

Buying Smart: **Sustainable Purchasing** **Best Practices**

City of West Sacramento
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My Background/Expertise



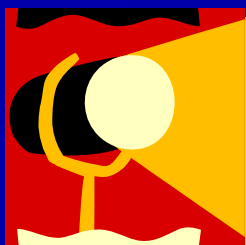
Green Purchasing Institute
(Executive Director)

Product Policy Institute
(Board Member)



CA Product Stewardship Council
(Consultant under CIWMB grant)





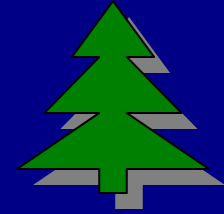
Overview

- **What is “sustainable” purchasing and what are the benefits?**
- **What types of sustainable products can local governments purchase to help them reach their environmental goals AND save money?**
- **What strategies can you use to make sustainable purchasing easier?**
- **What obstacles are you likely to encounter?**
- **What resources are available?**





What are EPPs?



Environmentally preferable products (EPPs) have “a reduced negative effect or increased positive effect on human health and the environment when compared with competing products that serve the same purpose.”

Seattle’s Sustainable Purchasing Policy, 11/06/03



Sustainable Products are...

- Made with recycled content
- Highly energy efficient
- Designed to be long lasting
- Recyclable or compostable
- Made from renewable resources
- Less toxic than conventional goods
- Manufactured locally and responsibly
- Fairly traded
- Safely managed at the end of their life



Opportunities for Sustainable Purchasing

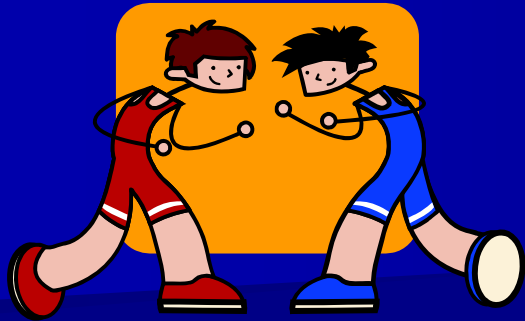
- ◆ Commodity contracts
- ◆ Service agreements
- ◆ Construction projects
- ◆ Purchase orders
- ◆ Credit cards
- ◆ E-procurement



EPP Simplified

EPP =
Environment +
Price +
Performance





EPP Compatible with Procurement Procedures

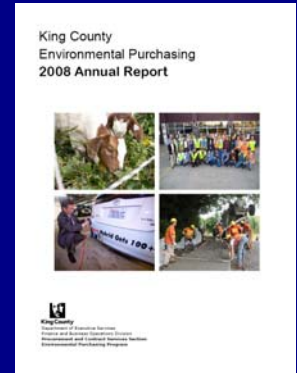
“Nothing contained in this policy shall be construed as requiring a department or contractor to procure products that do not perform adequately for their intended use, exclude adequate competition, or are not available at a reasonable price in a reasonable period of time.”

City of San Mateo Environmental Purchasing Policy





Green Purchasing Programs Save \$



In 2008, King County, WA purchased \$54 million in EPPs and saved \$837,000 compared to conventional products.

[www.kingcounty.gov/operations/procurement/Services/Environmental Purchasing/Annual_Reports.aspx](http://www.kingcounty.gov/operations/procurement/Services/EnvironmentalPurchasing/Annual_Reports.aspx)

In 2007, San Diego expanded its EPP program noting “*the City is already purchasing many environmentally preferable products, resulting in savings of millions of dollars annually.*”

www.sandiego.gov/mayor/pdf/ep3_factsheet_4_4.pdf



How “Green” Products Can Save Money



- Lower upfront costs
- Conserve energy or water
- Reduce paper or fuel use
- Lower maintenance costs
- Extend product life
- Avoid disposal/cleanup costs
- Offset environmental/health program costs



