



Commission for Environmental Cooperation

Environmental Purchasing Policies 101

An Overview of Current Environmentally Preferable Purchasing Policies

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For:

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Introduction

Beginning in the mid-1980s, colleges and universities, private sector companies, and governments across North America began enacting environmental purchasing policies that stipulated buying “environmentally friendly” products and services. While early policies focused almost exclusively on “buy recycled” strategies, more recent policies have emphasized a broader variety of environmental attributes. As a result, environmental purchasing policies are becoming increasingly sophisticated.

Organizations have decided it is important to develop a written environmental purchasing policy for a variety of reasons, including:

- “Legitimizing” changes in traditional purchasing procedures.
- Verifying senior management support for green purchasing.
- Educating individual staff members and the organization as a whole about the importance of buying less polluting products from less polluting companies.
- Documenting a vision for balancing price, performance, and environmental considerations for making purchasing decisions reinforces the purchasing department’s role in achieving the organizations other environmental objectives.

This report is based on a review of more than 80 environmental purchasing policies. It is designed to make it easier for future policy writers or reviewers to know what policy components others think are most relevant and why. The report includes extensive examples of the actual policy language others are using to outline their environmental purchasing objectives.

It is important to note that it is possible to have a very successful environmental purchasing program without having a written policy. Santa Monica, California, for example, is widely recognized for its environmental purchasing program, but it does not have a formal environmental purchasing policy. Conversely, having a wonderfully detailed environmental purchasing policy does not guarantee the emergence of a successful environmental purchasing program.

Several reviewers have also noted that policy language is often the exclusive domain of senior organization officials, but that the actual day-to-day work is carried on by dedicated, less senior officials who are busy juggling a variety of occasionally competing policy objectives. To be truly effective, the environmental purchasing policy language must be clear, it must avoid conflict with existing policy objectives, and must be implemented throughout the entire organization in a rigorous and systematic approach or the policy is ultimately meaningless.

Some readers will be interested in using only the “best” policy language when developing or updating their own environmental purchasing policy. Defining the best language, however, is not the purpose of this report. Instead, the policy language presented is what others are using to facilitate discussions within the policy development team about the environmental purchasing topics policy writers consider important.

Defining the best language in a report of this type is impossible because the best policy language for an organization is highly dependent on the current needs, structure, and opportunities available within the organization. Only individuals intimately familiar with an organization’s current policies, operating procedures, and willingness and ability to change are capable of determining which policy language is most appropriate for the organization.

For those readers who are interested in seeing specific policy recommendations, a sample purchasing policy is included as Appendix One. When developing the sample policy, it was generally assumed that more specific policy language is preferable to more generic language. This will not be true for every organization. In fact, in some organizations, less specific language is preferable because it provides for greater flexibility.

The contents of this report are organized as follows:

- **Environmental Purchasing Policy Components**
 - Describe Why it is Important to Buy Environmentally Preferable Products
 - Define Environmentally Preferable Purchasing
 - Identify Desired Environmental Attributes
 - Balance Environmental Considerations with Performance, Availability, and Cost Requirements
 - Modify Specifications
 - Empower a Green Purchasing Team
 - Identify Initial Priorities
 - Assign Responsibilities and Establish Deadlines
 - Reference Existing Environmental Labeling and Certification Programs
 - Create a Communications Plan
 - Develop Measurable Goals and Reporting Requirements
 - Review Policy Regularly
- **Appendix One – Sample Environmental Purchasing Policy**
- **Appendix Two – Environmental Purchasing Definitions**
- **Appendix Three – Bibliography**

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Environmental Purchasing Policy Components

Over the past two decades, large institutional purchasers (including private companies, colleges and universities, and federal, state, provincial, and local governments) have recognized the environmental impact of their purchasing decisions. Many began adopting “buy recycled” purchasing policies in the mid-1980s to reduce pressures on overburdened landfills and protect the environment by stimulating markets for recycled-content products. These policies have been extremely effective in extending the life of local landfills, stabilizing markets for the recyclable materials collected by curb-side recycling programs, creating jobs, protecting natural resources, and meeting governments’ needs for effective and affordable products.

But now, “buy recycled” is not enough for many purchasers. They are recognizing that purchasing decisions impact a wider variety of environmental concerns. Everything from climate change to toxins in the environment can be linked to purchasing decisions. As a result, growing numbers of organizations are expanding their “buy recycled” policies and practices to incorporate a wider variety of environmental considerations such as buying less hazardous cleaning products, energy- and water-efficient products, and electricity from less polluting sources.

As environmental purchasing policies are created or updated, there are a number of issues to address. Based on a review of more than 80 environmentally preferable purchasing policies conducted by the Center for a New American Dream <www.newdream.org/procure> on behalf of the North American Green Purchasing Initiative <www.nagpi.net>, the following policy components should be considered:

- Describe why it is important to buy environmentally preferable products
- Define environmentally preferable purchasing
- Identify desired environmental attributes
- Balance environmental considerations with performance, availability, and cost requirements
- Modify existing specifications
- Empower a green purchasing team
- Identify initial priorities
- Assign responsibilities and establish deadlines
- Reference existing environmental labeling and certification programs
- Create a communications plan
- Develop measurable goals and reporting requirements
- Review policy regularly

Describe Why it is Important to Buy Environmentally Preferable Products

Many of the purchasing policies establish a clear link between purchasing decisions and environmental concerns. They use this link to justify the importance of buying more environmentally preferable products from more environmentally preferable companies. A North Carolina Executive Order, for example, explains that “the State constitutes a large consumer of goods and services, which, in the course of their manufacture, use, and disposition impact the

quality of the environment.”¹ The policy of San Mateo County, California, states its goal as “to encourage and increase the use of environmentally preferable products and services in San Mateo County. By including environmental considerations in purchasing decisions, [the county] can promote practices that improve public and worker health, conserve natural resources, and reward environmentally conscious manufacturers, while remaining fiscally responsible.”²

There are numerous additional examples of this kind of policy language. A few examples include:

- “The Government of Manitoba recognizes that the purchasing decisions that its employees make can have an impact on the sustainability of the province’s communities and environment. Accordingly, this means that product purchases shall be based on:
 - (a) careful consideration of the good’s, material’s or service’s impact on the environment, economy, and human health and well-being;
 - (b) consideration of market factors, such as specifications, quality, delivery date, and price of the good, material or service; and
 - (c) preference being given to the purchase of environmentally preferable goods and materials whenever they perform satisfactorily and are available at a reasonable price.”³
- “The purchase, use of products and services, and ultimate disposal can profoundly impact the environment. The Dartmouth-Hitchcock Medical Center recognizes the positive impact that it can make on the environment through its purchasing decisions. It is the intent of the Dartmouth Hitchcock Medical Center to integrate environmental considerations into every aspect of acquisition, while maintaining cost excellence and value standards.”⁴
- “The purpose of environmentally preferable purchasing is to protect human health and environmental well-being by reducing the procurement of goods and services that result in larger volumes of waste and pollutants.”⁵
- “By including environmental considerations in purchasing decisions, Land-of-Sky Regional Council can promote practices that improve public and worker health, conserve natural resources, and reward environmentally conscious manufacturers, while remaining fiscally responsible.”⁶
- “Environmental purchasing is an important way for City staff to demonstrate leadership for the environment. Every day someone at the City, whether they have ‘purchasing’ in their title or not, is considering or carrying out a buying decision on behalf of the City. This guide shows how we can use our purchasing power to demonstrate commitment to the environment.”⁷
- “[T]he use of recycled and environmentally friendly products and services by Chapel Hill can spur private sector development of new technologies and use of such products, thereby

¹ North Carolina, *Executive Order 156, State Government Environmental Sustainability, Reduction of Solid Waste, and Procurement of Environmentally Preferable Products*, 20 July 1999.

