

Environmental Products that Save Money

Buy Green to \$ave Money

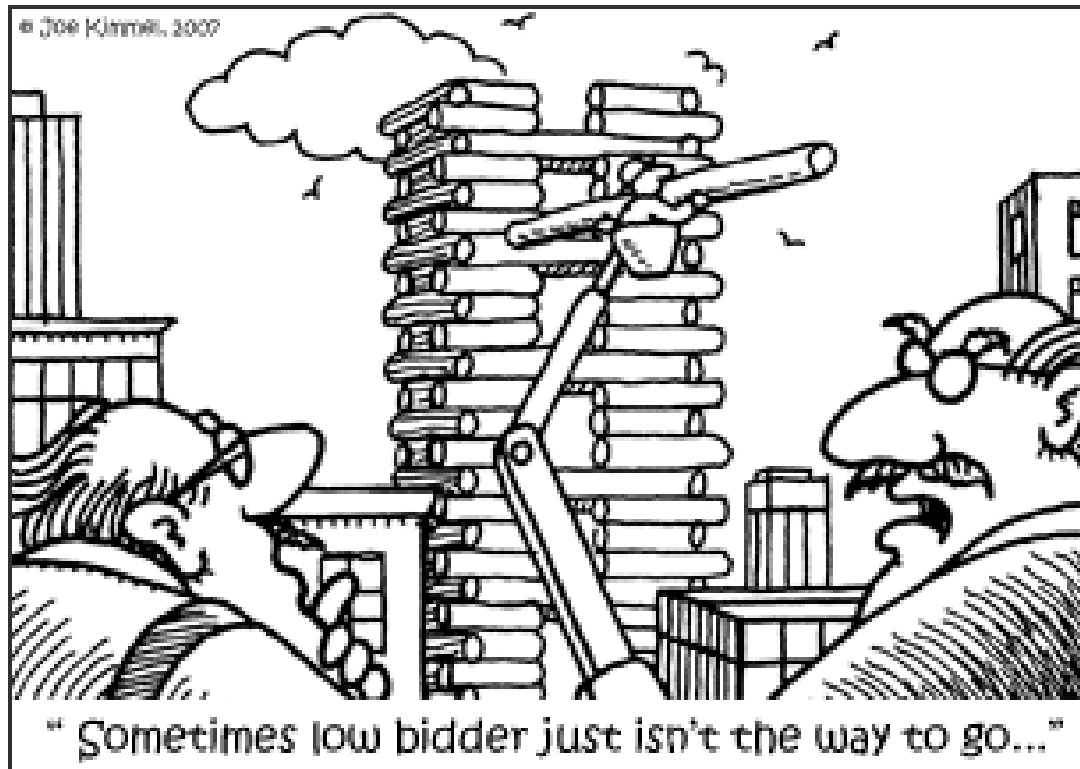
Boston, MA April 6, 2011



Alicia Culver
Responsible Purchasing Network
www.responsiblepurchasing.org



Low Bidder Vs Best Value



EPP Simplified

EPP =
Environment +
Price +
Performance



How “Green” Products Can Save Money



- **Lower upfront costs**
- **Conserve energy or water**
- **Reduce paper or fuel use**
- **Lower maintenance costs**
- **Reduce replacement costs**
- **Avoid disposal/cleanup costs**
- **Support the local/regional economy**
- **Offset environmental and health program costs**

EPP is “Best Value” Procurement

Considers overall (life-cycle) costs of ownership:

- **Initial price**
- **Utility costs (energy, water)**
- **Maintenance costs (labor and replacement)**
- **End-of-life costs (disposal and recycling)**



King County, WA “Green” Purchases and Savings

King County
Environmental Purchasing
2008 Annual Report




King County
Department of Economic Services
Public and Business Development
Environmental Purchasing Program

Commodity	2008 Savings
Recycled Aggregates	\$300,000
Remanufactured Toner Cartridges	\$250,000
Tire Retreading	\$250,000
Recycled Antifreeze	\$27,000
Recycled Plastic Lumber	\$10,000
TOTAL	\$837,000

Massachusetts Savings from Green Purchasing



FY2010 Summary: CFL and Remanufactured Toner Cartridge Purchases

Cost Savings

Energy cost savings from CFLs	\$1,878,945
Labor cost savings from CFLs	\$764,521
Cost savings from reman. cartridges	\$621,429*
TOTAL COST SAVINGS	\$3,264,895

