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Environmentally Preferable Purchasing: *A Getting Started Guide*

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The National Wildlife Federation (NWF) is the largest conservation organization in the United States with one million members. Founded in 1936, its mission is to inspire Americans to protect wildlife for our children's future.

For more information about National Wildlife Federation's mercury campaign, go to www.nwf.org/mercury.



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S tate and local governments nationwide are one of the largest consumer groups in the United States. From computers to janitorial supplies, government procurement officers make purchasing decisions every day that can have far reaching impacts.

For the past decade, the National Wildlife Federation (NWF) has been dedicated to protecting America's wildlife heritage from toxic mercury pollution. Its Clean the Rain Campaign is working to eliminate the largest sources of mercury pollution, trying to reverse widespread contamination that has become commonplace. With 45 states issuing mercury fish advisories, and one in six women at risk of giving birth to a child with neurodevelopmental delays due to mercury exposure, the problem has grown to such proportions that decision makers nationwide are exploring all options for phasing out significant sources of mercury.

Mercury use in products presents a major opportunity for making significant progress in eliminating mercury, as safe and affordable alternatives exist. Every year, nearly 200 tons of mercury is used in the production of consumer products, from fluorescent bulbs to computers. For this reason, NWF embarked on developing a guidebook to assist procurement officers with implementing "environmentally preferable purchasing" programs. Recognizing, however, that procurement officers make purchases that have broader environmental implications, this guide provides resources to assist with implementing environmentally preferable purchasing efforts that extend beyond mercury products.

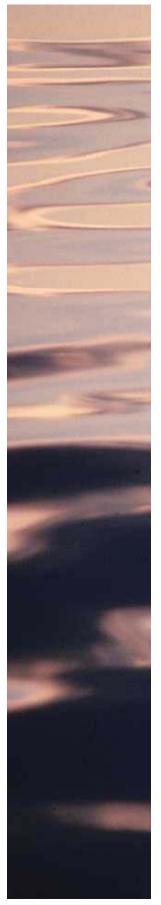
The Environmentally Preferable Purchasing: A Getting Started Guide represents a natural extension of NWF's work on mercury and other persistent toxics to address the full range of environmental impacts that purchasing decisions affect.

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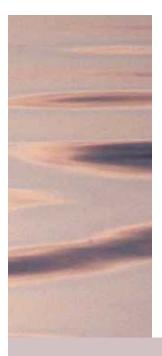
Introduction

The products and services. These programs also provide managers with a framework to evaluate the overall financial and environmental costs and benefits of their purchasing decisions.

This comprehensive guide provides procurement officers the information they need to begin implementing green purchasing in their state or locality. Designed to serve as a one-stop-shop, this guide includes technical information on green alternatives to commonly purchased goods, as well as contract language, policies, ordinances, and other resources for implementing an Environmentally Preferable Purchasing program. These materials complement the work of other non-profit organizations, such as INFORM, Inc., and Center for a New American Dream, that have provided many of the materials contained herein, have technical staff who are skilled in evaluating environmental attributes of products, and can assist states with implementing green purchasing programs.



1. Overview



Environmentally Preferable Purchasing (EPP): Background

nvironmentally preferable purchasing has its origins in early recycling programs. These programs prompted the sale of products containing recycled content, and efforts to support purchases of such products shortly followed. Today, environmental purchasing has been expanded to encompass a variety of environmental attributes from energy efficiency and low-toxicity to biodegradability.

"About 11 years ago, the State of Massachusetts decided that in order to promote recycling they needed to hire some people in the purchasing office to focus on recycled products procurement. It wasn't long before we recognized that if we could do this with recycled products we could do it with other products to achieve our policy goals and priorities in the state. That led to looking at energy and energy efficiency, toxics, water issues and so forth."

~ Eric Friedman, Director of State Sustainability for the Executive Office of Environmental Affairs of the Commonwealth of Massachusetts. With this increase in scope, singleproduct environmentally preferable purchasing initiatives are giving way to expanded Environmentally Preferable Purchasing programs. Recognizing that a more comprehensive approach to environmentally preferable purchasing is needed, these programs allow procurement officers to better account for progress both in terms of environmental impacts and cost savings. Such programs help procurement officers allocate scarce resources effectively to high-priority product categories.