² San Mateo County, California, *Environmental Purchasing Policy*, 6 December 2000.

³ Manitoba, *Sustainable Development Procurement Guidelines*, 6 December 2000.

⁴ Dartmouth-Hitchcock Medical Center, *DHMC Environmentally Preferable Purchasing Policy*, June 2002.

⁵ California, *Public Contract Code, Division 2, Part 2, Chapter 6*, 16 September 2002.

⁶ Land-of-Sky Regional Council, *Environmentally Preferable Purchasing Resolution*, 1 July 2001.

⁷ Richmond, British Columbia, *Environmental Purchasing Guide*, February 2001.

creating business and employment opportunities and enhancing regional and local economies...”⁸

- “By incorporating environmental considerations in public purchasing, the City of San José can [meet its environmental] commitment by reducing its burden on the local and global environment, removing unnecessary hazards from its operations, protecting public health, reducing costs and liabilities, and potentially improving the environmental quality of the region.”⁹
- The intent of this policy is to “reward manufacturers and vendors that reduce environmental impacts in their production and distribution systems.”¹⁰
- “State purchases should be made so as to serve the broad, long-term financial interests of Oregonians, including ensuring that environmental, economic and societal improvements are made so as to enhance environmental, economic and societal well-being...State operations and purchases should reflect the efficient use and reuse of resources and reduction of contaminants released into the environment.”¹¹

Define Environmentally Preferable Purchasing

The most effective environmental purchasing policies are careful to explain that environmental purchasing is more than an emphasis on recycled content products. Many policies adopt the environmental purchasing definition introduced in a 1993 US Government Executive Order. It defines environmentally preferable products and services as “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. This comparison may consider raw materials acquisition, production, manufacturing, packaging, distribution, reuse, operation, maintenance, or disposal of the product or service.”¹²

While the definition cited above is clearly the most popular in the policies reviewed for this report, other variations on that definition are also used. A few examples are quoted below:

- Massachusetts defines environmentally preferable products and services as: “Commodities or Services that are less detrimental to the environment and human health than competing Commodities or Services serving the same purpose. Includes Commodities or Services that minimize waste, use recycled materials, conserve energy or water, or reduce the consumption or disposal of toxic materials.”¹³

⁸ Chapel Hill, North Carolina, *A Resolution Setting Standards for Post-Consumer Content in Recycled Paper Purchased By the Town of Chapel Hill*, 29 May 1996.

⁹ San José, California, *Environmentally Preferable Procurement Policy*, 25 September 2001.

¹⁰ Alameda County (California) Waste Management Authority and Source Reduction and Recycling Board, *Environmentally Preferable Purchasing Policy*, 9 July 2003.

¹¹ Oregon, *Oregon Sustainability Act*, July 2001.

¹² President of the United States, *Executive Order 12873, Federal Acquisition, Recycling and Waste Prevention*, 20 October 1993. Executive Order 12873 was superseded by *Executive Order 13101, Greening the Government Through Waste Prevention, Recycling, and Federal Acquisition* on 14 September 1998. It uses the original definition of environmental purchasing and strengthens some of the federal agency requirements.

¹³ Massachusetts, *801 CMR 21.00: Procurement of Commodities or Services, Including Human and Social Services*, 17 April 1997.

- Richmond, British Columbia, defines environmentally preferable products as those “that are more responsible to the environment in the way they are made, used, transported, stored and packaged and disposed of.”¹⁴
- The Mexican government defines green purchasing as “the incorporation of environmental criteria in procurement in order to decrease the environmental impact caused by the use of supplies in our offices. The goal is to avoid the consumption of environmentally harmful materials, to reduce the use of conventional items, and to give preference to those items whose components or processes have a lower environmental impact.”¹⁵
- Boulder, Colorado, defines an environmentally preferable product as “a material or product which 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 City’s potential environmental liability.”¹⁶
- Alameda County, California, defines them as “products that minimize environmental impacts, toxics, pollution, and hazards to worker and community safety to the greatest extent practicable.”¹⁷

Identify Desired Environmental Attributes

Some policies, such as the one used by the State University of New York at Buffalo (SUNY-Buffalo), include fairly extensive lists of environmental attributes they seek in the products and services they buy. They range from recycled-content recommendations to renewable energy requirements. Others use a smaller, but broader list of attributes. An Illinois Executive Order, for example, states, “environmental attributes may include but are not limited to energy efficiency, water conservation, toxics use reduction, conservation of natural resources and waste minimization.”¹⁸

Some of the most frequently cited environmental attributes include the following:

- Biobased
- Biodegradable
- Carcinogen-free
- Chlorofluorocarbon (CFC)-free
- Compostable
- Durable
- Energy efficiency
- Lead-free

¹⁴ Richmond, British Columbia, *Environmental Purchasing Policy*, undated, as cited in the city’s *Environmental Purchasing Guide*, February 2001.

¹⁵ Meléndez, Luz Aída Martínez, *Environmental Purchasing Policies and Priorities in Mexico*, March 2004.

¹⁶ Boulder, Colorado, *Environmental Purchasing Policy Directive*, 1993.

¹⁷ Alameda County (California) Waste Management Authority and Source Reduction and Recycling Board, *Environmentally Preferable Purchasing Policy*, 9 July 2003.

¹⁸ Illinois, *Executive Order Establishing the Green Illinois Government Coordinating Council*, 2000.

- 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
- Resource efficiency
- Upgradeable
- Water efficiency

Mexico’s environmental agency, Semarnat (*Secretaría de Medio Ambiente y Recursos Naturales*), takes things even further by also examining the environmental preferability of the companies that provide the goods and services it buys. Semarnat manages a Voluntary Environmental Audit Program (*Programa Voluntario de Auditoría Ambiental*) that evaluates the environmental performance of companies operating in Mexico. The program awards one of three ratings to companies meeting its environmental requirements—Environmental Compliance, Clean Industry, or Environmental Excellence. When making purchasing decisions, Semarnat tries to contract only with companies earning the Clean Industry or Environmental Excellence ratings.¹⁹

A few examples of the language policy writers have used to identify the environmental attributes are included below:

- SUNY-Buffalo’s pledges it “will seek to utilize to the fullest extent possible ‘environmentally friendly’ products which, to whatever extent possible, have the following attributes or qualities:
 - Durable, as opposed to single use or disposable items
 - Made of recycled materials, maximizing post consumer content
 - Non-toxic or minimally toxic, preferably biodegradable
 - Highly energy efficient in production and use
 - Can be recycled, but if not recyclable, may be disposed of safely
 - Made from raw materials obtained in an environmentally sound, sustainable manner
 - Manufactured in an environmentally sound, sustainable manner by companies with good environmental track records
 - Causing minimal or no environmental damage during normal use or maintenance
 - Shipped with minimal packaging (consistent with care of the product), preferably made of recycled and/or recyclable materials
 - Produced locally or regionally (to minimize the environmental costs associated with shipping)”²⁰

¹⁹ Meléndez, Luz Aída Martínez, *Environmental Purchasing Policies and Priorities in Mexico*, March 2004.