Remanufactured Toner and Ink Cartridges

- Cost 30-60% less per copy than “virgin” cartridges
- NYC saved ~\$50 per cartridge
- King County, WA saved \$250,000 in 2008 buying 3,400 remanufactured toner cartridges for \$165,000 (and returned empties to vendor)



Need strict performance specifications



Recycled Paint

CASE STUDY



- **Portland, OR found recycled paint performs well and costs 50% less than virgin latex paint**
- **Portland requires use of recycled paint whenever it meets need**



Re-refined Motor Oil



- **Santa Monica purchases re-refined motor oil for all vehicles maintained by its Fleet Maintenance Division; costs 25% less than comparable virgin motor oil**
- **Case study, specs from King County, WA www.metrokc.gov/procure/green/oil.htm**



Green Cleaning Saves Money

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)





- **Support local manufacturers and distributors**
 - ◆ Reduces transportation impacts (and costs)
 - ◆ Contributes to local tax base
- **Give preference to Certified Green Businesses**
- **Source locally grown food**
 - ◆ Portland, OR bought 45% local produce for county jail at no extra cost



Purchase for



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



Buy Recycled Paper



Recalculate	Virgin Copy Paper	30% Recycled	100 % Recycled
Paper	Uncoated Freesheet ▾	Uncoated Freesheet ▾	Uncoated Freesheet ▾
Quantity per year	1 Tons ▾	1 Tons ▾	1 Tons ▾
% Postconsumer	0	30	100
<u>Wood Use</u>	3 tons	2 tons 1 tons less	0 tons 3 tons less
<u>Total Energy</u>	38 million BTU's	33 million BTU's 5 million BTU's less	22 million BTU's 17 million BTU's less
<u>Greenhouse Gases</u>	5,690 lbs CO ₂ equiv.	5,058 lbs CO ₂ equiv. 632 lbs CO ₂ equiv. less	3,582 lbs CO ₂ equiv. 2,108 lbs CO ₂ equiv. less
<u>Wastewater</u>	19,075 gallons	16,450 gallons 2,625 gallons less	10,325 gallons 8,750 gallons less
<u>Solid Waste</u>	2,278 pounds	1,941 pounds 337 pounds less	1,155 pounds 1,124 pounds less

[Display data as chart](#)

www.edf.org/papercalculator/



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
- ◆ **Requires vendors to ship printers with duplex default on and train employees to use duplexing equipment**



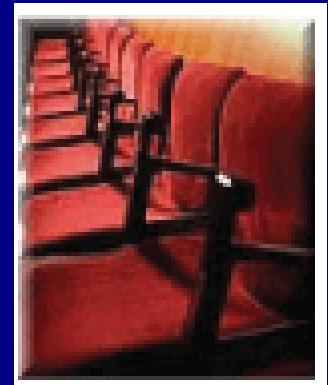
Furniture Reuse and Repair

Establish “Virtual Surplus” Website

CASE STUDY

NYC saved over \$100,000 by contracting with a local firm (for \$15,000) to repair its furniture

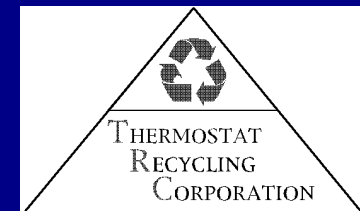
- ◆ 1000 pieces, 66 tons recovered in 2 years
- ◆ \$10,000/year in disposal costs avoided
- ◆ Local jobs created





Require Product “Take-Back”

- Saves time by shifting responsibility for recycling to manufacturers and distributors
- Stimulates infrastructure for efficient recycling
- Encourages manufacturers to redesign their products
 - ◆ More durable, easily recyclable
 - ◆ Less toxic





Rechargeable Batteries

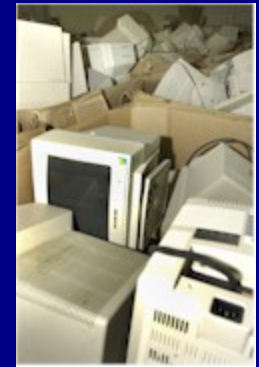
- Can be “re-charged” up to 1000 times
- Reduces replacement and disposal costs associated with single-use batteries



City of San Jose is evaluating its battery use/disposal and pilot testing rechargeable batteries and recycling through the RBRC recycling program.