Several states and cities have institutionalized environmentally preferable purchasing through policy mandates and the establishment of formal EPP programs. For example, Massachusetts and Minnesota have well-documented EPP programs, as do the cities of Santa Monica, CA; Seattle, WA; and Boulder, CO.

An increasing number of organizations, such as INFORM, Inc., Center for a New American Dream, and other non-profits focusing on pollution prevention, have

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formed to assist in the adoption of these programs. The U.S. Environmental Protection Agency (EPA) has an extensive program and database on Environmentally Preferable Purchasing and provides "Comprehensive Procurement Guidelines" (see http://www.epa.gov/opptintr/epp/ and http://www.epa.gov/cpg/index.htm).

The private sector has recognized the opportunity to capitalize on demand for green products. Companies like Interface, Inc., the world's largest commercial carpet manufacturer, now offer several products made from recycled components. Trade associations have made setting standards for environmentally friendly products within their industries a top priority. For example, the Forest Stewardship Council is an international labeling program for timber products that certifies that the product comes from a forest that meets internationally recognized standards for sustainable logging.

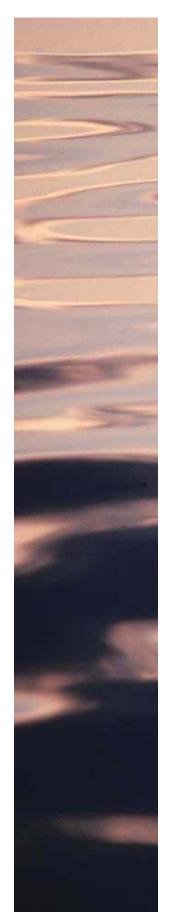
EPP Today

he EPA defines Environmentally Preferable Purchasing as selecting "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."¹

There are several environmental criteria to consider when comparing products. Frequently cited attributes include:²

- Biobased
- Biodegradable
- Carcinogen-free
- Chlorofluorocarbon (CFC)-free
- Compostable
- Durable
- Energy efficiency
- Lead-free
- Less hazardous
- Locally manufactured
- Low volatile organic compound (VOC) content
- Low-toxicity
- Mercury-free

- Persistent bioaccumulative toxics (PBT)-free
- (Rapidly) renewable materials
- Recyclable
- Recycled content
- Reduced greenhouse gas emissions
- Reduced packaging
- Refurbished
- Renewable energy
- Resource efficiency
- Upgradeable
- Waste preventing
- Water efficient



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When appropriate, multiple criteria should be considered when evaluating a single product. In choosing which criteria to use, the purchasing agency should consider what current policies are in place. For example, many states already have laws that ban the purchase of lead-containing products. The Minnesota Office of Environmental Assistance has developed a web page dedicated to setting purchasing criteria (http://www.moea.state.mn.us/lc/purchasing/criteria.cfm).

"Another reason that Massachusetts has been successful is because it has dedicated [environmental] staff in the purchasing office. I think that has been really important because vendors coming in know where to go. It means that people with questions know where to go. There is someone coordinating the program and doing the research, finding out who else is using the products.

If you don't have that, things just get sort of lost and there is no one taking charge, no one spreading the word, no one doing the research. Having an environmental specialist in the procurement office would be one of my first and primary recommendations to any large organization considering starting an EPP program."

~ Eric Friedman

With the assistance of environmental staff, purchasing managers can analyze the content and environmental impacts of current purchases and make changes to requests for services and products based on targeted environmental attributes. In addition to using in-house expertise, purchasing managers can rely on the work of several government, nonprofit, and private entities that have begun to develop standards and labels for various environmental attributes.

The EPPnet listserv coordinated by the Northeast Recycling Council (http:// www.nerc.org/eppnet.html) is also an important source for EPP product



information, such as availability of product specifications, vendors of particular products, pricing information, and strategies to achieve recycled product procurement goals and federal procurement policies. The listserv links federal, state, local and private procurement and environmental officials charged with purchasing environmentally preferable products and services, and developing policies for the procurement of these products.