²⁰ State University of New York at Buffalo, *Environmentally Sound Products Procurement Policy*, 12 January 1993.

- Alameda County, California, looks for “products that include recycled content, are durable and long-lasting, conserve energy and water, use agricultural fibers and residues, reduce greenhouse gas emissions, use unbleached or chlorine free manufacturing processes, and use wood from sustainably harvested forests.”²¹
- The policy of Seattle, Washington, states that the “Environmental factors to be considered in selecting products include 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.”²²

Balance Environmental Considerations with Performance, Availability, and Cost Requirements

Some environmentally preferable products might have a slightly higher initial cost. Almost all of the policies address this potential issue using a variety of different strategies, including:

- Refusing to pay extra
- Providing some limited price flexibility
- Establishing price preferences
- Requiring life cycle cost evaluations
- Adopting “best value” purchasing principles

While many policies combine more than one of these strategies, each strategy is described independently in greater detail below.

Refusing to Pay Extra

Very few policies explicitly prohibit paying extra. Gaston County, North Carolina, for example, gives “preference to those products with higher levels of post-consumer recycled content...so long as the cost of the products...does not exceed the cost of similar products made from virgin materials.”²³ Most other policies, however, permit purchasers to balance price and environmental considerations in at least some circumstances.

Providing Some Limited Price Flexibility

A few policies simply acknowledge that there might be a price difference. San Mateo County, California, for example, states in its policy: “The County is aware that there [may be] an increased cost to purchase environmentally friendly products.”²⁴ The Canadian government takes a slightly more progressive perspective. It suggests the volume of government purchasing might eventually drive prices for more environmentally preferable products lower even if there is a slightly higher price initially. The policy language reads, “Government should lead by example. In light of the volume of government procurement, the government can play a significant role in promoting the development and marketing of green products and services. As demand for these

²¹ Alameda County (California) Waste Management Authority and Source Reduction and Recycling Board, *Environmentally Preferable Purchasing Policy*, 9 July 2003.

²² Seattle, Washington, *Environmental Program Manual*, undated.

²³ Gaston County, North Carolina, *Solid Waste/Recycling Gaston County – Buy Recycled Program*, 11 October 2001.

²⁴ San Mateo County, California, *Environmental Purchasing Policy*, 6 December 2000.

products and services increase their prices will drop and become more affordable to all consumers.”²⁵

Most policies, however, use language similar to that adopted by the Waste Management Authority in Alameda County, California. Its policy states, “Nothing contained in this policy shall be construed as requiring a purchaser 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.”²⁶ The phrase “reasonable price” gives purchasers some discretion about how much, if any, extra they are willing to pay.

Additional examples of this type of language include the following:

- “[P]reference [shall be] given to the purchase of environmentally preferable goods and materials whenever they perform satisfactorily and are available at a reasonable price.”²⁷
- “Nothing in the above provisions shall preclude state executive agencies from continuing to consider costs, availability and quality or performance specifications in making procurement decisions.”²⁸
- “The County of Nevada will purchase recycled content and environmentally preferable products unless such products do not perform satisfactorily and/or are unreasonably expensive.”²⁹

Establishing Price Preferences

Dozens of US policies give purchasers permission to pay between 3 and 15 percent extra for products meeting environmentally preferable criteria. None of the Mexican or Canadian policies, however, include price preferences. One Canadian purchaser explained that price preferences are not popular in Canada because they are believed to be counterproductive by providing manufacturers with an incentive to keep prices higher. Canadian purchasers, however, are more likely to use life cycle cost or best value purchasing strategies (described below) that allow purchasers to balance increased cost with increased environmental performance without resorting to price preferences.

While many US purchasers are also concerned price preferences are unnecessary or artificially inflate prices for safer products, they remain popular in jurisdictions that are traditionally required to award contracts to the lowest bidder. Establishing a price preference allows these jurisdictions to pay more for increased environmental performance if necessary even when they are normally prohibited from employing life cycle cost or best value purchasing strategies. Some of the jurisdictions permitting price preferences for more environmentally preferable products include:

²⁵ Public Works and Government Services Canada, *Treasury Board Advisory Committee on Contracts Working Group on Green Procurement Proposed Green Procurement Policy*, January 2003.

²⁶ Alameda County (California) Waste Management Authority and Source Reduction and Recycling Board, *Environmentally Preferable Purchasing Policy*, 9 July 2003.

²⁷ Manitoba, *Sustainable Development Procurement Guidelines*, 6 December 2000.

²⁸ Illinois, *Executive Order for State Government “Green Activities,”* 5 December 2001.

²⁹ Nevada County, California, *Nevada County Green Procurement and Sustainable Practices Policy*, 23 April 2002.

- Chatham County, North Carolina (up to 15 percent)
- Cincinnati, Ohio (up to 3 percent)
- Jackson County, Missouri (up to 15 percent)
- Kalamazoo County, Michigan (up to 10 percent)
- Kansas City, Missouri (up to 15 percent)
- San Diego County, California (up to 5 percent)

Other policies permit price preferences only for recycled-content products, including:

- Hendersonville, North Carolina (up to 15 percent)
- Indiana (up to 15 percent)
- King County, Washington (up to 10 percent for re-refined oil; up to 15 percent for paper)
- Minnesota (up to 10 percent)
- Morro Bay, California (up to 10 percent)
- New Jersey (up to 15 percent)
- Oregon (up to 5 percent)
- Pasquotank County, North Carolina (up to 10 percent)
- Phoenix, Arizona (up to 10 percent and up to 15 percent for paper)
- San Mateo County, California (up to 10 percent)
- Santa Barbara, California (up to 12 percent for paper)
- Santa Clarita, California (up to 10 percent)
- Ventura County, California (up to 10 percent for paper)
- Vermont (up to 5 percent)
- Washington (up to 10 percent)

It is important to note that even in communities that permit price preferences, they are not always used. Purchasers have discovered that prices are very competitive for many environmentally preferable products and that price preferences are unnecessary or even counterproductive. King County, Washington, for example, has elected not to make use of its available price preference.