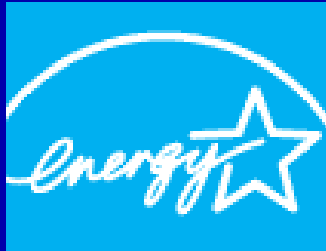


Climate Unfriendly Products



- ▶ **Energy-inefficient products**
- ▶ **Short-lived products (disposables)**
- ▶ **Products that emit potent GHGs**
- ▶ **Products that travel far**
 - Especially if heavy or bulky
 - Especially if traveling by plane





ENERGY STAR



Appliances: washers, dryers, dishwashers, refrigerators

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

Lighting equipment: CFLs, LED fixtures



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 Appliances

CASE STUDY:

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



Green Lighting Contracts



- Issued by State of California, Santa Monica and City/County of San Francisco
- Set environmental/performance standards for lamps and ballasts
 - ◆ Minimum Efficiency/Light Quality (CRI)
 - ◆ Minimum rated life
 - ◆ Maximum mercury content
- Restrict certain lamps and ballasts
- Require all vendors to offer lamp recycling



State of California Bid Spec: www.pd.dgs.ca.gov/contracts/62-31.htm



LED Traffic Signals and Street Lights



- ▶ **50-80% energy savings**
- ▶ **3-5 year payback**
- ▶ **Improved visibility**
- ▶ **Reduced maintenance**
- ▶ **Growing # of “LED cities”**
- ▶ **Stimulus \$ available**





Sustainable Fleets



- Reduce number of vehicles; telecommute
- Purchase/rent hybrids/CNG/electric cars
- Support car sharing
- Add CNG/electric charging stations
- Use Biodiesel
- Encourage contractors to participate in SmartWay Transport Partnership



rent a hybrid car



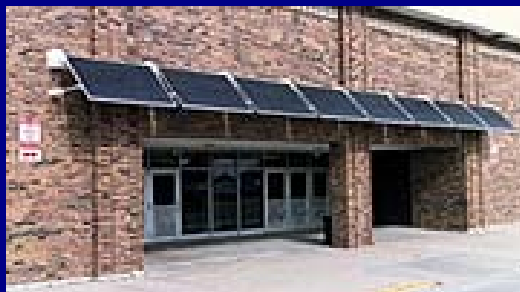
Travel less. Meet online.
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Renewable Energy Procurement Decisions

- ▶ **Type: Solar, wind, biomass, hydro, etc.**
- ▶ **On-site vs. Offsite generation**
- ▶ **Electricity vs. Renewable Energy Certificates (RECs)**
- ▶ **Small scale vs. Large scale**



Water Conservation

- ▶ Water-related energy use consumes 19% of California's electricity, 30% of its natural gas



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



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



Source: California Energy Commission (2005)

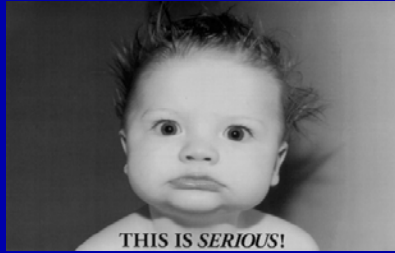
www.energy.ca.gov/2005publications/CEC-700-2005-011/CEC-700-2005-011-SF.pdf



Institutionalize

- Don't try to do it on your own.
- Assess your internal resources.
- Assemble a “Green Team”
- Create a process for working together
- Establish communication and outreach strategies
- Get top level support
- Adopt EPP policy and/or guidelines





