



Environmentally Preferable Purchasing at the U.S. Department of Energy



Office of Environmental Policy and Assistance (HS-22)



Overview



Environmentally Preferable Purchasing (EPP) at DOE:

- Definition & Program Benefits
- Regulatory Drivers
- Preferred Products
- Reporting Requirements
- Available Resources and Contact Information

DOE Policy

Purchase designated products containing environmentally preferable attributes to the maximum extent practicable when available, affordable and effective



Environmentally Preferable Purchasing



■ Definition:

Acquisition of products or services that have a lesser or reduced effect on human health and the environment when compared with competing products or services that serve the same purpose

■ Benefits:

- Conserves nation's resources
- Meets federal regulations
- Makes good business \$ense
- Conserves DOE's resources
- Meets DOE policy





What is Environmentally Preferable Purchasing at DOE?



- Waste reduction & minimization
- EPP
 - Alternative fuels/vehicles
 - Biobased products
 - Energy and water efficient product
 - Non-ozone depleting substances
 - Recycled products
 - Reduced purchase of toxic/hazardous chemicals
- Electronics stewardship
- Sustainable buildings
- Requirements in DOE O 450.1A, *Environmental Protection Program*



Agency Drivers for Green Product Purchases



- Legislation:
 - Resource Conservation & Recovery Act (RCRA)
 - Clean Air Act Title VI (CAA)
 - Farm Security and Rural Investment Act (FSRIA)
 - Energy Acts of 1992, 2005, 2007

- Executive Orders: 13221, 13423 (replace EO13101, 13123, 13134, 13148, 13149)
 - Specify environmental preferability in environmental management systems
 - Add Electronic Stewardship and Sustainable Design
 - Include standby power devices



Agency Drivers for Green Product Purchases



- Memoranda of Understanding:
 - Federal Electronics Challenge
 - High Performance and Sustainable Buildings
- Federal Acquisition Regulation (FAR)
- DOE Acquisition Regulation (DEAR)
- DOE Orders 450.1A and 430.2B and 413.3A
- DOE Acquisition Guide (Chapter 23)
- See http://www.hss.doe.gov/pp/epp/drivers_and_guidelines.html for information on regulations affecting Green Purchasing



DEAR Flow Down Clause for Sub-Contracts



970.5223-2 Affirmative procurement program.

As prescribed in 48 CFR (DEAR) 970.2304-2, insert the following clause in contracts for the management and operation of DOE facilities, including national laboratories.

AFFIRMATIVE PROCUREMENT PROGRAM (MAR 2003)

(a) In the performance of this contract, the Contractor shall comply with the requirements of Executive Order 13423 ...

(c) The Contractor shall prepare and submit reports,...

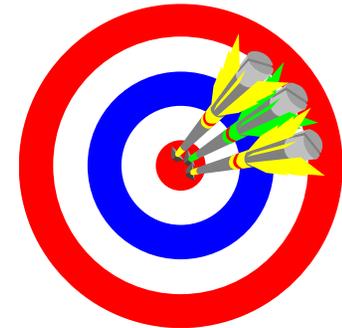
(d) If the Contractor subcontracts, ... the subcontract shall contain a clause substantially the same as this clause. ...Examples of such a subcontract would be operation of the facility supply function, construction or remodeling at the facility, or maintenance of the facility motor vehicle fleet.



Why Does the Government Target Itself for Green Purchasing?



- U.S. consumes approximately 25% of the world's resources with 5% of the world's population
- Federal government is country's largest purchaser of goods and services: \$370 billion per year
- Government creates markets for more environmental products, leading to greater product availability and competitive pricing

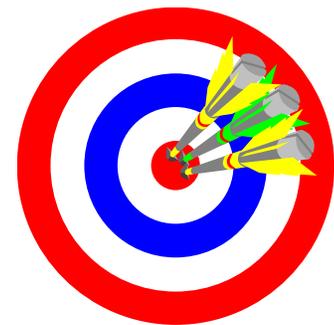




Why Does DOE Target Itself for Green Purchasing?



- FAR 23.703 lists the following environmental objectives:
 - Maximize use of Affirmative Procurement Program (recovered or biobased content designated by the EPA or USDA)
 - Promote energy efficiency (ENERGY STAR®/FEMP)
 - Promote water efficiency (WaterSense labeled products)
 - Eliminate or reduce the generation of hazardous waste
 - Promote the use of nonhazardous and recovered material
 - Realize life-cycle cost savings
 - Promote cost-effective waste reduction
 - Substitute safe alternatives to ozone-depleting substances (FAR 23.803)





Examples of Potential Cost Savings



- Paint (latex) \$16.00/gal
Recycled paint (meets commercial paint specs) \$8.25
Potential Savings for [site] (50% of \$?) \$?/yr
- Toner cartridge (Canon Machines) \$67.74
Remanufactured toner cartridge \$30.67
Potential Savings for [site] (50% of \$?) \$?/yr
- Paper/ream (truck-load) \$3.13
Recycled paper \$2.55
Potential Savings for [site] (20% of \$?) \$?/yr
- Binders (3" White slant "D" /w clear covers) \$11.59
Recycled binders \$6.28
Potential Savings for [site] (50% of \$?) \$?/yr