Examples of the language used to establish a price preference includes the following:

- “The Purchasing Agency and the Solid Waste Division shall establish a price-preference of up to fifteen percent (15 percent) for recycled paper products and up to ten percent (10 percent) for re-refined lubricating oil.”³⁰
- “The Commissioner of Purchases shall establish a price preference of up to fifteen percent (15 percent) for recycled and other environmentally preferable products. This price preference shall be established in advance of any bid and may be modified from time to time in the discretion of the Commissioner of Purchases with the objective of maximizing the City’s purchase of environmentally preferable products to the extent practicable. Varying price preferences may be established for different products and for the same product from time to time, subject to the maximum fifteen percent (15 percent) limitation.”³¹
- “In invitations to bid designated by the city purchasing agent as an environmentally preferable comparison bid, the city purchasing agent, in determining the lowest and best bid, shall deem as favorable the fact that the bidding company offers supplies that contain recycled material, and shall select such bidder as the lowest and best bidder if its bid does not

³⁰ King County, Washington, *King County Recycled Product Procurement Policy*, 24 February 1995.

³¹ Kansas City, Missouri, *Green Purchasing Ordinance*, undated draft.

exceed by more than three percent to a maximum of \$10,000 any other lowest and otherwise qualified non-recycled bidder.”³²

- “The cost factor or purchase price for recycled products, or for more environmentally responsible items, should be consistent with a suggested variance of 10 percent above the market expense for similar non-recycled or less environmentally responsible items. Additional costs should be counter balanced by savings from improved usage procedures.”³³
- New Jersey defines a “competitive” price for recycled-content paper products as one that is “no more than 10 percent above the price of items which are manufactured or produced from virgin paper products, except that the director, upon consultation with the department, may make contracts available for recycled paper or recycled paper products at a price no more than 15 percent above the price of virgin paper products whenever the director determines that a 15 percent price preference is in the best interest of the State.”³⁴
- “Department Heads are advised that the purchase of some recycled products may exceed the costs of non-recycled products. This factor alone should not determine the purchase. Cost should be compared to the environmental benefits, performance quality, and the life cycle cost of the item considered. Generally, if the cost of the recycled product does not exceed the cost of the virgin equivalent product by more than the 10–15 percent departments are authorized to acquire the product. If however certain products contain even higher than average recycled content on the market for similar products, then the Department Head is authorized to pay even more than 10–15 percent above the cost of the comparable virgin material product. The price paid above the ‘base’ product cost should be directly proportional to the percentage of recycled material in the product.”³⁵

Requiring Life cycle Cost Evaluations

A few policies recognize that the total cost of a product or service extends beyond the initial purchase price. An energy-efficient air conditioner, for example, might be slightly more expensive initially, but the reduced costs of operating and maintaining it more than offset the initial cost difference. The Ventura County, California, *Green Procurement Policy* suggests, “Wherever feasible and appropriate, life cycle cost analysis should be used...to assist in selecting products and services. Cost shall be calculated over the life of the item and should consider final disposal and replacement costs, and not just initial, up-front costs. When comparing alternative products, the initial cost of the acquisition, as well as lifetime maintenance costs, operations costs, etc., should be considered in the analysis.”³⁶

Life cycle cost comparisons are integrated into purchasing policies in a variety of ways. A few examples include the following:

- “Product price comparison shall include life cycle costs considerations, when applicable.”³⁷

³² Cincinnati, Ohio, *Ordinance Number 141*, 4 May 1994.

³³ Kalamazoo County, Michigan, *Waste Reduction Policy*, 5 February 1991.

³⁴ New Jersey, *Executive Order Number 91*, 3 May 1993.

³⁵ Hendersonville, North Carolina, *Resolution Adopting the City of Hendersonville’s Buy-Recycled Policy*, 10 May 2001.

³⁶ Ventura County, California, *Green Procurement Policy*, 15 January 2002.

³⁷ Morro Bay, California, *City of Morro Bay Recycled Products Purchasing Policy*, 28 March 1994.

- Phoenix, Arizona’s hazardous materials purchasing policy directs purchasers to consider “The product’s net cost impact balanced against the value of lowering the environmental and employee safety and health risk to the city. Cost factors to be considered may include storage technologies, disposal of wastes or containers, or potential environmental cleanups needed due to accidental release(s). When comparing material costs, items such as employee safety and health, training and hazardous material management should be considered.”³⁸
- Boulder, Colorado’s environmental purchasing policy authorizes purchasing agents to “accept a bid which is not the lowest bid if (1) the lowest bid is for a non-recycled product and (2) a recycled content product meets the performance criteria specified, or (3) a bid other than the lowest bid meets the criteria for environmentally preferable products or services, or (4) a cost analysis conducted over the life and disposal of the product reveals lower total costs than are reflected in short-term analysis; or award a portion of the contract to bidders offering recycled content or environmentally preferable products.”³⁹
- Manitoba’s Procurement Policy requires “consideration of full cost accounting to ensure that no costs associated with the purchase decision or action, including externalized costs, are left unaccounted for.”⁴⁰

Adopting Best Value Purchasing Principles

More and more state and local governments are moving away from the “low-bid always wins” mentality and towards the more flexible “best value” approach. Best value allows purchasers to incorporate a broader variety of considerations, including performance and environmental attributes, when making purchasing decisions. Massachusetts and Oregon both have statutes encouraging best value purchasing and effectively incorporate environmental considerations as part of their evaluations.

- The Oregon statute that permits the use of best value purchasing states, “Competition exists not only in prices, but in the technical competence of suppliers, in their ability to make timely deliveries and in the quality and performance of their products and services and that a balance must exist.”⁴¹ Purchasers include environmental performance as one of the important indicators of a product or service’s overall desirability.⁴²
- The Massachusetts statute permitting best value purchasing defines best value as “the result of common sense Procurement decision-making consistent with the State’s Procurement Principles, which are to balance and support the achievement of: required outcomes, best quality economic value, timely performance, minimizing the burden on administrative resources, expediting simple or routine purchases, flexibility in developing alternative Procurement and business relationships, encouraging competition, encouraging the continuing participation of quality Contractors and supporting State and Department

³⁸ Phoenix (Arizona), *Interim Purchasing Policy for Hazardous Materials*, 2000.

³⁹ Boulder, Colorado, *Environmental Purchasing Policy Directive*, 1993.

⁴⁰ Manitoba, *Procurement Policy, Section 2.7.1, Green Procurement*, 20 June 2001.

⁴¹ Oregon, *Oregon Revised Statutes, 2001 Edition, Chapter 279—Public Contracts and Purchasing, Section 279.005*, 2001.

⁴² Pacific North West Pollution Prevention Resource Center and Beth Liddell, *Environmentally Preferable Purchasing (EPP) Programs and Strategies: Integrating Environmental and Social Factors into Procurement Practices*, 31 October 2003.

Procurement planning and implementation.”⁴³ The statute also defines environmentally preferable purchasing (using language similar to the definitions cited above), which allows purchasers to consider environmental considerations as part of their determinations of the “required outcomes” and “best quality economic value.”

