

## Sustainable Purchasing Strategies

Successful Smart Green Purchasing

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## Who Are We?

The Center for a New American Dream is a non-profit organization helping Americans consume responsibly to protect the environment, enhance quality of life and promote social justice.

[www.newdream.org](http://www.newdream.org)

[www.newdream.org/procure](http://www.newdream.org/procure)

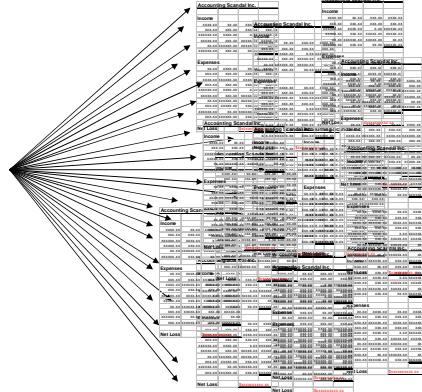
## Link Between Purchasing and the Environment

It's all connected to purchasing



## How to Increase Profits?

Accounting Scandal Inc.					
<b>Income</b>					
XXXXXX	XX_XX		XXXX_XX	XXXXXX_XX	
XXXX_XX	XXXX_XX		XXXX_XX	XXXX_XX	
XXXXXXXX_XX	XXXX_XX		X_XX	XXXXXXXX_XX	
XXXXXXXXXX_XX	XXXX_XX		XXXXXXXXXX_XX		
XX_XX	XXXXXXXXXX_XX		XXXXXXXXXX_XX	XX_XX	
XXXXXXXXXX_XX	XXXX_XX		XXXXXXXXXX_XX	XXXXXXXXXX_XX	
<b>Expenses</b>					
XX_XX	XXXXXX_XX		XX_XX	XXXXXX_XX	
<b>Net Profit</b>			XXXXXXXXXXXXXXXXXX_XX		
<b>Net Loss</b>					



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## Environmental Concerns

- Mass extinctions
- Deforestation & soil erosion
- Air & water pollution
- “Super” bacteria, viruses, and insects
- Dwindling natural resources
- Cancer rates increasing
- Reproductive disorders increasing
- Fisheries collapsing
- Water tables falling
- Climate Change

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## Extinctions

- 51% of freshwater animal species are declining in number.
- One in four vertebrate species are in sharp decline or facing serious pressure from human activities.
- One of every eight known plant species is threatened with extinction or is nearly extinct.
- One in ten tree species—some 8,750 of the 80,000 to 100,000 tree species known to science—are threatened with extinction.
- The overall rate of extinction is estimated to be 1,000 to 10,000 times higher than it would be naturally.

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## Fisheries Declining

- Large, industrial-fishing operations have cut the ocean's population of large predatory fish by 90% in the past 50 years.
- Two-thirds of the world's major fisheries are being fished at or beyond sustainable limits.
- 80% of China's rivers are too polluted to support fish.
- For every pound of shrimp caught, 5.2 pounds of bycatch is discarded.

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## Consuming the Environment

"The major cause of the continued deterioration of the global environment is the unsustainable pattern of production and consumption, particularly in industrialized countries."

- United Nations Agenda 21 Report

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## 2002 World Summit

Emphasized the need for authorities to "[p]romote public procurement policies that encourage development and diffusion of environmentally sound goods and services."

- 2002 World Summit on Sustainable Development in Johannesburg

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## Energy Consumption

- Every gallon of gas burned emits 19 pounds of carbon dioxide.

- Every day, the worldwide economy burns an amount of energy the planet required 10,000 days to create.

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## Resource Consumption

- One ton of virgin paper requires 98 tons of resources to produce.

- A single 1/10 ounce, 14-carat gold ring requires 2.8 tons of ore

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## Typical Desktop Computer

- Manufacturing a typical desktop computer creates 139-pounds of waste and 49 pounds of hazardous materials.
- Producing the six-inch silicon wafer from which computer chips are cut generates 2,840 gallons of wastewater and 7 pounds of hazardous waste.

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## Impact of U.S. Purchasing

The United States contains less than **5 percent** of the world's population, but consumes more than **40 percent** of the world's resources.

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## Impact of U.S. Purchasing

Americans throw away about **4 pounds** of garbage each day, but use **120 pounds** every day in natural resources extracted from farms, forests, range lands, and mines.

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## Ecological Footprint

- Average U.S. citizen has a footprint of 31 acres.
- Average Indian citizen has a footprint of 2 acres.
- World average is 7.1 acres.
- Available world average is 5.3 acres.

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## Ecological Footprint

If everyone lived like the average American, we would need at least five more planets.

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## Ecological Footprint

If current material and population growth trends continue and population stabilizes at 10 billion people in 2040, we will need between eight and twelve additional planets.

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## Two Cups of Coffee a Day

- 34 gallons of coffee a year.
- 18 pounds of coffee beans
- 12 pounds of fertilizer
- A few ounces of highly toxic pesticides
- 43 pounds of coffee pulp
- Clear cutting of forests to grow even more coffee
- Bird species disappearing
- More erosion
- More pesticides

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## Remember One Thing

# Purchasing Matters

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## Environmental Purchasing History

Why Focus on Government Purchasing?