Principles of Green Purchasing



- Reduce purchases
- Reuse products
- Embed green purchasing in systems
- Use life cycle analyses to select green products with
 - Designated attributes
 - Other environmentally preferable attributes, such as non-toxic





Reduce Purchases



- Is the product needed?
 - Would purchasing a laptop with a docking station reduce the need for staff to have both a desktop and a laptop computer?
 - Would specifying waxless flooring eliminate the cost of wax, polish, wax remover, and staff time?
- Is the product repairable rather than replaceable?
 - Can the carpet seam be mended?
- Is there an alternative?
 - Could the research be conducted electronically rather than with chemicals?
- Would a benign substitute perform as well?
 - Can hazardous cleaning chemicals be replaced with non-hazardous?



Reuse Products



- Is the product available for free through materials exchanges:
 - DOE Complex Wide Materials Exchange
 - Your state's materials exchange
 - Your site's office product/chemical/ other materials exchange





Integrate EPP in Site's EMS



- Set goals and targets for the purchase of environmentally preferable products in your site's Environmental Management System
- Survey your organization's purchasing and resulting waste
- Recognize that products purchased today often become tomorrow's environmental management problems
- Identify mechanisms for buying environmental products
 - o Credit card purchases - Statements of work
 - o Service contracts - Requests for proposal
 - o Electronic catalogs
- Conduct pilot projects
- Evaluate progress and renew efforts according to results
- Communicate benefits



Guidelines for Integrating EPP in Site EMS



- EPA's *Integrating Green Purchasing into Your Environmental Management System* (<http://www.epa.gov/epp/pubs/ems.htm>)
- EPA's *Integrating Environmentally Beneficial Landscaping into Your Environmental Management System* (<http://www.epa.gov/epaoswer/non-hw/green/pubs/green-ems.pdf>)
- DOE Guide 450.1-5, *Implementation Guide for Integrating Pollution Prevention into Environmental Management Systems* (<http://www.directives.doe.gov/pdfs/doe/doetext/neword/450/g4501-5.pdf>)



Integrate EPP in All Purchasing Systems



- Purchase card
- Purchasing request
- Statements of work and requests for proposal
- Contracts and preferred customer agreements
- Template language for a wide variety of products available at:

<http://yosemite.epa.gov/oppt/eppstand2.nsf/Pages/Search.html?Open>





Verify Products and Services Meet the Requirements



- Ask for percentage of biobased/recycled content, not just yes or no
- Ask for demonstration of vendor's products and quality assurance program
- Verify products meet all other national standards (ANSI, ASTM) for commercial products
- Ask for free products to test
- Ask for free training on how to install and use products
- Set up closed loop contracts for carpet, cartridges, ceiling tiles





Use Life Cycle Analyses to Select Green Products by considering



- Raw materials (renewable resource?)
- Manufacturing process (energy/water efficient?)
- Packaging (returnable?)
- Distribution/transportation (locally produced?)
- Operation (energy/water efficient?)
- Maintenance (healthy for staff?)
- Special handling (toxic?)
- Disposal (reusable or at least recyclable?)





Join Forces to Push Prices Down



- Take advantage of Centralized Purchasing – Bulk purchasing prices
- Take advantage of Decentralized Purchasing – Preferred Customer Agreements leverage same advantage
- Compare prices with other DOE sites at quarterly teleconferences or request DOE-HQ conduct price comparison of specific products
- Check out DOE-HQ Blanket Ordering Agreements (<http://www.management.energy.gov/1364.htm>)





Preferred Procurement: Designated Product Categories



- **Affirmative Procurement**
 - Biobased content (Farm Security and Rural Investment Act)
 - Recycled content (Resource Conservation and Recovery Act)
- **Other Preferred Procurement**
 - Alternative fuels/vehicles (Energy Acts of 1992, 2005, 2007)
 - Energy and water efficient (Energy Acts of 1992, 2005, 2007)
 - Electronic Stewardship (EO13423, MOU, DOE O450.1)
 - Non-ozone depleting substances (Clean Air Act Title VI, DOE O450.1)
 - Sustainable buildings (EO13423/Memo of Understanding)
 - Other environmentally preferable (reduced toxic/hazardous chemicals) attributes



Biobased Product Categories Defined by USDA



- adhesives
- carpet/fibers
- cleaners/solvents
- construction materials
- fuel additives
- inks
- landscaping
- lubricants
- packaging
- paint/coatings
- papers
- plastics
- sealants
- sorbents



Biobased Hydraulic Fluid in Stationary Equipment at Princeton Plasma Physics Lab



USDA Designated Biobased Products



- DOE Sites must give preference to purchase of the following effective FY2007:

	Percentage biobased by weight
■ Hydraulic fluids for mobile equipment	44%
■ Lubricants, penetrating	68%
■ Diesel fuel additives	90%
■ Urethane roof coating	20%
■ Water tank coating	59%
■ Bedding, bed linens, towels	12%



**Biobased Hydraulic Fluid in Mobile
Equipment at Brookhaven National
Lab**



USDA Designated Biobased Products

DOE Sites must give preference to purchase
of the following effective May 14, 2009