* Cartridge estimate based on FY09 purchases



Toner and Ink Cartridges

- **Remanufactured toner and ink cartridges cost 30-60% less per copy than “virgin” cartridges**
 - **Need strict performance standards**
 - **Can support local jobs**
- **Requiring vendors to take-back empties can reduce disposal costs (& result in rebates)**
- **XL toner and ink cartridges reduce replacement costs**



Recycled Paint



CASE STUDY

**Portland, OR found locally-made
100% recycled paint:**

- **costs 75% less than virgin latex paint**
- **meets high performance standards**
- **can be tinted to match specifications**

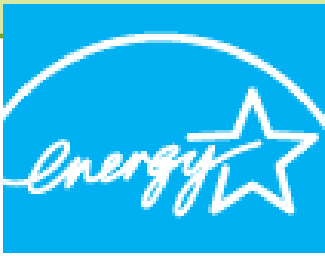
Re-refined Motor Oil



CASE STUDIES

Santa Monica, CA purchases re-refined motor oil for all vehicles maintained by its Fleet Maintenance Division; costs 25% less than comparable “virgin” motor oil

Santa Clara County, CA is saving ~\$40,000 annually by procuring re-refined motor oil using a nearby City contract



ENERGY STAR

Appliances: washers, dryers, dishwashers, refrigerators

Heating and cooling equipment: furnaces, boilers, air conditioners, fans, water heaters

Lighting equipment: CFLs, LED fixtures and lamps

Office equipment: computer equipment, copiers, printers, power supplies, mail machines

Electronics: telephones, TVs, DVD players, etc.

Miscellaneous: food service equipment, water coolers, vending machines, battery charging systems, windows and roofing products



Energy-Efficient Equipment



CASE STUDY




Chicago, IL public housing authority cut its annual electricity bill \$500,000 by purchasing 10,000 ENERGY STAR-rated refrigerators

EPEAT

Electronic Products Environmental Assessment Tool

Estimated Environmental Benefits from 2007 EPEAT Purchasing

	Reductions	Equivalents
Electricity	42.2 Billion kWh	Annual consumption of 3,723,185 US households
Primary Materials	75.5 million metric tons	Weight of 585,092,145 refrigerators
Air Emissions	174,393,139,000 kg	174,393,139 metric tons
Water Emissions	364,789,000 kg	364,789 metric tons
Greenhouse Gas Emissions	3.31 million metric tons	Removing 2,630,619 US cars from the road for a year
Toxic Materials	3220 metric tons	Weight of 1,609,545 bricks The amount of mercury in 482,381 fever thermometers
Hazardous Waste	124,000 metric tons	Weight of 61,831,455 bricks
Cost Savings	\$3,660,553,851	

	 ™	 ™	 ™	Total
Product	BRONZE	SILVER	GOLD	
Desktops	<u>5</u>	<u>47</u>	<u>69</u>	<u>121</u>
Integrated Systems	0	<u>24</u>	0	<u>24</u>
Monitors	<u>6</u>	<u>365</u>	<u>30</u>	<u>401</u>
Notebooks	0	<u>334</u>	<u>46</u>	<u>380</u>
Totals	11	770	145	926

Environmental specifications for computers:

- ▶ 23 required and 28 optional criteria across 8 categories
 - ▶ Meet standards for ENERGY STAR (required)
 - ▶ Renewable energy accessory available (optional)

Computer Equipment

According to the EPA, more than 11 billion kWh, the equivalent of \$935 million, could be saved each year if users of the 55 million office computers in the U.S. used the power management features on their computers effectively.



Ancillary Equipment



Powered by an
ENERGY STAR®
qualified adapter
for a better
environment

Power adaptors use >2% of US electricity

- **ENERGY STAR-rated (80 PLUS) adapters**
~30% more efficient than conventional models
- ~\$3 billion and 24 million tons of CO₂ emissions per year could be saved



“Smart” Power Strips Efficient

- **Detect whether user is present**
- **Eliminate phantom loads by cutting power to outlet**



Photo by Jon Manzo

LED Street Lights



Life-cycle cost savings compared to high-pressure sodium (HPS)/metal halide (MH)

- **Costs dropping ~20% annually (DOE)**
- **35%-75% energy savings (more with dimming)**
- **2-4X longer life; non-cycling**
(lower replacement/labor costs)
- **No mercury disposal or UV exposure**
- **Improved visibility, security**
- **Can power with solar/wind (no utility cuts)**



Water Conserving Products

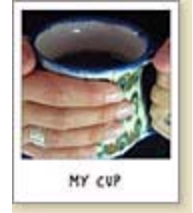
“The nation’s water and energy use are inextricably entwined. Energy is needed to pump, treat, transport, heat, cool, and recycle water.”

