset registration, tracking, or management system
- Estimate lifecycle based on total inventory and annual replacement rates
 - 30% replacement rate each year leads to a three-year lifecycle
- Use technology refresh rates in policies, contracts or leases

Reporting the Lifecycle Extension Goal

	Number of Months					
	Lowest Lifecycle*	Highest Lifecycle*	Average Lifecycle			
Desktops						
Notebooks						
Displays						
Multifunction Devices						
Cellular Phones						

* Information on lowest and highest lifecycle may not be available.

Requirements for Electronics End-of-Life Management

- Executive Order 13514
 - Each agency shall promote electronics stewardship by:
 - Employing environmentally sound practices with respect to the agency's disposition of all agency excess or surplus electronic products



The Environmentally Sound Disposition Goal

- Activity:
 - Electronic product disposition
- Goal:
 - Using environmentally sound management practices for all electronics reuse, donation, sale, and recycling
- Applies to:
 - All electronic equipment

Tracking the Environmentally Sound Disposition Goal

- Add and/or utilize a disposition data field in your facility's property and/or asset registration, tracking, or management system
 - Consider adding or utilizing an internal user count
- Utilize other property disposition reports:
 - General Services Administration (GSA)
 - Defense Logistics Agency (DLA)
 - Computers for Learning (CFL)
- Keep records of due diligence activities

Reporting the Environmentally Sound Disposition Goal

	Number of Units				
	Reused	Recycled	Landfill/Incinerator	Unknown	
Desktops (including Integrated Desktop Computers, Thin Clients, Workstation Desktops)					
Notebooks (including Workstation Notebooks)					
LCD Displays					
CRT Displays					
Printers					
Multifunction devices					
Televisions					
Servers					
Cellular Phones					
Personal Digital Assistants (PDAs)					
	Weight of mixed loads				
Mixed electronic products					

Converting Data into Environmental Benefits

- Electronic Environmental Benefits Calculator
 - <u>http://www.epa.gov/fec/publications.html#calculat</u>
 <u>or</u>
- Using FEC Annual Reporting Form Data to Calculate Environmental Benefits:
 - <u>http://www.epa.gov/fec/resources/arf_eebc.pdf</u>

Purchase One EPEAT Gold Registered LCD

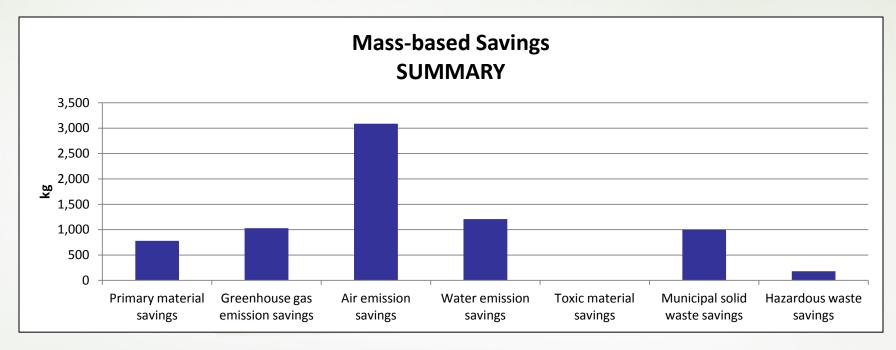
- Tables of results
 - Lifecycle and first year savings
 - Details for product type, and totals
 - Details for product characteristics, and totals

Energy	Primary material	Greenhouse gas emission	Air emission	Water emission		Municipal solid		Cost costings
savings (kWh)	savings (kg)	savings (kg of CE)	savings (kg)	savings (kg)	savings (kg)	(kg)	waste savings (kg)	Cost savings (\$)
73.69	25.35	12.57	49.53	0.16	0.03	0.76	0.46	7.51

Power Manage 100 Desktop Computers

Charts of results

- Mass, energy and cost savings
- Details for product lifecycle phases



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Recycle 1,000 kg of Mixed Electronics

• Equivalencies for results

Equivalency:						
Energy Savings =	electricity to power	2.18	US household(s) in a year			
Greenhouse Gas Reduction* =	removing	0.74	passenger car(s) from the road per year			
Solid Waste Reduction =	solid waste generated by	0.53	US household(s) in a year			
Primary Material Savings* =	the weight of	<0.01	Empire State Buildings			
	the weight of	0.02	18-wheelers (tractor-trailers)			
HW Reduction =	the weight of	<0.01	Eiffel Towers			
	the weight of	1.46	refrigerators			
Toxic Material Reduction:						
all toxics, including Hg=	the weight of	<0.01	elephants			
	the weight of	<0.01	bricks			
Air emissions* =		3.09	metric ton(s) of air emissions			
Water emissions* =		1.21	metric ton(s) of water emissions			
Cost savings =		2,831.93				

Contact Information

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