■ CLEANERS/SOLVENTS

- Adhesive and mastic removers – 58%
- Bath and spa cleaners – 74%
- Carpet and upholstery cleaners
 - General purpose cleaners – 54%
 - Spot removers – 7%
- Floor strippers – 78%
- Glass cleaners – 49%
- Graffiti and grease removers – 34%
- Hand cleaners and sanitizers
 - Hand cleaners – 64%
 - Sanitizers – 73%
- Laundry products
 - General purpose laundry – 34%
 - Pretreatment/spot removers – 46%



Green Cleaning at the Pacific NW National Lab



USDA Designated Biobased Products

DOE Sites must give preference to purchase
of the following effective May 14, 2009



■ LUBRICANTS

- 2-cycle engine oils – 34%
- Firearm lubricants – 49%
- Greases
 - Food grade -42%
 - Multi-purpose – 72%
 - Rail track – 30%
 - Truck – 71%
 - Unspecified – 75%
- Metalworking fluids—straight oils
 - Straight oils – 66%
 - General purpose soluble, semi-synthetic, synthetic – 57%
 - High performance soluble, semi-synthetic, synthetic (**delayed preference compliance date**) – 40%



Biobased
Cutting Fluid at
Princeton
Plasma Physics
Lab



USDA Designated Biobased Products

DOE Sites must give preference to purchase
of the following effective May 14, 2009



■ CONSTRUCTION

- *Carpets - 7%
- *Insulating foam (plastic) for residential and commercial construction – 7%
- *Panels - composite panels
 - Acoustical composite panels – 37%
 - Interior panels – 55%
 - Plastic lumber composite panels – 23%
 - Structural interior panels – 89%
 - Structural wall panels – 94%
- Release fluids - concrete and asphalt – 87%
- May overlap with recycled content requirements. Recycled content requirements have precedence.



Biobased Carpet at Pacific NW National Lab



USDA Designated Biobased Products

DOE Sites must give preference to purchase
of the following effective May 14, 2009



- DISHWARE
 - Cutlery - disposable – 48%
 - *Disposable containers – 72%

- SEALANTS
 - Wood and concrete sealers
 - Membrane concrete sealers – 11%
 - Penetrating liquid sealers – 79%



Biobased Sorbent at Los Alamos National Lab



USDA Designated Biobased Products

DOE Sites must give preference to purchase
of the following effective May 14, 2009



■ OTHER

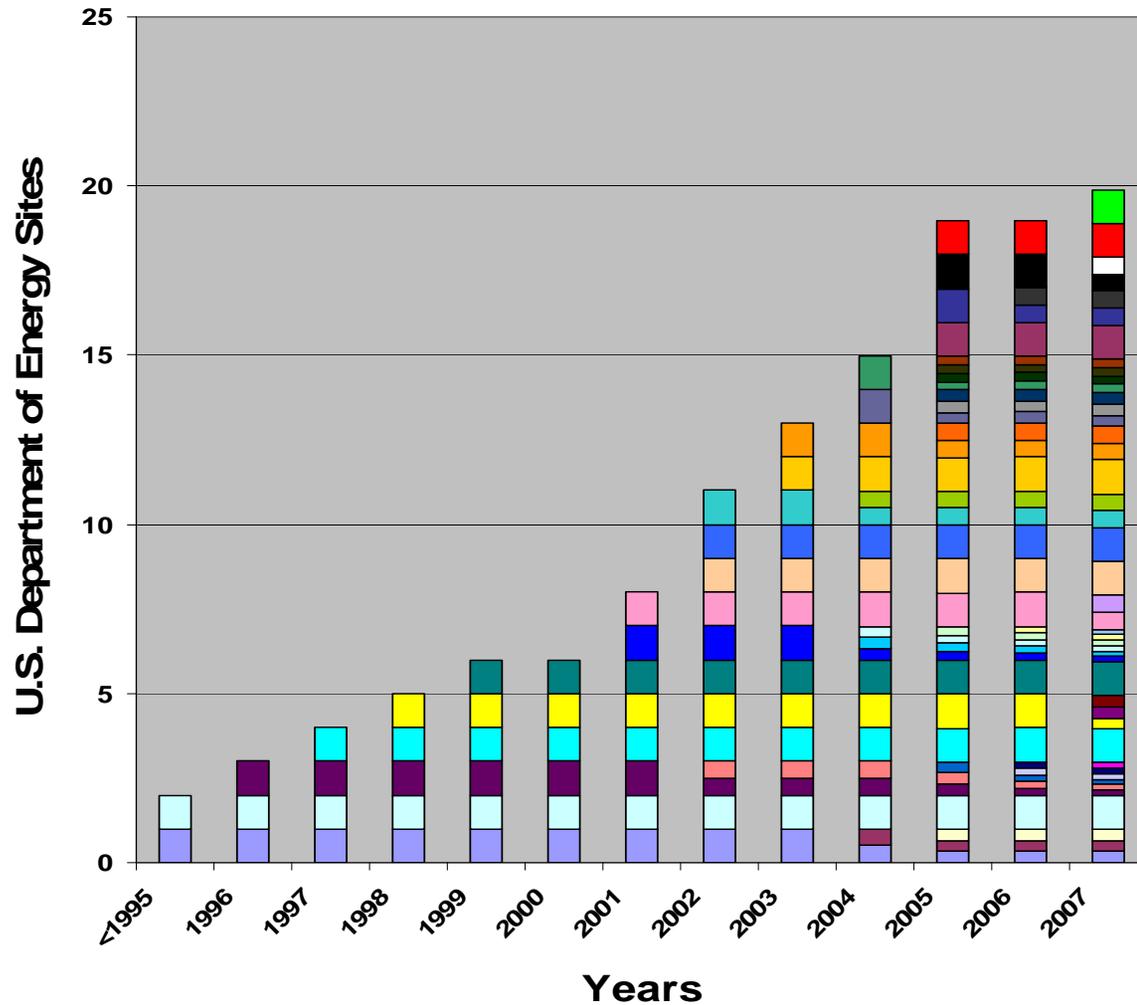
- De-icers - general purpose de-icers – 93%
- Dust suppressants – 85%
- *Fertilizers - 71%
- Films
 - Non-durable – 85%
 - *Semi-durable (plastic bags) – 45%
- Fluid filled transformers
 - Synthetic esterbased transformer fluids (**delayed preference compliance date**) – 66%
 - Vegetable oil-based transformer fluids – 95%
- *Hydraulic fluids - stationary equipment – 44%
- Lip care products – 82%
- *Sorbents – 89% (proposed 52%)