(California Energy Commission)

- **Running hot water for 5 minutes = 60 watt bulb for 14 hours**
- **Water conservation saves energy at ~60% of cost of energy conservation**



Purchase for Zero Waste



- **Avoid single-use items (e.g., disposable cutlery, paper towels, food service ware)**
- **Invest in water filters instead of bottled water**
- **Replace paper towels with hand dryers**
- **Specify recyclable/compostable**
- **Choose reusable items**
- **Buy recycled-content products**



Duplexing Printers & Copiers

Save money on paper, postage and document storage



CASE STUDY

- **Columbia University saved \$105,000 in one year by defaulting to 2-sided printing in its computer center**
- **Vendors must ship equipment with duplex default on and train employees**

Rocket Air Blowers



- Just uses air.
- You just need one.
- \$9.95

Replace Gas Dusters



- Contains Refrigerant:
1,1-Difluoroethane =
GHG 120X > CO2
- Some brands contain HFC 134a
1,1,1,2-Tetrafluoroethane
= **GHG 1300X > CO2**
\$5-\$15/can; you need many

Batteries



- **Factor in battery costs when choosing equipment**
- **Pilot test/utilize rechargeable batteries (particularly hybrid/slow drain rechargables)**
- **Consider “long-life single-use batteries**
- **Ask vendors to offer battery recycling services**



Bottle-less Cooler Systems

- **Reduce monthly water costs 30% to 70% versus bottled water delivery**



- **Saves time lost to changing bottles, especially in larger offices.**



- **Eliminates chance of employees hurting their back while lifting heavy water bottles**

RPN has bottled water alternatives guide & calculator

Green Cleaning

CASE STUDY

Minneapolis, MN conducted 3-year “green” cleaning pilot test and reported:

- **Cost savings moving to metered dilution system away from hand mixing**
- **Fewer sick days for custodial staff**
- **Reduced waste and other liabilities**
- **Improved indoor air quality (IAQ)**



Green Cleaning

CASE STUDY

Harvard Medical School switched to “green” cleaners and reported:



“... a decrease in cleaning product costs due to a consolidation of the types of chemicals used under the green cleaning program [after] downsizing from over 25 different kinds of non-green products to only seven different kinds of green cleaning products.”

Source: Stephen Ashkin, The Business of Green Cleaning



Microfiber Mops

- **Cost-effective (life-cycle basis)**
- **Reduce chemical use (~1/2)**
- **Minimize water use (up to 95%)**
- **Prevent injuries (chemical exposure, back strain, accidents)**
- **Improve performance (reduce dirt, avoid cross-contamination)**

www.sustainablehospitals.org/PDF/tenreasonsmop.pdf

www.epa.gov/region09/waste/p2/projects/hospital/mops.pdf





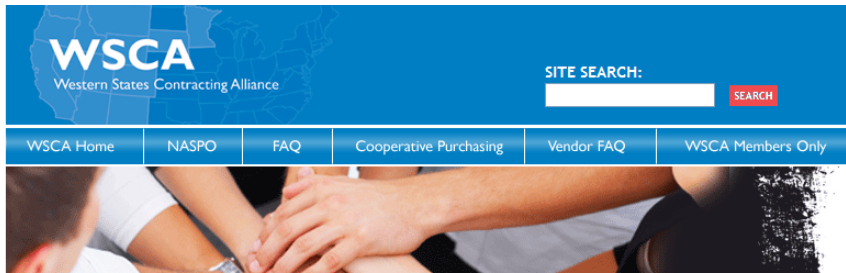
Hand Soap



- **Foaming hand soap reduces soap and water usage compared to liquid hand soap**
- **Push-operated hand soap dispensers eliminate battery purchase, installation and disposal costs associated with hands-free dispensers**



Cost-Saving Strategy: Cooperative Purchasing



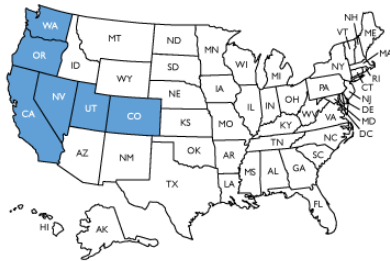
CURRENT COOPERATIVE CONTRACTS

JANITORIAL SUPPLIES AND INDUSTRIAL PAPER (WSCA-OR)