## Government Purchasing

- U.S. government purchasing represents 20 percent of the annual Gross National Product.
- It is very structured.
- It is a role government has traditionally played.



## Size of Government Market

- U.S. Federal Government: \$285 billion
- State and Local Governments: \$400 billion
- Colleges and Universities: \$240 billion



## Government Purchasing History

- Clothing sizes during the Civil War
- Small Business Administration
- Automobile airbags
- Energy-efficient computers
- Recycled-content paper



## Government Purchasing History

- U.S. Federal government purchases 7% of all computers worldwide.
- Began including Energy Star requirements in mid-1990s.
- Currently, 95% of monitors, 80% of computers, and 99% of printers are Energy Star compliant.

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## Defining Environmentally Preferable Purchasing

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## Environmental Purchasing Policies

### States:

Connecticut  
Georgia  
Illinois  
Indiana  
Iowa  
Massachusetts  
Missouri  
Minnesota  
New Jersey  
North Carolina  
Oregon  
Pennsylvania  
Vermont

### Counties:

Chatham County, NC  
Kalamazoo County, WI  
King County, WA  
Kitsap County, WA  
Multnomah County, OR  
San Mateo County, CA  
Santa Cruz County, CA  
Sarasota County, FL

### Cities:

Boulder, CO  
Cincinnati, OH  
Kansas City, MO  
Portland, OR  
Phoenix, AZ  
San Francisco, CA  
Santa Monica, CA  
Seattle, WA

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## Definition Components

- Reduce the environmental impacts of purchasing decisions.
- Emphasize multiple environmental attributes.
- Examine entire lifecycle.

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## Boulder, Colorado

"a material or product [that] is durable, repairable, reusable, or recyclable; has a minimum of packaging, toxic content, or chemical hazard potential; is resource or energy efficient in any or all phases of its manufacture, use, and disposal; or in its use or disposal minimizes or eliminates the [c]ity's potential environmental liability."

- Environmental Purchasing Directive

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## Pennsylvania

"procurement of environmentally friendly commodities and services [that] avoid the use of toxics, minimize use of virgin materials and energy in their production, have a long useful life, and can be recycled afterwards."

- Executive Order

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## Seattle, Washington

"environmental factors to be considered in selecting products include [a] life cycle analysis of:

- pollutant releases;
- waste generation;
- recycled content;
- energy consumption;
- depletion of natural resources; and
- potential impact on human health and the environment."

-- Purchasing Policy

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## Private Sector Companies



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## More Private Sector Companies



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## Federal Government Definition

Environmentally preferable products are "products and services [that] have a lesser or reduced effect on human health and the environment when compared to other products and services that serve the same purpose. This comparison may consider raw materials acquisition, production, manufacturing, packaging, distribution, reuse, operation, maintenance, or disposal of the product or service."

- Executive Order 13101, *Greening the Government Through Waste Prevention, Recycling, and Federal Acquisition*, September 16, 1998

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## The "Real" Definition

*Environmentally preferable purchasing means:*

Buying less polluting products  
from less polluting companies.

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## Expanded Definition

*Environmentally preferable purchasing means:*

Buying less polluting products  
and services from less  
polluting companies.

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## Sustainable vs. Environmental

*Sustainable purchasing means:*

Buying less polluting products and services from less polluting companies that also provide additional societal benefits beyond the jobs, products, and services they create.

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## Environmental Purchasing

*Environmentally preferable purchasing means:*

Buying less polluting products from less polluting companies.

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## **Environmental Attributes**

Defining "Green"

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## Environmental Attributes

- Product-specific attributes
- Process-specific attributes
- Manufacturer-specific attributes
- Life cycle perspective

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## Product-Specific Attributes

- Recycled Content
- Energy and water efficiency
- Biobased
- Low toxicity
- Durability
- Low VOC
- Renewable resources
- Packaging
- Upgradeable
- Resource conservation
- PBT-free
- Others

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## Process-Specific Attributes

- Transportation
- Use of renewable energy
- Absence of hazardous byproducts
- Greenhouse gas emissions
- Closed-loop manufacturing facility
- Others

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## Manufacturer-Specific Attributes

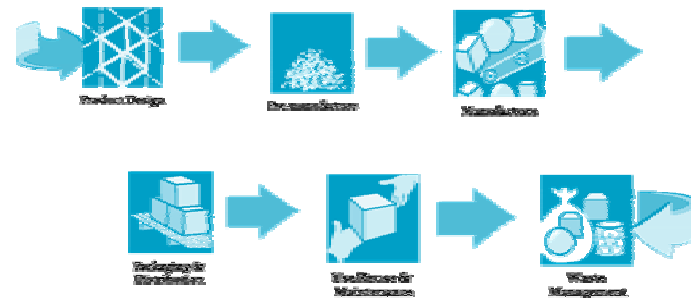
- Lack of environmental violations
- Credible Environmental Management System
- Public environmental/social reporting procedures
- Mechanism for engaging stakeholders
- Absence of ongoing protests
- Others

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## Lifecycle Perspective



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## Opportunities

Where Can We Begin?