State and local governments that have adopted EPP programs report both environmental benefits and cost savings. A few examples of reported benefits include:

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- Four projects through the Ohio Energy Services program were estimated to save the state over \$10 million. Its Performance-Based Contract Program allows state agencies to use energy savings to pay for building improvements.³
- Santa Monica, California, estimates that its green cleaning product purchases have eliminated 3,200 pounds of hazardous materials annually and saved the city approximately 5 percent on annual cleaning product expenses.⁴
- Cape May County, New Jersey, saved \$45,000 between 1993 and 1998 by adopting an Integrated Pest Management approach to minimize the environmental impacts associated with use of chemicals to control unwanted insects, rodents, and weeds.⁵

In addition to reduced environmental impacts, benefits of an EPP program can include:

- Purchase price cost savings
- Reduced repair and replacement costs when using more durable and repairable products
- Improved product design and performance of the product(s)
- Increased employee safety and health
- Improved employee morale and public/taxpayer support of government activities

Cost savings from EPP programs are achieved when materials can be purchased at a lower price (e.g., remanufactured products), operational costs are reduced (e.g., energy efficiency), disposal costs are reduced (e.g., more durable products) and hazardous management costs are reduced (e.g., less toxic products). Environmentally preferable purchasing can also reduce an organization's future liabilities related to risks associated with storing hazardous materials and complying with environmental regulations.



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Importance of State EPP Programs

ike federal agencies and other large institutions, such as universities and hospitals, state purchasing agencies exert tremendous purchasing power. State and local governments will spend more than \$500 billion on goods and services in 2006.⁶ This purchasing power combined with ecologically sound purchasing criteria provides state procurement departments with the potential to greatly reduce adverse environmental impacts. In addition, some states, including Minnesota and Ohio, make purchases on behalf of local municipalities and townships through cooperative purchasing ventures, further increasing state purchasing power and the potential to affect environmental improvements. The large purchasing volume of institutions gives procurement officers the ability to influence what products and services are offered in end markets. By increasing demand for environmentally preferable goods such as recycled products, renewable energy, energy-efficient products, non-toxic cleaners and sustainably harvested wood, such institutions can promote the availability of cleaner products and processes to the broader public.

The transparency of government purchasing programs also allows state EPP programs to serve as a model for private companies and organizations that are considering adopting an EPP program. Because state purchasing offices must comply with public document disclosure laws (to ensure that their purchasing decisions are fair and prudent), environmentally preferable purchasing policies and requests for bids that include specifications for environmentally preferable programs.

Finally, as public institutions, state purchasing agencies can provide better tax payer accountability by supporting environmental protection through purchasing.

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2. Implementation

Implementing an EPP Program:

Guidelines

he U.S. Environmental Protection Agency provides the following guidelines for establishing an EPP program:⁷

• Environment + Price + Performance = EPP.

Environmental considerations should become part of normal purchasing practices, consistent with such traditional factors as product safety, price, performance, and availability.

• Pollution Prevention.

Consideration of environmental preferability should begin early in the acquisition process and be rooted in the ethic of pollution prevention, which strives to eliminate or reduce, up-front, potential risks to human health and the environment.

• Life Cycle Perspective/Multiple Attributes.

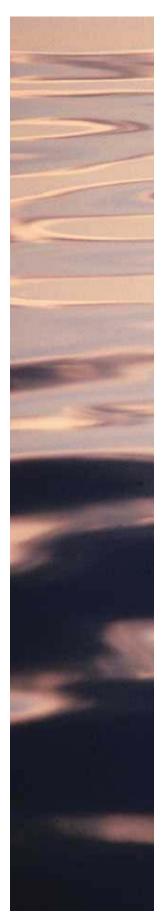
A product or service's environmental preferability is a function of multiple attributes from a life cycle perspective.⁸

• Comparison of Environmental Impacts.