W20-2007

BASIC CONTACT INFORMATION - LEAD STATE

PARTICIPATING STATES:



Affiliation: WSCA
Lead State: Oregon
Lead State Contract Number: 102-5031-5
Contact person: Pam Johnson
Phone: (503) 378-4731
Fax: (503) 373-1626
Email: pam.johnson@state.or.us

[LINK TO LEAD STATE WEBSITE](#)

U.S. COMMUNITIES
Going Green Program

Public Services Alliance
 California Communities
 Canadian Communities
 Compliance Services
 U.S. Communities

SEARCH Green Products GO

Upcoming Events
About Our Suppliers
Resources
Trainings/Seminars
Best Practices
Certifications & Standards
New Supplier Inquiry

U.S. Communities Going Green Program is the one-stop source for public agency access to a broad line of responsible purchasing products, services and resources. In addition to our comprehensive contracts that offer eco-friendly products, agencies will find a wealth of valuable information and resources that will help lower your environmental impact within your community and will assist you in making educated decisions about the products your agency purchases.

MAKING ENVIRONMENTAL PURCHASING SIMPLER!

Zep
 VENUE
 Office DEPOT
 HAWORTH

Think of US first for PROVIDING SOLUTIONS

U.S. Communities SOLUTIONS

Founding Co-sponsors: FSP, NACB, NIGP

OFFERING THOUSANDS OF "GREEN" BRANDS IN THE FOLLOWING CATEGORIES:

School Supplies	Education Furniture
Office Supplies	Janitorial Supplies
Technology Products	Park & Playground
Electrical & Data Communications	Maintenance, Repair & Operating Supplies
Technology Solutions	Auto Parts & Accessories
Office Machines	Roofing Supplies & Services
Office Furniture	Synthetic Turf & Athletic Surfaces

WHAT'S HOT! WHAT'S NEW!

RPN U.S. Communities & Responsible Purchasing Network Partner to Promote Green Products on Cooperative Contracts.
 What do you get when you combine aggregated influences of over 87,000 buyers with Responsible Purchasing Network's green purchasing programs? A powerful new resource for finding and buying credible green products through competitively solicited contracts. [Full Details...](#)

Cost-saving Strategy: Reduce Packaging Costs

- **Avoid overnight shipping, whenever possible**
- **Encourage vendors to offer reusable and recyclable packaging**
- **Ask vendors to offer incentives for reducing the frequency of deliveries**





that was easy:

Congratulations!

Your efficient ordering has allowed The City of Santa Rosa to significantly reduce CO₂, waste and water use!

Small Order Reduction: \$50 cap Environmental Impact 2009	
<i>Three-month pilot study</i>	
74	Orders Eliminated
193	Miles not driven
19	Gallons of fuel saved
255	Boxes not used
408	pounds (boxes)
0.2	tons (boxes)
255	Shipping labels
2	pounds of pulp
385	Packing slip pages
429	Air pillows
4	pounds of air pillows
5	Trees saved
393	pounds of waste avoided
1064	pounds eCO ₂ avoided
2407	gallons water saved

Cost-Saving Strategy: Require Recycling

- **Saves time/money by shifting responsibility for recycling to manufacturers and distributors**
- **Stimulates infrastructure for efficient recycling**
- **Encourages manufacturers to redesign their products to be more durable, more easily recyclable, and less toxic**



Cost-saving Strategy: Direct Suppliers to...

- **Add “green” products to their “core” list**
- **Periodically report \$ amount of compliant/
non-compliant purchases sold on your contract**
- **Conduct training and outreach**



Buy Local



- **Support local and regional manufacturers and distributors**
 - ✓ **Reduces transportation impacts (and costs)**
 - ✓ **Contributes to local tax base**
- **Give preference to locally-certified Green Businesses**

Palo Alto office supplies bid solicitation gives “points” for copy paper made \leq 1000 miles

Local Food Purchasing



CASE STUDY:

Portland, OR bought 45% local produce for county jail at no extra cost

- ✓ **Sustainable food procurement policies target commodity and service contracts, caterers, concessions, vending machines**
- ✓ **Give preference to food that is locally grown; (as well as organic/sustainable fairly traded)**
- ✓ **Food industry in top 3 for overall environmental impacts**

How to Pay for Sustainable Products

- **Many “green” products less expensive upfront or competitively priced**
- **Life-cycle budgeting**
- **Reduce consumption**
- **Revolving loans**
- **Grants**
- **Utility rebates**
- **Energy conservation service agreements**



Questions? Comments?