Modify Existing Specifications

Many policies require purchasing agents to review specifications to remove language that might conflict with the desire to buy more environmentally preferable products. Toronto’s policy, for example, requires purchasing officials to “ensure that wherever possible specifications are amended to provide for the expanded use of environmentally preferred products such as: durable products, reusable products, energy efficient products, low pollution products, products (including those used in services) that contain the maximum level of post-consumer waste and/or recyclable content, and products that provide minimal impact to the environment.”⁴⁴

Other examples of this kind of policy language include the following:

- “In order to increase the development and awareness of environmentally sound products and services, City of Richmond staff will review their contracts and tender specifications for goods and services, to ensure that wherever possible and economically feasible, specifications are amended to provide for consideration of environmental characteristics.”⁴⁵
- “All City departments, in consultation with the City Purchasing office and the Environmental Affairs office, shall report annually regarding a review of existing product and services specifications to: (a) identify and eliminate any specifications that require the use of virgin products or exclude the use of recycled or environmentally preferable products, unless they can demonstrate to the satisfaction of the City Manager that such specifications are necessary to protect health and safety or that recycled or environmentally preferable products do not meet performance standards, unfairly eliminate competition, or are unreasonable in price, taking durability and liability into account; and (b) revise specifications, where appropriate, to include recycled content and environmentally preferable criteria...”⁴⁶
- “State agencies that have delegated purchasing authority shall develop product specifications to encourage vendors to offer environmentally preferable and recycled-content products. Specifications shall be written to ensure that they do not contain restrictive language or other barriers to purchasing environmentally preferable or recycled-content products, unless such specifications are necessary to protect public health, safety, or welfare.”⁴⁷

⁴³ Massachusetts, *801 CMR 21.00: Procurement of Commodities or Services, Including Human and Social Services*, 17 April 1997.

⁴⁴ Toronto, Ontario, *Environmentally Responsible Procurement Policy*, 27 October 1999.

⁴⁵ Richmond, British Columbia, *Environmental Purchasing Policy*, undated, as cited in Richmond’s *Environmental Purchasing Guide*, February 2001.

⁴⁶ Boulder, Colorado, *Environmental Purchasing Policy Directive*, 1993.

⁴⁷ North Carolina, *Executive Order 156, State Government Environmental Sustainability, Reduction of Solid Waste, and Procurement of Environmentally Preferable Products*, 20 July 1999.

- A western North Carolina council of governments' environmental purchasing policy establishes a committee to "Ensure that contracting procedures do not discriminate against reusable, recycled, or environmentally preferable products without justification."⁴⁸
- "As products come up for competition, all departments will review their relative specifications. This review is to determine whether existing specifications either require the use of products manufactured from virgin materials or excluded the use of recycled products, reusable products or products designed to be recycled."⁴⁹
- "All departments, offices and agencies shall evaluate their product specifications and purchasing documents and remove all obstacles feasible to buying recycled and source reduction products. Among the obstacles to be removed are: requirements for virgin materials only; language that excludes recycled products; unnecessary qualifications (e.g., High brightness levels for paper); specifications written to describe particular non-recycled products...; performance standards unrelated to actual need; "new" requirements that exclude remanufactured, reused or recycled content products."⁵⁰
- "Review specifications used in public bidding to eliminate barriers to recycled-content products such as outdated or overly stringent product specifications and specifications not related to product performance. All requests for proposals shall require vendors to use recycled products whenever possible."⁵¹

While not included in its environmental purchasing policy, the Commonwealth of Massachusetts regularly includes language in its contracts notifying vendors that the state reserves the right to substitute or add environmentally preferable products if they become available during the course of the contract. Such standard language includes, "The department and contractor(s) may negotiate during the contract term to permit the substitution or addition of Environmentally Preferable Products (EPPs) when such products are readily available at a competitive cost and satisfy the department's performance needs."⁵²

Empower a Green Purchasing Team

Many of the policies recognize that purchasing decisions involve participants from across the organization. Decisions are not made exclusively by the purchasing department. The end-users and specifiers play a very significant role. As a result, several of the policies establish "green teams" tasked with reducing the environmental impact of the organization's purchasing practices. While organized in a variety of different ways, green teams typically include a senior manager and representatives from the purchasing department; environmental, health and safety department; and end-users. Some green teams meet regularly; others meet only as needed. Mexico's Semarnat, for example, created a Sustainable Management Committee composed of

⁴⁸ Land-of-Sky Regional Council, *Environmentally Preferable Purchasing Resolution*, 1 July 2001.

⁴⁹ Hope Mills, North Carolina, *Recycled Product Procurement Policy*, 15 June 2001.

⁵⁰ Vacaville, California, *Source Reduction and Recycled Content Purchasing Policy*, April 2000.

⁵¹ Nevada County, California, *Nevada County Green Procurement and Sustainable Practices Policy*, 23 April 2002.

⁵² Deegler, Marcia, e-mail communication with author, dated 23 February 2004.

several high-ranking officials. It meets three times a year to focus on ways to improve the agency's environmental performance.⁵³

Some of the policies that specifically mention green teams include the following:

- “There is hereby created a Coordinating Committee on Environmentally Preferable Procurement to serve without compensation. It shall be the duty of the Coordinating Committee...to meet not fewer than ten times each year for the purpose of developing environmentally preferable procurement practices, coordinating the implementation of this Kansas City Environmentally Preferable Procurement Policy and recommending to the City Council, the Commissioner of Purchases, and the Environmental Management Director the ways and means of improving environmentally preferable procurement by the City, its departments, offices, agencies and contractors.”⁵⁴
- “The Department of Administrative Services shall appoint a Sustainable Supplier Council. In consultation with the council, the department, by June 2001, shall develop sustainability purchasing policies, targets and benchmarks for each of the following areas: paper products; building construction; cleaning products and coatings; general purpose motor vehicles and office furniture.”⁵⁵
- “The Green Procurement and Sustainable Practices Committee (Committee) is a volunteer group composed of members from a cross section of the County's agencies, departments and divisions. The Committee will assist the Recycling Coordinator, the Department of General Services and other agencies, departments and divisions in their efforts to implement this policy.”⁵⁶
- The Pittsburg, California, policy requires the city to “Establish a Recycled Products Committee, a voluntary committee of employees to determine the parameters of the recycled products and materials for the City.”⁵⁷

Identify Initial Priorities

A few early environmental purchasing policies failed to generate substantive changes in procurement practices because they failed to provide examples of more environmentally preferable products or services. This lack of clarity made it difficult to know where to begin. More recent policies identify specific priorities or task the purchasing department with developing a list of products.

⁵³ Meléndez, Luz Aída Martínez, *Environmental Purchasing Policies and Priorities in Mexico*, March 2004.

⁵⁴ Kansas City, Missouri, *Green Purchasing Ordinance*, undated draft.

⁵⁵ Oregon, *Executive Order 00-07, Development of a State Strategy Promoting Sustainability in Internal State Government Operations*, 17 May 2000.

⁵⁶ Nevada County, California, *Nevada County Green Procurement and Sustainable Practices Policy*, 23 April 2002.

⁵⁷ Pittsburg, California, *Recycled Products Procurement Policy*, May 1998.