Determining environmental preferability might involve comparing environmental impacts. In comparing environmental impacts, federal agencies should consider the reversibility and geographic scale of the environmental impacts, the degree of difference among competing products or services, and the overriding importance of protecting human health.

• Environmental Performance Information.

Comprehensive, accurate, and meaningful information about the environmental performance of products or services is necessary in order to determine environmental preferability.



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Strategies

n addition to these guidelines, we have identified the following important strategies that can help procurement officers develop successful EPP programs or policies:

Secure Senior Management Support.

Few programs will survive without support from the top. Securing executive support is aided by the establishment of legislation and/or Executive Orders that mandate environmental preferable purchasing. Several examples are included throughout this guide.

Establish Written Policy.

Many programs fail due to a lack of well-conceived written policies. Written policy provides procurement staff a source from which they can clarify the intent of the EPP program. Policies might include guidance for purchasing decisions such as allowing for price preferences or "best value" purchases. The Center for a New American Dream recently completed a study that examined written policies at over 60 state and local governments. Available from their website (http:// www.newdream.org), this is a valuable resource for states that are just getting their programs off the ground, or are looking to update or revamp their programs.

Establish Project Leadership.

Successful implementation often is the result of strong leadership. It is recommended that someone with strong operational and people skills and knowledge of environmental issues be selected for this position.

Establish a "Green Team".

In addition to a project leader, a green team should be formed with members from various functional areas who traditionally have a role in purchasing decisions (senior management, end-users, specifiers, environmental, health and safety staff, waste management, etc.). The green team helps ensure commitment to the program throughout the organization.

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Establish Short Term and Long Term Program Objectives.

Short term objectives should include targeting key product categories and one or two environmental attributes. Long term objectives should include targeting several, if not all, product categories and multiple environmental attributes.

Provide Employee Training.

Whether as part of routine training or as stand-alone sessions, employee training for EPP should be required of all purchasing staff. These sessions should ensure that procurement professionals understand the importance of key environmental attributes and have access to relevant resources and program policies.

"I think measuring your progress is really important. We have a graph that shows the number and volume of environmental products that we purchase and that is really useful to show to people. Also, measure the environmental benefits to give people a reason why you are doing this. We are working on a state sustainability report, which will include a piece on procurement. We can always do a better job measuring and tracking the things that we do and it's important that we do that."

~ Eric Friedman

Provide Incentives.

Reward purchasing employees that

make efforts to help operationalize an EPP program. Recognize departments that achieve better than expected results.

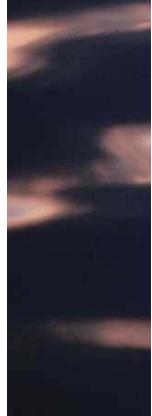
Establish Standard Accounting and Reporting Procedures.

In order to evaluate the effectiveness of EPP programs, agencies should establish standard accounting and reporting procedures for environmentally preferable purchases.

Celebrate and Demonstrate Success.

Environmentally preferable purchasing programs need widespread support to maintain continued enthusiasm. Purchasing departments should highlight the results of their EPP programs in performance reports and regular staff communications.

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Overcoming Obstacles

ven the best intentioned managers may face challenges to establishing an effective and long-lasting environmental purchasing program. Some of the more common obstacles are discussed below, along with suggestions for overcoming them.

"Overcoming these perceptions takes a multifaceted approach. It's about not forcing things down peoples' throats. It's trying to understand what they heard or why they think what they think. If you think you need to give them something to try out or a pilot program to overcome these perceptions, that's a good approach. If you need to find someone who is a fleet manager in another state who has been using rerefined oil for seven years to talk to your person making the purchases to let him or her know that using re-refined oil doesn't void the warranties of the vehicles because he has already talked to Ford and GM about it, then that's what you have to do."

~ Eric Friedman

Obstacle:

"There is perception that EPP products don't work, that they are too expensive, and that they will not meet the needs of our end users"

Recommendations:

- Demonstrate products through pilot programs
- Talk to other states that have used the products
- Work with your end users to better understand their needs



Obstacle:

"We started an EPP program years ago but now it's no longer effective."