* May overlap with recycled content requirements. Recycled content requirements have precedence.



Biobased
Hydraulic
Fluid at
Princeton
Plasma
Physics Lab

U.S. Department of Energy Use of Biobased Products FY2007 - In Use or Approved



- SPR-hydraulic fluid
- DOE-HQ-window cleaner
- LLNL-ink
- LLNL-biodiesel
- NETL-ethanol
- NETL-cleaners
- Y-12-cleaners
- INL-windshield cleaner
- INL-wheel cleaner
- INL-lubricant
- INL-biodiesel
- PPPL-lubricant
- PPPL-general cleaner
- PPPL-hydraulic fluid
- ORNL-lubricant
- ORNL-ethanol
- FNAL-ethanol
- Pantex-ethanol
- Pantex-biodiesel
- Nevada-biodiesel
- LANL-absorbent
- WAPA-solvent
- WAPA-biodiesel
- PNNL-fiber
- PNNL-ethanol
- PNNL-carpet
- PNNL-detergent
- PNNL-floor care
- PNNL-general cleaner
- SRS-ethanol
- BNL-solvent
- BNL-soy ink
- BNL-hydraulic fluid
- NREL-ethanol
- SNL-adhesive
- SNL-lubricant
- SNL-solvent
- SNL-stripper
- SNL-ethanol
- SNL-hydraulic fluid
- ANL-ethanol
- WAP-roof sealant
- WAP-insulation foam
- WAP-insulation cellulose



EPA Designated Recycled Products



DOE Sites must give preference to purchase of the following:

- **Office:** binders, containers, folders, furniture, paper, toner cartridges.
- **Custodial supplies:** tissue/towels, recycle/trash containers & bags.
- **Construction:** carpet, cement, fiberboard, insulation, paint, roofing.
- **Landscaping:** compost, edging, hoses, lumber, mulch, posts, timbers





EPA Designated Recycled Products



DOE Sites must give preference to purchase of the following:

- **Park/recreation:** benches, fencing, surfaces, tables, tracks
- **Transportation:** barricades, channelizers, cones, delineators, parking stops
- **Vehicular:** coolants, parts, oil, tires
- **Miscellaneous:** awards, bike racks, drums, mats, signs, sorbents, strapping





Exceptions to Purchasing Requirements for Biobased and Recycled Content Products



- Cost, availability, performance = CAP
- No exceptions for paper
- If unavoidable conflict, recycled content takes precedence over biobased content
- Maintain written justification on file for any products not meeting specifications
- Justification template available at <http://www.hss.doe.gov/pp/epp/library/exemjus.doc>



Alternative Fuels and Vehicles



- EPA Act 1992 mandates 75% of a Federal fleet's covered vehicle (under 8,500lb) acquisitions be alternative fuel vehicles (AFV)
- EPA Act 2005 Section 701d requires 95% of dual fuel vehicles be operated on alternative fuels unless waiver approved by DOE
- Energy Security and Independence Act of 2007 prohibits Federal agencies from acquiring a light duty motor vehicle or medium duty passenger vehicle that is not a low greenhouse gas emitting vehicle

**Biodiesel
at Idaho
National
Lab**





Alternative Fuels and Vehicles



- OMB Scorecard requires fewer than 50% of AFVs be waived with 2% reduction or if more than 50% then 10% reduction from previous year beginning FY2009
- EO13423 mandates
 - Reduction in fleet's total consumption of petroleum products by 2% annually through end of fiscal year 2015
 - Increase in total fuel consumption that is non-petroleum-based by 10% annually
 - Use of plug-in hybrid (PIH) vehicles when PIH vehicles are commercially available at a cost reasonably comparable, on the basis of life-cycle cost, to non-PIH vehicles