Prioritize



- **Largest potential impact**
 - ◆ Health/environmental effects
 - ◆ \$ spent, units purchased, transform markets
- **Ability to meet environmental and health goals/commitments**
 - ◆ Climate, Zero Waste, LEED
- **Opportunities for change** (contracts re-bid)
- **Ease of implementation** (use existing specs)
- **Potential to save money/create local jobs**



Specify Independently Certified Goods & Services



- **Green Seal** (low-toxicity cleaners, paints)
- **Environmental Choice** (Canada EcoLogo)
- **Green Guard for Children and Schools** (low-emitting materials)
- **EPEAT** (green computers)
- **Green-e** (renewable energy)
- **USDA Organic/Fair Trade**
- **Energy Star** (energy-efficient office equipment, CFLs and appliances)
- **EcoWise** (safer pest management)
- **WaterSense** (water-efficient technologies)



Green Seal-certified Products Available

- General/Multi/All Purpose Cleaner
- Restroom /Toilet Bowl Cleaners
- Floor Cleaner/Finish/Stripper
- Glass Cleaners/Degreasers
- Carpet Cleaner
- Hand Soap
- Janitorial/Printing Paper Products
- Food Service Ware
- Paints and Coatings



See www.greenseal.org/certproducts.htm





(Green Computers) 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	

	 ™ BRONZE	 ™ SILVER	 ™ GOLD	Total
Product				
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)
- ▶ www.epeat.net



Centralize



- ◆ **Lowens prices**
- ◆ **Easier to control/monitor purchases**
- ◆ **Simplifies education process**
- ◆ **Saves time on ordering, book-keeping**



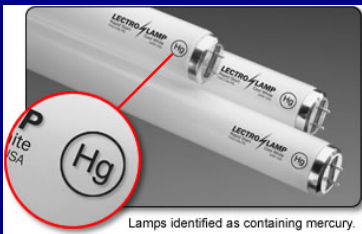
Direct Vendors to...

- ◆ Clearly label environmentally preferable products that meet **YOUR** criteria
- ◆ Require “greenest” products to be listed first via online searches
- ◆ Substitute (or suggest) EPPs when conventional items ordered
- ◆ Periodically report \$ amount of compliant/non-compliant purchases sold on your contract
- ◆ Conduct training and outreach



Block “Red Flag” Products

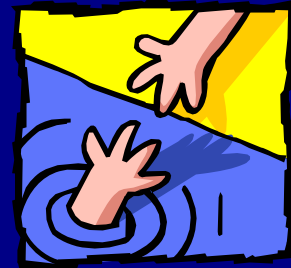
- Hazardous ingredients
- Poor energy efficiency
- Wasteful (disposable)
- Unsustainable production



Purchase Cooperatively

Consider using existing contracts for EPPs:

- ◆ US Communities
- ◆ State of California contracts
- ◆ Multi-state contracts (e.g., Western States Contracting Alliance (WSCA))
 - New WSCA contract for “green” cleaners (from Waxie)



US Communities

U.S. Communities : Green Initiative | Home - Windows Internet Explorer

http://www.gogreengroups.com/

File Edit View Favorites Tools Help

Google US Communities Go Green Search Bookmarks Find Check AutoFill

U.S. Communities : Green Initiative | Home



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

Think of **US** first for PROVIDING SOLUTIONS

U.S. Communities SOLUTIONS

Founding Co-sponsors



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!



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!

 **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...](#)

Internet

Performance Test



- Engage end-users early
- Set performance criteria
 - ◆ Should be no trade-off
- Request product samples
- Conduct pilot tests
 - ◆ Try innovative products
- Only approve what works



Don't Recreate the Wheel

Use specifications developed by other jurisdictions



“Recycle” outreach materials

- ◆ Stopwaste.org
- ◆ Responsible Purchasing Network (guides, webinars)
- ◆ EPPNet List-serve
- ◆ Green Guide for Health Care
- ◆ California's EPP Best Practices Manual
- ◆ King County, WA EPP Bulletins
- ◆ San Francisco's SF Approved List



Questions? Comments?



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