## Opportunities

- Buildings
  - New construction
  - Renovation
  - Maintenance
- Cafeteria Supplies
- Cleaning Products
- Computers
- Copiers
- Electricity
- Furniture
- Landscaping/Pest Management
- Meetings
- Office Supplies
- Paint
- Paper
- Printing
- Vehicle Fleets



## Cleaning Products/Services

- Chatham County, North Carolina
- Indiana
- Jackson County, Missouri
- Kansas City, Missouri
- King County, Washington
- Massachusetts
- Minnesota
- Multnomah County, Oregon
- National Park Service
- Pennsylvania
- Richmond, California
- Santa Monica, California
- Seattle, Washington
- U.S. Department of Interior
- U.S. Environmental Protection Agency
- U.S. General Services Administration
- Vermont
- Washington



## Why Cleaning Products?

- Institutional/commercial (I/C) cleaning is a \$100+ billion industry.
- I/C cleaning industry uses roughly 6 to 8 billion pounds of cleaning products.
- Cleaning industry employs 2 to 3 million janitors; but due to very high turn-over, more are exposed.
- Janitors tend to be minorities.
- Most people spend more than 90 percent of their time indoors.
- Many indoor environments contain hazards that lead to health complaints.



## Cleaning Attributes?

- Carcinogens
- Reproductive toxins
- Endocrine disruptors
- Skin & eye irritants
- Asthmagens
- Allergens
- Dyes & fragrances
- VOC content
- Biobased vs. petroleum-based
- Corrosivity
- Product packaging
- Transportation distance
- Flammability
- Toxicity
- Used with cold water
- Biodegradability
- Aquatic toxicity
- Third-party certification

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## Computers

- Massachusetts
- Seattle, Washington
- Washington State Contracting Alliance

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## Why Computers?

- Today, 1.5 million computers enter waste streams annually
- By 2004, as many as 315 million obsolete computers could end up in landfills
  - 1.2 billion pounds of lead
  - 2 million pounds of cadmium
  - 400,000 pounds of mercury
- In 1998, only 6 percent of discarded computers were recycled
- By 2005, most people will trade in their computers for newer models within 2 years of purchase

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## Why Computers?

Manufacturing a typical desktop computer creates 139-pounds of waste and 49 pounds of hazardous materials.

Producing the six-inch silicon wafer from which computer chips are cut generates 2,840 gallons of wastewater and 7 pounds of hazardous waste.

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## Computer Attributes?

- Energy efficiency
- Toxic constituents
- Heavy metals
- PBTs
- Recycled content
- Packaging
- Electro-magnetic radiation
- Noise
- Heat
- Upgradability
- Design for recycling
- Take back provisions
- Worker health and safety
- Third party certification

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## Successful EPP Strategies

How Do We Make It Work?

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## EPP Strategies

- Written Policies
- Cooperative Efforts
- Price Preferences
- Lifecycle Costing
- Best Value Purchasing
- Green Teams
- Vendor Outreach
- Approved Product Lists
- Eco-Labels
- Incentive Programs
- Employee Training
- Plagiarize
- Pilot Projects

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## Overcoming Common Challenges

Negating the Myths

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## Rethink

8, 11, 15, 5, 14, 1, 7, 6, 10, 13, 3, 12, 2

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## Resources

Where to Begin?

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## Where to Begin?

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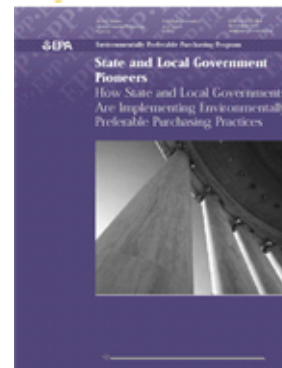
610 373-7703

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## Resources



Pollution Prevention  
Information Clearinghouse  
202 566-0799

EPA Publication Number  
EPA742-R-00-004

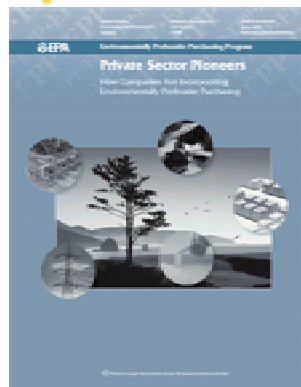
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## Resources



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## Resources



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EPA742-F-00-008

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## Resources

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- Energy Star program <[www.energystar.gov](http://www.energystar.gov)>
- EPA's "Buy Recycled" Program <[www.epa.gov/cpg](http://www.epa.gov/cpg)>
- EPA's EPP Web site <[www.epa.gov/oppt/epp](http://www.epa.gov/oppt/epp)>
- EPP Contracts Database <[www.epa.gov/oppt/epp/database.htm](http://www.epa.gov/oppt/epp/database.htm)>
- EPPNet <[www.nerc.org/eppnet.html](http://www.nerc.org/eppnet.html)>
- Green Seal <[www.greenseal.org](http://www.greenseal.org)>
- Office of the Federal Environmental Executive <[www.ofee.gov](http://www.ofee.gov)>

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