Energy Efficient Products



- Need to reduce energy intensity 3% annually (6% FY07), 30% FY15 (baseline year FY2003)
- Must specify ENERGY STAR®/FEMP criteria in all contracts per DOE Acquisition Letter 2006-09 and FAR 2006-008
- Must have 80 Plus Power Supply/ES 4.0 to be labeled ENERGY STAR® effective July 2007





Energy Efficient Products



- DOE Sites must give preference to purchase of ENERGY STAR® qualified or FEMP designated products (energystar.gov/fedofficeenergy):
 - **Appliances:** clothes washers, dishwashers, freezers, refrigerators
 - **Commercial Equipment:** boilers, chillers, coolers, heat pumps
 - **Construction:** doors, roofing, windows
 - **Electronic/Office Equipment:** computers, copiers, monitors, printers
 - **Food service equipment:** vending machines
 - **Lighting:** compact fluorescent, exit signs
 - **Plumbing:** faucets, showerheads, urinals, water heaters



Water Efficient Products



- Must give preference to purchase of water efficient products, including those meeting EPA's WaterSense standards (<http://www.epa.gov/watersense/>) per Executive Order 13423
- Types of products and services with WaterSense standards
 - Faucets
 - Irrigation control technologies
 - Irrigation services
 - Toilets





Electronics Stewardship



- Specify in purchasing contracts
 - EPEAT if standard available (95% purchases required)
 - Enabling ENERGY STAR features on 100% of computers and monitors
 - Take back of equipment and packaging
- Have policies to extend useful life
- Ensure all non-usable electronic equipment is reused, donated, sold, or recycled
- Become a Federal Electronics Challenge Partner or implement equivalent electronics stewardship program



Donating Computer Equipment to Schools at Pacific Northwest National Lab



Electronics Stewardship Requirements



Have a plan for all eligible owned or leased electronic equipment to

- Address acquisition, operations/maintenance, end of life
- Be developed and implemented by a team of acquisition, energy, environmental, financial, IT, and property officers, facility managers, and maintenance personnel
- Address how the agency will
 - Acquire 95% of its electronics products as EPEAT registered
 - Ensure ENERGY STAR® features are enabled on 100% of computers and monitors or to the maximum degree based on mission needs
 - Have policies & programs to extend useful life of electronic equipment
 - Ensure all non-usable equipment is reused, donated, sold, or recycled
- Address the reporting procedure





EPEAT

Electronic Product Assessment Tool



- 51 environmental performance criteria: 23 required and 28 optional
- Manufacturers choose tier level for products
 - Bronze, Silver, and Gold
- More than 500 products are currently EPEAT-registered



What is EPEAT[®]?



EPEAT Bronze- Meets the 23 required criteria



EPEAT Silver- Meets 23 required criteria and at least 50% of the optional criteria



EPEAT Gold- Meets 23 required criteria and at least 75% of the optional criteria



10



Current State of EPEAT Certification

May 2009



EPEAT Registered Products Search Tool

Product				Total
	BRONZE	SILVER	GOLD	
Desktops	14	55	97	166
Integrated Systems	0	30	5	35
Monitors	0	391	58	449
Notebooks	15	278	165	458
Workstations	0	12	21	33
Totals	29	766	346	1141

<http://www.epeat.net>



Electronics Stewardship



Examples of a few criteria in EPEAT standard

- Restricts cadmium, hexavalent chromium, lead, mercury
- Specifies less material or post-consumer recycled or biobased plastic content
- Specifies design for longevity, reuse, take back including packaging
- Specifies Energy Star® certified equipment

Examples of how to reduce computer purchases

- Buy laptop with docking station instead of desktop and laptop
- Install a Watt Stopper ®
- Become a Federal Electronics Challenge Partner





Substitutes for Ozone Depleting Substances



- SNAP: Significant New Alternatives Policy
 - Under Section 612(c) of the Clean Air Act, EPA is authorized to identify and publish lists of acceptable and unacceptable substitutes for class I or class II ozone-depleting substances.
- Substitutes for ozone depleting substances relevant to DOE sites:
 - Adhesives, coatings, ink
 - Aerosols
 - Cleaning solvents
 - Fire suppression & explosion protection
 - Refrigeration & air conditioning





Substitutes for Ozone Depleting Substances



- **EO 13423** prohibits the use of Class I and Class II ODS in new equipment (EO 13148 did not).
- **EO 13423** emphasizes need for leak repair of refrigeration and air conditioning systems.
- **EO 13423** implementation instructions have no 12/31/10 Class I ODS procurement phase-out date (as was the case under EO13148), but call for the phase-out of ODS as equipment reaches its expected service life.