Identify Commodity Areas

Almost every recent green purchasing policy prioritizes at least one commodity for immediate attention. Most mention or incorporate by reference the more than 50 recycled-content products identified by the US Environmental Protection Agency <www.epa.gov/cpg>. Many also mention the more than 35 energy-efficient products listed by the Energy Star program <www.energystar.gov>. In addition to recycled content and energy efficient products, policies frequently prioritize the following areas:

- Building renovation and new construction (LEED certified)
- Cleaning products and services (biodegradable, less hazardous)
- Furniture (refurbished)
- Hybrid electric or alternative fuel vehicles
- Landscaping products and services (less hazardous)
- Office products (recycled content, less hazardous)
- Paint (less hazardous)
- Paper (recycled content, process chlorine free)
- Pest management products and services (less hazardous)
- Products that do not contain persistent, bioaccumulative, toxic compounds
- Products that do not contain wood from endangered forests
- Renewable electricity
- Vehicle maintenance products and services (less hazardous)

Establish Lists of Approved Products

Several policies also require the development of a list of environmentally preferable products. A North Carolina executive order, for example, mandates that “the Division of Purchase and Contract shall prepare an electronic listing of all environmentally preferable and recycled-content products available on state contracts and make it available to all state agency purchasers.”⁵⁸

A few other policies use similar language:

- “[T]he Purchasing division will develop a preferred product and purchasing source list [and] purchasing goals for each product, defined as a percentage of total expenditures. Each department will use the preferred product and purchasing source list and purchasing goals for purchases made either through Purchasing or directly by the department.”⁵⁹
- “The Public Works Director shall coordinate the implementation of this policy. He/She will establish a list of recycled products that shall be purchased by all City departments whenever practicable and will develop the mechanism for maintenance, additions and deletions to the list of recycled products available for procurement. Maintenance of the list will include addition of new products containing recycled material as they become available and make available to departments specifications on the new product along with a list of suggested uses.”⁶⁰

⁵⁸ North Carolina, *Executive Order 156, State Government Environmental Sustainability, Reduction of Solid Waste, and Procurement of Environmentally Preferable Products*, 20 July 1999.

⁵⁹ Kitsap County, Washington, *Ordinance No. 233-1999, Prevention of Waste in County Government*, 26 April 1999.

⁶⁰ Exeter, California, *Recycled Products Procurement Policy*, undated.

- “Environmentally preferred materials that have been approved for use by one department can be purchased by other departments without additional documentation. Prior to changing to a different product, departments should evaluate the product’s ability to perform in the applicable work process and review previously conducted testing results... The Office of Environmental Programs and/or Personnel Department, Safety Section will have available a list of products that have been approved for other departments to consider, and are available for technical assistance.”⁶¹
- “The City Purchasing office and the Office of Environmental Affairs shall: (a) maintain and distribute to City departments a list of Target Environmental Procurement Products. This list... shall contain: (i) products which must be purchased as recycled content products and may not be purchased in virgin form; (ii) products which are available with recycled content or which meet the criteria for environmentally preferable products, which departments shall purchase whenever possible; (iii) provisions for exceptions in order to maintain health and safety, performance standards, and avoid undue financial hardship.”⁶²

Assign Responsibilities and Establish Deadlines

To ensure someone from each of the relevant departments is directly responsible for specific activities, several policies list the actions to be completed, assign responsibility, and establish deadlines for their completion. King County, Washington’s policy, for example, identifies responsibilities for the Purchasing Agency, Solid Waste Division, and all county agencies, departments, and offices.⁶³ Similarly, the Manitoba *Sustainable Development Procurement Guidelines* include a detailed list of responsibilities for the Procurement Services Branch, Pollution Prevention Branch, and for all other departments.⁶⁴

Other policies and policy language that assign specific deadlines and responsibilities include:

- Kansas City, Missouri’s draft *Green Purchasing Ordinance* outlines the requirements and responsibilities of the mayor, city manager, city council, the Commissioner of Purchases, the Environmental Management Department, the Coordinating Committee on Environmentally Preferable Procurement, and all departments, offices, and agencies.⁶⁵
- Mexico’s Semarnat assigns responsibility to the head of the Sustainable Management Program, which assists with the environmental preferability assessment as part of its annual office supply purchase.⁶⁶
- “Be it further resolved, that the County Administrator establish minimum recycled content standards for the purchase of designated products, incorporating State and Federal guidelines

⁶¹ Phoenix , Arizona, *Interim Purchasing Policy for Hazardous Materials*, 2000.

⁶² Boulder, Colorado, *Environmental Purchasing Policy Directive*, 1993.

⁶³ King County, Washington, *King County Recycled Product Procurement Policy*, 24 February 1995.

⁶⁴ Manitoba (Canada), *Sustainable Development Procurement Guidelines*, 6 December 2000.

⁶⁵ Kansas City, Missouri, *Green Purchasing Ordinance*, undated draft.

⁶⁶ Meléndez, Luz Aída Martínez, *Environmental Purchasing Policies and Priorities in Mexico*, March 2004.

and minimum content standards, and develop procedures to continuously evaluate product purchases for environmentally preferable alternatives...”⁶⁷

- “The Task Force shall designate an Environmental Purchasing Coordinator (hereinafter “the Coordinator”) to provide oversight to the Task Force, discuss with individual departments opportunities to increase environmental purchasing where relevant, coordinate outreach/training for staff, report to jurisdiction leadership, and provide general support to maintain the environmental purchasing program.”⁶⁸
- The sample policy developed by the National Association of Counties includes a standard format for establishing deadlines. Its recommendations include: “By (date), to the extent practicable, no janitorial cleaning or disinfecting products shall contain ingredients that are identified by the United States Environmental Protection Agency or the National Institute for Occupational Safety and Health as carcinogens, mutagens, or teratogens... By (date), (jurisdiction) shall not procure products that originate from rainforest hardwood or tropical wood... By (date), all construction and renovation projects...shall incorporate ‘green’ building practices.”⁶⁹

Reference Existing Environmental Labeling and Certification Programs

Given the inherent complexity of identifying more environmentally preferable products, some purchasing agencies are recognizing the validity of credible, third-party environmental standard organizations to establish standards and recommend products. A few green purchasing policies endorse this trend. While many policies mention the US federal government’s recycled-content and energy-efficiency programs, policies are also mentioning other standard setting and certification organizations. Illinois, for example, references Green Seal’s paint standard.⁷⁰ Boulder, Colorado, expresses a preference for wood products certified by the Forest Stewardship Council (FSC).⁷¹ The City of Richmond’s (British Columbia) policy states, “Consideration may be given to those environmental products that are certified by an independent accredited organization.” The text for the policy specifically mentions five programs—Environmental Choice, Green Seal, Energy Star, EnerGuide, and PowerSmart.⁷²

Information on environmental standard setting and certification organizations may be obtained at the following sites:

⁶⁷ Hennepin County, Minnesota, *Resolution No. 01-4-263*, 17 April 2001.

⁶⁸ National Association of Counties, *Sample Purchasing Resolution on the Procurement of Environmentally Preferable Products*, November 1999.