Recommendations:

EPP programs require long-term commitment. To ensure sustained effectiveness:

- Establish written policy
- Provide incentives
- Establish metrics to prove program's value after initial activity has slowed
- Link the program's benefits to priorities of other state agencies
- Pass legislation or issue an Executive Order to require it and allocate funding for it.

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Obstacle:

"These decisions are too complex and therefore too time consuming for our purchasing staff."

Recommendations:

Simplify your EPP program by:

- Targeting specific attributes
- Establishing "approved/preferable" products
- Identifying specific product labeling
- Providing resources to access information
- Conducting life cycle costs and environmental assessments prior to implementing the program.



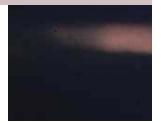
"I think linking up with other agencies in your state that have environmental or public health priorities is a good idea. You get institutional support this way. It makes the procurement process integral to the state's other priorities."

~ Eric Friedman



"You need to start by going to the sources and sites that you trust. You start with the federal government to see what kind of recommendations they have. There are lots of folks out there who are doing education and research on EPP. There are places like The Center for a New American Dream that have links to their own information and other states and procurement programs. You can ask questions to purchasers rather than getting information from the vendors. I think it's tough when you get information from vendors and you don't know if you can trust it or not."

~ Eric Friedman



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Obstacle:

"We are in a state budget crunch and cannot afford to implement an EPP program."

Recommendations:

EPP programs can be implemented over time:

- Simplify the program and choose only one product or service where EPP principles will be incorporated.
- Try a pilot project that targets highest cost savings, e.g. energy efficiency



Obstacle:

"Our state accounting practices do not reflect the financial benefits of EPP." *Recommendations:*

The purchase price is not the only cost related to the product.:

- Integrate "total cost assessment" procedures into contracts with service and product providers.
- Adjust financial evaluation procedures to consider costs and benefits beyond the purchase price of a product or service.

"Generally, procurement offices are not in a position to suddenly make all of their products environmentally preferred products. I think it makes a lot of sense to start with a couple of products that you feel comfortable with and that will have some success."

~ Eric Friedman



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3. Our Approach

Priority Areas

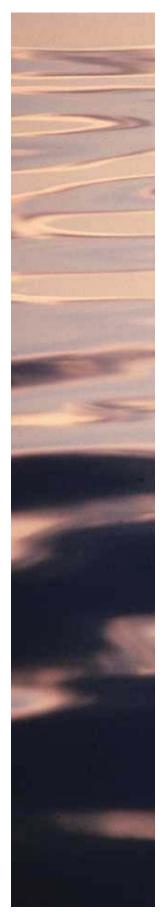
or any given institution, a process of reviewing environmental and product priorities, environmental and cost impacts, and other criteria will be necessary to identify the best place to begin an EPP program or approach. As we review the experiences that states, municipalities and other organizations have had in implementing a wide range of environmental purchasing policies, however, a short list of EPP programs emerges. The approaches or products that have been more widely and effectively implemented may be a particularly useful place to begin EPP activities. These approaches include:

- broad purchasing policies which address mercury or other persistent bioaccumulative toxic (PBT) chemicals such as lead;
- broad purchasing policies which increase energy efficiency;
- product specific policies to improve the environmental impact of cleaning supplies, computer equipment, paper, and paper products.

In this guide we provide an overview of each of these high priority areas as well as links to environmental purchasing information on a wide range of other potential product and procurement areas.

Purchasing Mercury and PBT-Free Products

Like lead, mercury is a powerful neurotoxin that should be eliminated from purchases. Purchasing departments can drastically reduce the acquisition of new mercury-containing products with widely available mercury-free alternatives. States have approached reducing mercury and other PBTs both through broad agreements that require the state to avoid mercury, lead, or other persistent toxics in all products procured, and through specific mercury-free policies targeting key products where use is more common. In Section One we provide examples both of these broad agreements and specific mercury product policies, including lowmercury lighting, automobiles and medical products.