Sustainable Buildings



- Have 15% of existing buildings in FY2015 capital asset building inventory meet Guiding Principles as outlined in the *Federal Leadership in High Performance and Sustainable Buildings* Memorandum of Understanding (EO 13423)
- Apply to new construction and renovation above capital asset threshold (EO 13423)
- Reduce fossil-fuel generated energy consumption in new \$2.5M+ construction (compared to 2003) by 55% in 2010, 80% in 2020, and 100% in 2030 (Energy Independence and Security Act of 2007)
- Apply to new, renegotiation, or extension of leases for Federal occupancy (EO 13423)
- Allow no leased space in non-ENERGY STAR buildings by 2010 (Energy Independence and Security Act of 2007)



Sustainable Buildings



Five Guiding Principles:

- Employ integrated design principles
- Optimize energy performance
- Protect and conserve water
- Enhance indoor environmental quality
- Reduce environmental impact of materials
 - Biobased construction materials
 - Forest Stewardship Certified wood
 - Non-ozone depleting substances
 - Recycled construction materials
 - Other environmentally preferable construction materials, such as those with low-to-no hazardous ingredients



Sustainable Building Materials



- Biobased Insulation (spray foam)
 - Made from soy
 - Density 0.5 lb/cu ft (ASTM D1622)
 - Compressive strength 20-30 psi (ASTM D1621)
 - Flame spread <20 (ASTM E84)
 - Smoke development <400 (ASTM D2863)
 - Contains/emits no VOCs, CFCs, formaldehyde, or HCFCs
 - Passed UPITT Test for off gassing toxins when burned
 - Approved for use in DOE Weatherization Assistance Program





Sustainable Building Materials



■ Biobased Roofing sealant

- Made from soy
- ENERGY STAR® approved
- Single-coat application
- Exceeds UL
- Class A Flame Ratings
- 100% Resistant to mold, algae, bacteria (ASTM D3273)
- 10-year labor and material warranty
- Approved for use in DOE Weatherization Assistance Program



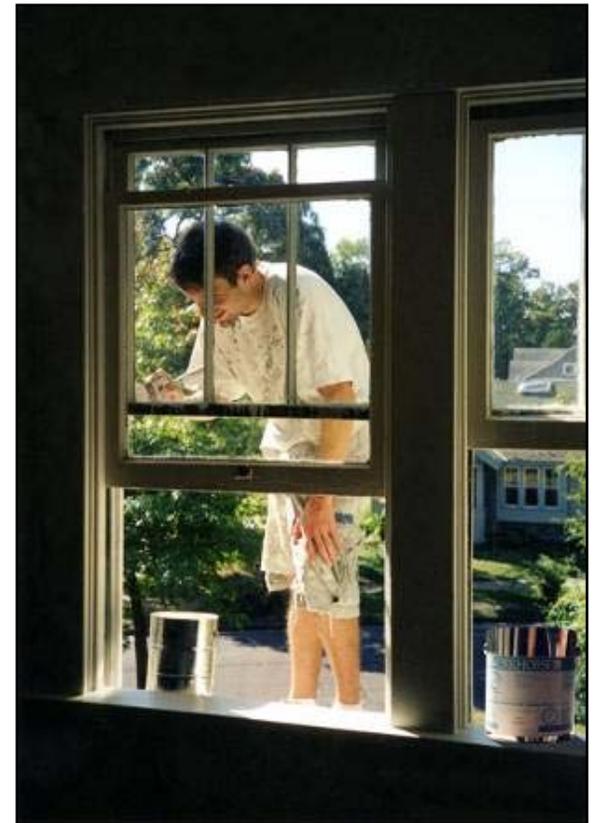


Sustainable Building Materials



■ Recycled Paint

- Tested at PNNL and ANL
- Applies better than most high end paint
- Coverage equal to any high end paint
- Quality control to avoid volatile organic compounds and other hazardous ingredients + batch testing
- Mix to match
- Available thru Sherwin Williams
- GSA contract GS06F0012M
- One half the price (\$9/gal)





Sustainable Building Materials



- Biobased and Recycled Carpet
 - Tested at PNNL
 - Backing: 55% biobased content by weight (polyurethane from soybeans)
 - Secondary Backing: 100% post-consumer recycled content
 - Facing: 25% recycled content and recyclable into carpet fiber
 - Price: Comparable to other high quality commercial carpets
 - Qualifies for LEED (Green Building Rating System)
 - Meets CRI requirements for volatile organic compounds (no vinyl)





Sustainable Building Materials



■ Water Free Urinals

- Tested at PNNL
- Trap/sealant/gravity instead of flushing water
- Complies with ADA, ANSI Z124.9, CSA®, UPC®, IAPMO C-3346; ICC-ES #2324
- Avg water reduction: 40,000 gallons/urinal/yr
- Calculator:
http://www.falconwaterfree.com/savings_calculator.asp

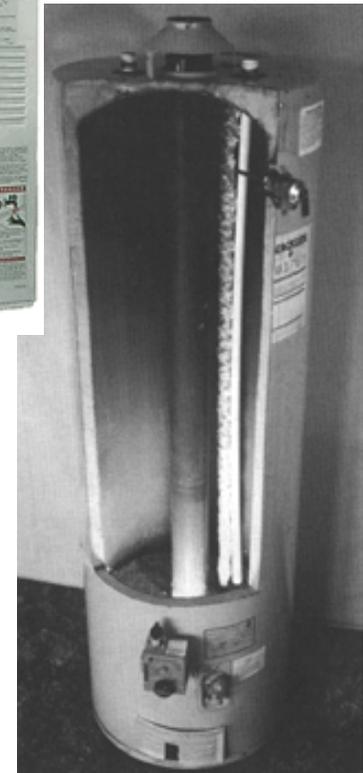




Sustainable Building Materials



- Water Heaters – Quick Flash and ENERGY STAR
 - Conserve Energy
 - Lower temperature – maximum 120F
 - Insulate pipes with special foam
 - Install solar panels to heat water
 - Conserve water
 - Install low-flow shower heads, faucets, toilets (save 50%)
 - Fix leaks (save 6-10 gallons/day)
 - Don't run water while washing hands, etc.