⁶⁹ National Association of Counties, *Sample Purchasing Resolution on the Procurement of Environmentally Preferable Products*, November 1999.

⁷⁰ Illinois, *Executive Order for State Government “Green Activities,”* 5 December 2001.

⁷¹ Pacific North West Pollution Prevention Resource Center and Beth Liddell, *Environmentally Preferable Purchasing (EPP) Programs and Strategies: Integrating Environmental and Social Factors into Procurement Practices*, 31 October 2003.

⁷² Richmond, British Columbia, *Environmental Purchasing Policy*, undated, as cited in Richmond’s *Environmental Purchasing Guide*, February 2001.

- Consumers Union <www.eco-label.org> – Evaluates the growing number of environmental labels against objective criteria to measure the validity of the label and the independence of the standard setting and certification organizations that are developing them.
- Electrical Energy Savings Trust (*Fideicomiso para el Ahorro de Energía Eléctrica*) <www.fide.org.mx> – Provides energy efficiency labeling information in Mexico.
- EnerGuide <<http://oee.nrcan.gc.ca/energuide/>> – Establishes energy efficiency guidelines for hundreds of consumer products.
- Energy Star <www.energystar.gov> – Develops energy efficiency guidelines for consumer products in more than 35 categories; thousands of products now carry the Energy Star label.
- Environmental Choice <www.environmentalchoice.com> – Establishes environmental standards and awards its eco-label to products meeting its standards; currently has more than 120 standards and hundreds of certified products.
- Forest Stewardship Certification <www.fscus.org> – Sets standards for “forest friendly” practices and, through independent verifiers, certifies forests that are managed consistent with its standards. Forest-based products that originate from FSC-certified forests are also eligible for FSC-certification.
- Green Seal <www.greenseal.org> – Establishes environmental standards and awards its "green seal of approval" to products meeting its standards. Green Seal has created environmental standards for more than 30 product categories and regularly publishes its *Choose Green Reports*, which evaluate the environmental impact of products and recommend products that appear to meet its standards.
- PowerSmart <www.bchydro.com> – Identifies energy-efficiency products and strategies to reduce energy consumption.
- Scientific Certification Systems <www.scs-certified.com> – Provides independent verification of environmental claims.

Create a Communications Plan and Promote Green Purchasing

An effective environmental purchasing program requires an organization to think differently about its purchasing decisions, which requires educating senior managers, the purchasing department, product specifiers, end-users, vendors, and, possibly, the general public. The policy of San Mateo County, California, acknowledges the importance of an effective communication strategy by recognizing that environmentally preferable purchasing “will require changes in awareness, behaviors, practices and procedures.”⁷³

The Kansas City, Missouri, draft *Green Purchasing Ordinance* emphasizes the importance of promoting green purchasing throughout the city government. It tasks various public officials to “publicize the progress of policy implementation,...inform departments, offices and agencies to review policy requirements and new procurement opportunities, and to monitor the status of

⁷³ San Mateo County, California, *Environmental Purchasing Policy*, 6 December 2000.

policy implementation product research results,...disseminate information on recycled and environmentally preferable product procurement opportunities, specifications, and performance to departments, offices and agencies,...[and] communicate with departments, offices and agencies to review policy requirements and new procurement opportunities, and to monitor the status of policy implementation product research results.”⁷⁴

Other policies include a variety strategies to promote green purchasing, including tasking departments to promote green purchasing; requiring contractors to adopt green purchasing; developing tools to make green purchasing easier; and creating incentive and award programs. Examples of each of these strategies are presented below.

Task Departments to Promote Green Purchasing

Lots of policies recognize the importance of promoting the policy’s objectives throughout the organization. Many of those policies task a department to invest time promoting environmental purchasing. Examples include:

- Nevada County, California, requires the purchasing department to “inform other agencies, departments and divisions of their responsibilities under this [environmental purchasing] policy and provide agencies, departments and divisions with information about recycled products and environmental procurement opportunities;...[and to] develop and implement an ongoing promotional program to educate and inspire County of Nevada staff to implement this policy. Information concerning this policy will be added to the new employee orientation process; [in addition, the purchasing department will] inform vendors of [the] Green Procurement and Sustainable Practices Policy.”⁷⁵
- The draft policy of San José, California, commits the city to “rais[ing] staff awareness on the environmental issues affecting procurement by providing relevant information and training” and commits each department and agency to “expand[ing] the awareness and use of environmentally preferable products.”⁷⁶
- The proposed policy for the Canadian federal government makes each department “responsible for ensuring that its personnel have sufficient training about the environment and green procurement to carry out the directives in [the green procurement] policy.”⁷⁷
- In Illinois, “the Department of Central Management Services, in collaboration with the Illinois Environmental Protection Agency and the Illinois Department of Commerce and Community Affairs, shall prepare educational materials and conduct outreach to promote acceptance of environmentally preferable products that have the potential for widespread applications throughout government operations.”⁷⁸

⁷⁴ Kansas City, Missouri, draft *Green Purchasing Ordinance*, undated.

⁷⁵ Nevada County, California, *Nevada County Green Procurement and Sustainable Practices Policy*, 23 April 2002.

⁷⁶ San José, California, *Environmentally Preferable Procurement Policy*, 25 September 2001.

⁷⁷ Public Works and Government Services Canada, *Treasury Board Advisory Committee on Contracts Working Group on Green Procurement Proposed Green Procurement Policy*, January 2003.

⁷⁸ Illinois, *Executive Order for State Government “Green Activities,”* 5 December 2001.

- Vermont’s environmental purchasing executive order requires: “Implementation of an education and information program, to be conducted by the Department of Environmental Conservation, to help state employees in the practice of resource conservation and pollution prevention, including environmentally-conscious procurement choices, reducing the use of products and materials, opportunities for reuse, and recycling requirements. It is the goal of this program to ensure that state employees understand the importance of their leadership roles and environmental responsibilities and are aware of opportunities to use resource conservation and pollution prevention practices in daily decisions.”⁷⁹

Require Contractors to Buy Green

Many organizations recognize that the most important way of promoting green purchasing is to require their contractors and vendors to also implement environmental purchasing principles within their own companies. It will be easier and even more affordable to buy environmentally preferable products when more organizations are seeking them. Some of the ways policies address this approach are included below:

- The draft Kansas City, Missouri, *Green Purchasing Ordinance*, for example, requires that: “All department, offices and agencies shall, whenever cost effective and to the extent reasonably practicable, use and require their contractors and consultants to use, environmentally preferable products....”⁸⁰
- “All requests for proposals shall require vendors to use recycled products whenever possible.”⁸¹
- “All bid documents shall include information on the City’s programs to buy recycled and environmentally preferable products. Vendors shall be encouraged to provide bids on products with recycled content or which meet criteria for environmentally preferable products wherever such products meet the performance criteria specified in bid documents.” The policy also states: “Unless otherwise specified, bidders and contractors shall use recycled paper and double-sided copying for the production of all printed and photocopied documents related to the fulfillment of City contracts and shall otherwise fully comply with the provisions of this policy.”⁸²
- “All Departments, Offices and Agencies shall use, and require their contractors and consultants to use, environmentally preferable products whenever cost effective and to the extent practicable.”⁸³
- “Making suppliers aware of the University’s Environmental Procurement Policy. Sending a clear message that the University will favour those suppliers whose products meet the environmental objectives of the University.”⁸⁴

⁷⁹ Vermont, *Executive Order 06-94, Establishing the Clean State Council*, 22 April 1994.