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Purchasing for Energy Efficiency

Energy efficiency achieves significant cost savings and reduces multiple pollutants simultaneously that are generated in the production of electricity. Energy efficient purchasing has grown in popularity nationwide among institutions and homeowners with the emergence of EPA's Energy Star program. Sample procurement language and other resources are found in Section Two.

Top Product Categories

Working with a variety of organizations who have aided in the development of state level EPP programs, we have identified the top three purchasing categories where states have been most successful in reducing environmental impacts through purchasing preferences. For each product, sample procurement language, contracts, statutes, and reference material is provided (see Sections Three and Four).

- Computers Computers are filled with hazardous components, including mercury and CFC's. Because the technology is constantly advancing, old systems quickly become obsolete, thereby creating a significant waste problem. Purchasing decisions should favor products that are less toxic, energy efficient and built using recycled materials.
- Cleaning Supplies To reduce exposure to toxic chemicals found in many cleaning products, several purchasing departments across the country award contracts to suppliers of less toxic cleaning products. Purchasing safer cleaning supplies reduces risks to custodial workers and employees through reduced exposure to cleaners, solvents, paints, and other hazardous materials, and reduces releases to public water supplies and landfills.

Paper and Paper Products – Recycled papers are nearly identical from their non-recycled counterparts, with similar performance, color and cost. Compared to virgin paper manufacturing, paper produced from recycled material creates less air pollution and uses a great deal less energy and water. In addition, using recycled paper reduces the total amount of waste paper sent to a landfill or incinerator.

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4. This Guide

What You'll Find in the Guide:

NWF's EPP guide is intended to provide representative information on select product categories and more generally on EPP programs adopted by select state and local governments. It does not attempt to include the entire set of materials available on these subjects. We hope that you will find these materials helpful as you embark on instituting environmentally preferable purchasing decisions at your institution.

Below is a detailed list of what you will find in this guide.

Section One: Purchasing Mercury-Free Products

General Resources

- Mercury-containing products and alternatives INFORM, Inc.
- Mercury: Managing, recycling, Disposing; A business guide to conducting a mercury audit P3 Erie
- Mercury-free industrial thermometers, manometers, thermostats, and switches fact sheet INFORM, Inc.
- Shedding light on mercury in fluorescents INFORM, Inc.

Mercury & Fluorescent Lamps

- Mercury disclosure requirements and the New Jersey lamp contract INFORM, Inc.
- Recommended specification for lamp purchasing contracts INFORM, Inc.
- Fluorescent lamp recycling: 10 steps to a successful program H2E Program
- King County, WA Executive Order Mercury-containing lamp recycling
- Massachusetts Contract Award Collection and recycling of fluorescent lamps and mercury-containing devices and/or cathode ray tubes, computers and electronics

Mercury & Vehicles

- Purchasing cleaner vehicles: Questions and answers for fleet buyers and vehicle purchasers INFORM, Inc.
- Purchasing cleaner vehicles: Recommended purchasing specifications for vehicle bids
- Minnesota moves to drive mercury out of environment INFORM, Inc.
- Minnesota Request for Bid Automobiles, passenger vehicles and cargo vans

Mercury & Hospitals

- Massachusetts rids mercury from state hospitals INFORM, Inc.
- Mercury-free resolutions and purchasing policies Sustainable Hospitals



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Sample Policies, Resolutions and Executive Orders

- Maryland Regulation 21.11.07.07 Mercury and products that contain mercury
- Connecticut Mercury Education and Reduction Act Elemental mercury purchasing and disposal requirements
- Amherst College Mercury Use Reduction Policy
- Seattle, WA Resolution No. 30487 Stating Seattle's intent to reduce its use of PBTs, and setting forth a work program
- Washington Executive Order No. 04-01 Persistent toxic chemicals

Section Two: Purchasing for Energy Efficiency

General Resources

- Energy Star institutional purchasing EPA
- Finding money for energy efficiency EPA
- Energy efficiency procurement resources EnergyIdeas Clearinghouse
- Additional energy resources

Sample Contract Language, Specifications, and Policies

- NY City Council Policy 536-A Energy efficient products
- Energy Star office products: Sample procurement language