Sustainable Maintenance Materials



■ Lighting

- Incandescent (75W) ~13 lpw
- Fluorescent (T8)* ~83 lpw
- HID (Metal Halide) ~100 lpw
- SSL (White LED) ~45 lpw
 - 1st products meeting standard available after Sep 30, 2008 (LLF good potential)
 - ENERGY STAR criteria for LEDs

<http://www.netl.doe.gov/ssl/>

***California has specifications for low mercury lights**





Sustainable Maintenance Materials



■ Biobased Cleaners

- Readily available - see Green Seal list
<http://www.greenseal.org/findaproduct/cleaners.cfm>
- Maximizes worker protection
- Can reduce number of cleaning products
- Reduces chemical inventory
- Reduces waste handling, shipping, inventory costs
- Typically lowers purchasing cost



**Biobased Cleaning Products
at Pacific Northwest
National Lab**



Designated Products Tool



Excel file compiles all designated products into purchasing categories for quick reference

http://www.fedcenter.gov/Documents/index.cfm?id=11767&pge_prg_id=20257

Building Construction	Roadway Construction
Building Finishes	Traffic Control
Building Interior	Vehicle Products
Cafeteria Services	Lube, Oil, Hydraulic, Grease
Cleaning Products	Non-Paper Office Products
Refrigeration	Office Electronics
Renewable Energy	Paper Office Products
Landscaping	Printing
Park and Recreation	Miscellaneous



Examples of Products with Multiple Attributes



- Carpet (biobased* and recycled*)
- Insulation (biobased and recycled)
- Landscaping materials (biobased* and recycled*)
- Lubricants (biobased and recycled)
- Paints/coatings (biobased,* ENERGY STAR®,* recycled)
- Roofing (biobased, ENERGY STAR®, recycled)
- * = quality commercial products with varying attributes available in a single product





Overview of Annual Green Purchasing Reporting Requirements



- EPP/P2 Data Website (required by HSS)
<http://www.hss.doe.gov/pp/dataentry.html>
- Energy Website (required by EE)
http://www1.eere.energy.gov/femp/about/reporting_guidance.html
- Federal Automotive Statistical Tool (FAST) (required by EE)
<https://fastweb.inel.gov>
- Environmental Management System Implementation
<https://www.epa.gov/ems/>
- Federal Buildings Database (required by EE)
www.eere.energy.gov/femp/highperformance/index.cfm



OMB Scorecard Reports



- Environmental Scorecard – Green Purchasing (HSS Coordinating)
- Energy and Water Scorecard – Energy Efficiency Purchases (EE Coordinating)
- Transportation Scorecard – Fleet Efficiency Purchases (EE Coordinating)



Why Do We Have to Report Our Successes?



- Congress requires reporting of Comprehensive Procurement Guidelines designated recycled content items
- Report to the President biannually
- DOE contracts require reporting of most items



DOE Annual P2 Data Questionnaire Affecting EPP



Input required for Pollution Prevention and DOE Order 450.1A reporting:

- Established EPP purchasing objectives and measurable targets in the Environmental Management System
- Identified sources needed to implement EPP goal and site-specific objectives in budget
- Participated in voluntary partnerships, such as WasteWi\$e and Federal Electronics Challenge
- Received EPP awards



DOE EPP Annual Data Questionnaire



- Electronics Stewardship – EPEAT registered products
- Biobased Content Products – USDA designated products
- Recycled Content Products – EPA designated products



DOE EPP Annual Data Questionnaire



- **Electronics Stewardship**
Total dollar value spent on EPEAT-registered
 - Desktop computers
 - Monitors
 - Laptops/Notebooks



DOE EPP Annual Data Questionnaire



- Biobased Content
 - Type of product
 - Purchased designated product without biobased content
 - Dollar total spent on each type of designated biobased product
 - Supplier of each type of product (GSA, DLA, commercial source)



DOE EPP Annual Data Questionnaire



- Recycled Content
 - Total dollar value spent on designated products
 - Both with and without specified recycled content
 - With recycled content
 - Without recycled content but are justified exceptions
 - Total % of success
 - Without justified exceptions (recycled dollar value divided by the total dollar value)
 - With justified exceptions (recycled dollar value + justified exceptions value divided by total dollar value)
 - Reasons for inability to purchase recycled
 - Plan of action to overcome obstacles



FY2007 Data Capturing Comparing Comparable Sites



Reporting Results	Site A (# Emplys)	Site B (# Emplys)	Site C (# Emplys)	Site D (# Emplys)
Recycled Totals	\$	\$	\$	\$
Construction	\$	\$	\$	\$
Landscaping	\$	\$	\$	\$
Non-Paper Office	\$	\$	\$	\$
Paper	\$	\$	\$	\$
Park & Recreation	\$	\$	\$	\$
Transportation	\$	\$	\$	\$
Vehicular	\$	\$	\$	\$
Miscellaneous	\$	\$	\$	\$



Identifying High Priority Categories



Of the designated products data captured:

- Construction materials: \$?
 - [highest expenditure item]:\$?
- Non-office paper: \$?
 - Toner cartridges: \$?
 - Office furniture: \$?
- Paper products: \$?
 - Uncoated printing paper \$?
- Biobased?
- Electronics?



Site FY2007 Data Capturing Designated Recycled Construction Materials



Construction Material	Amount Spent
Recycled + CAP + Unjustified Totals ...%	\$.....
Construction Materials Total -	
Blocks patio	
Carpet	
Carpet cushion	
Cement/Concrete	
Fiberboard structural	
Fill flowable	
Insulation	

Construction Material	Amount spent
Paint	
Paperboard laminated NA	
Partitions shower	
Pipe nonpressure	
Ramps threshold	
Roofing	
RR crossing surface	
Tiles floor	



Systems to Gather Statistics



- Build capability into purchasing software/system
- Build requirement into service and supplier contracts





Build Capability into Purchasing Software/System



- Supplies quantity and dollar volume of designated products
- Supplies reasons for not purchasing: cost, availability, performance
- Identifies purchasing problems
- Does NOT verify validity of input – garbage in/garbage out principle applies





Build Requirement into Service and Supplier Contracts/Purchasing Agreements



- Supplies valid statistics
- Does NOT supply statistics for all purchases—those without contracts or purchasing agreements
- Does NOT always identify purchasing problems





Reviews and Audits



- Audit of site EPP Program part of Environmental Management System audit
- EPA RCRA Section 6002 compliance inspections
- Section 3 of EO 13423 directs agency heads to establish a program for environmental compliance review and audit.
 - internal review and part of the continual improvement process of EMS of which the Environmentally Preferable Purchasing Program is a part per EO 13423.





Celebrate Successes with Pats on the Back and Awards



- Establish Green Purchaser Pat-on-the-Back Awards
- Publish and advertise success stories
- Nominate your staff for DOE-HQ awards and compete for White House Closing the Circle Awards





Resources for Green Product Information



- DOE Environmentally Preferable Purchasing <http://www.hss.doe.gov/pp/epp/>
- Alternative Fuels/Vehicles <http://www1.eere.energy.gov/vehiclesandfuels/epact/federal/>
- Biobased Products <http://www.biobased.oce.usda.gov/fb4p/Catalog.aspx>
- Electronic Equipment <http://www.epeat.net/>
- Energy/Water Efficient Product <http://www1.eere.energy.gov/femp/procurement/>
<http://www1.eere.energy.gov/femp/water/index.html>
- Non-Ozone Depleting Substances <http://www.epa.gov/docs/ozone/snap/>
- Recycled Products <http://www.epa.gov/epaoswer/non-hw/procure/products.htm>
- Sustainable Buildings <http://www.wbdg.org/>



Resources for Green Product Information (continued)



- DOE Quarterly EPP Teleconferences
4th Thursdays: Jan, Apr, Jul, Oct:
http://www.hss.doe.gov/pp/epp/teleconferences_tools.html
- Fed Center
<http://www.fedcenter.gov/programs/buygreen/>
- Office of the Federal Environmental Executive
<http://www.ofee.gov>
- Designated Products Tool
http://www.fedcenter.gov/Documents/index.cfm?id=11767&pge_prg_id=20257
- EPA EPP Database
<http://yosemite.epa.gov/oppt/eppstand2.nsf/Pages/Search.html?Open>
- DOE-HQ Blanket Ordering Agreements
<http://www.management.energy.gov/1364.htm>
- DOE-HQ Bulk Purchasing Tool for ENERGY STAR Equipment
<http://www.quantityquotes.net/default.aspx>



Contacts for EPP Information



- **Procurement** - Richard Langston (Policy) / Denise Clarke (P-Card), MA-61, 202-287-1339 / 202-287-1748
- **Environmentally Preferable Purchasing, Biobased and Recycled Products** - Don Lentzen HS-22, 202-586-7428
- **Alternative Fuels/Vehicles** – BJ Morris / Helene Mattiello, NNSA/DOE Fleets, 202-586-6312 / 202-287-1593
- **Construction Materials and Equipment** – Matt Gray, FEMP, 202-586-0067
- **Electronic Stewardship** - Jeff Eagan, HS-22, 202-586-4598
- **Energy/Water Efficient Products** - Cyrus Nasser, FEMP, 202-586-9138
- **Non-Ozone Depleting Substances** – Josh Silverman, HS-22, 202-586-6535
- **Hotline Technical Support** – Sandra Cannon, 509-529-1535