Section Three: Top Product Categories

Computers

General Resources

- Guide to environmentally preferable computer purchasing Northwest Product Stewardship Council
- Electronic equipment and product stewardship Northwest Product Stewardship Council
- Additional computer resources Center for a New American Dream

Cleaning Supplies

General Resources

- General purpose cleaners Green Seal
- Approved products Center for a New American Dream
- Additional cleaning products resources Center for a New American Dream

Sample Contract Language, Specifications, and Policies

• NY City Council Policy Int. No. 552 – Less toxic custodial products

Paper Products

General Resources

- Buying better copy paper Scot Case
- Additional environmentally preferable paper links Center for a New American Dream (cont.)

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Sample Contract Language, Specifications, and Policies

• Minnesota Statute 16B.122

Section Four: State EPP Examples

Laws, Resolutions, Executive Orders, Ordinances

- Minnesota Executive Order 99-4 Implementation of pollution prevention and resource conservation by state government
- Minnesota Statutes 2004 Purchase of recycled, repairable, and durable materials
- California Bill No. AB498 Environmentally preferable purchasing
- Cincinnati, OH Ordinance No. 141-1994 Environmentally preferable purchasing
- Buffalo, NY Resolution PBT-Free Purchasing
- Sarasota County, FL Resolution No. 02-119, 2002 Environmentally preferable purchasing, energy efficiency, sustainable stewardship
- Boulder, CO Environmental Purchasing Policy Directive
- Kansas City, MO Green Purchasing Ordinance
- Seattle, WA Environmental Policies & Procedures Environmentally responsible purchasing
- Illinois Executive Order No. 6 (2000) Establishing the Green Illinois government coordinating council

Model policies & initiatives

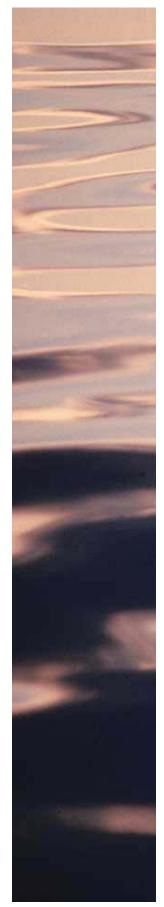
- Maine Environmentally preferable procurement program
- Minnesota Product stewardship policy initiative
- Alameda County, CA Environmentally preferable purchasing model policy & Implementation guidance for model policy
- Sample purchasing resolution NACO's Environmental purchasing starter kit

Other resources

• Links to State EPP Resources

References

- ¹ Executive Order 13101, Greening the Government Through Waste Prevention, Recycling, and Federal Acquisition (September 14, 1998) and its predecessor, Executive Order 12873, Federal Acquisition, Recycling, and Waste Prevention (October 20, 1993), <u>http://www.ofee.gov/</u>.
- ² See, for example, Case, S. Environmental Purchasing Policies 101: An Overview of Current Environmentally Preferable Purchasing Policies, March 25, 2004, <u>http://newdream.org/procure/ policy/policy101.pdf</u>
- ³ Ohio Department of Administrative Services, 2004 Annual Report, <u>http://das.ohio.gov/ASD/PDFs/</u> <u>DASAR2004-6-30-05FINALWebversion.pdf</u>
- ⁴ U.S. Environmental Protection Agency (EPA), State and Local Government Pioneers: How State and Local Governments Are Implementing Environmentally Preferable Purchasing Practices, EPA742-R-00-004, November, 2000, <u>http://</u> www.epa.gov/opptintr/epp/pubs/statenlocal.pdf
- ⁵ Ibid.
- ⁶ Governing.com, The State and Local Market, <u>http://www.governing.com/mediakit/market.pdf</u>
- ⁷ U.S. EPA, U.S. EPA, Environmentally Preferable Purchasing: The Five Guiding Principles, <u>http://www.epa.gov/opptintr/epp/pubs/guidance/</u> fivegp.htm
- ⁸ See also U.S. EPA, Life-Cycle Assessment, <u>http://www.epa.gov/ORD/NRMRL/lcaccess/</u>



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