⁸⁰ Kansas City, Missouri, draft *Green Purchasing Ordinance*, undated.

⁸¹ Nevada County, California, *Nevada County Green Procurement and Sustainable Practices Policy*, 23 April 2002.

⁸² Boulder, Colorado, *Environmental Purchasing Policy Directive*, 1993.

⁸³ King County, Washington, *King County Recycled Product Procurement Policy*, 24 February 1995.

⁸⁴ Trent University, Ontario, *Environmental Procurement Policy*, 3 June 1993.

- “All City contractors and grantees shall be requested to conform to the minimum recycled-content procurement standards set forth by Environmental Affairs, a division of the Administrative Services Department. This request shall be applied to contractors and grantees in procuring materials or products to perform contractual services for the City, to produce or provide a work product in the City or on the city’s behalf, or to conduct work funded by a grant from the City....Any RFP or bids for services requested by the city will include a statement that the city prefers doing business with companies that adhere to our principles. In addition, it will request that any proposal submitted to the city shall be printed two-sided on recycled and recyclable paper with removable, reusable bindings or staples, and the percentage of post-consumer contractors producing reports for the city will submit such on (post-consumer) recycled and recyclable paper.”⁸⁵
- “Kitsap County shall provide written notice requiring its contractors and consultants to comply with the requirements of this ordinance while fulfilling contractual obligations to the County.”⁸⁶

In its contracts, the Commonwealth of Massachusetts requires vendors to work with state officials to evaluate opportunities to incorporate sustainable practices into their procedures. The practices include integrating fuel efficient hybrid-electric or alternatively fueled vehicles into their fleets when serving Massachusetts customers; using recycled-content or bio-based automotive lubricants; using recycled-content paper; and instituting a company-wide recycling program.⁸⁷

Develop Tools to Make Green Purchasing Easier

While lots of policies talk about promoting environmental purchasing principles as a way to make environmental purchasing easier, at least one actually requires the development of easy-to-use tools to make green purchasing even easier.

- Seattle’s policy holds “the Director of the [Executive Services Department]...responsible for establishing user-friendly tools to disseminate information to City staff about reusable, recycled content, recyclable, and otherwise environmentally preferable products; about vendors and City contracts for such products; and about user groups and other opportunities to test and discuss new products.”⁸⁸

Establish Incentives and Award Programs

Some organizations realize that employees are going to take environmental purchasing more seriously if they are rewarded for it. At least two policies specifically mention establishing awards or other incentives.

⁸⁵ Pittsburg, California, *Recycled Products Procurement Policy*, May 1998.

⁸⁶ Kitsap County, Washington, *Ordinance No. 233-1999, Prevention of Waste in County Government*, 26 April 1999.

⁸⁷ Deegler, Marcia, e-mail communication with author, dated 23 February 2004.

⁸⁸ Seattle, Washington, *Environmental Program Manual, Section 6.14 Environmentally Responsible Purchasing*, undated.

- Indiana’s policy states: “An awards program will also be established to recognize agencies and/or employees who implement additional procedures that positively impact the environment.”⁸⁹
- The US Environmental Protection Agency recommends: “Establishing incentive and award programs to recognize those people, teams, and interagency work groups who are most successful at promoting the purchase of environmentally preferable products.”⁹⁰

Develop Measurable Goals and Reporting Requirements

It is difficult to measure the effectiveness of a green purchasing policy unless performance measures are incorporated into the program from the very beginning. Some policies task the purchasing department with developing goals and mechanisms for evaluating progress. North Carolina, for example, tasks its purchasing department with reviewing “its sales report procedures and determin[ing] any changes needed to facilitate tracking of environmentally preferable and recycled products purchased by state agencies and others from term contracts.”⁹¹ This information is compiled in an annual report.

While almost all of the purchasing policies require an annual report, very few specify what is to be contained within the report. The policy of Kansas City, Missouri, is one exception. It requires an annual report that includes: “(i) A compilation of procurement data collected from all departments and other parties charged with implementation responsibility under this policy, (ii) An account of the current status of product evaluations conducted by departments, (iii) An assessment of procurement program effectiveness, an evaluation of program goals, and projections of future procurement opportunities, and (iv) Recommendations for changes in procurement policy.”⁹²

Some of the other policy language used to develop goals and reporting requirements includes the following:

- The US Environmental Protection Agency developed an extensive list of environmental purchasing goals. The goals include ensuring all new buildings meet the US Green Building Council’s <www.usgbc.org/leed> LEED silver standard, using cleaning products that meet the Green Seal <www.greenseal.org> standard, adopting integrated pest management methods, buying copy paper containing at least 50 percent post-consumer content that is also process chlorine free, “greening” all agency meetings, including environmental considerations for all electronic equipment purchases, buying alternative fuel vehicles exclusively, adopting green landscaping practices for all facilities, and adding at least one facility a year to the list of facilities buying renewable electricity.⁹³ The Agency also

⁸⁹ Indiana, *Executive Order 99-07 for Greening the Government*, 22 April 1999.

⁹⁰ US Environmental Protection Agency, *Final Guidance on Environmentally Preferable Purchasing, Appendix C—Sample Environmentally Preferable Purchasing Policy Directive*, undated.

⁹¹ North Carolina, *Executive Order 156, State Government Environmental Sustainability, Reduction of Solid Waste, and Procurement of Environmentally Preferable Products*, 20 July 1999.

⁹² Kansas City, Missouri, *Green Purchasing Ordinance*, undated draft.

⁹³ US Environmental Protection Agency, *Environmental Protection Agency Executive Order 13101 Goals for 2005 and 2010*, October 2002.

established 2002 as a baseline from which to quantify these and other environmental purchasing efforts.⁹⁴

- The proposed policy for the Canadian federal government requires tracking procedures that can be used to quantify the results of its efforts. It mandates all departments or agencies to “determine the contract dollar value (hereafter referred to as the threshold) above which a formal record is kept on file showing that environmental criteria were considered when [purchasing] requirements were defined.” It then requires that for all purchasing requirements “valued in excess of [the] threshold, a formal record of the evaluation will be kept on file. In the case where a green purchase was made, the record will list the environmental criteria included in the bid solicitation. In the case where a green product or service was not acquired, the reason for not selecting an environmentally preferable product or service will be documented.”⁹⁵
- Nevada County, California, requires the Green Procurement and Sustainable Practices Committee to work with other departments “in developing and implementing a monitoring and tracking system as a tool to confirm compliance with this policy.”⁹⁶
- “[The] annual report shall include but not be limited to the City purchase by type during the preceding fiscal year, the quantity and cost of products, and recommendations for the exclusion or addition of specific products pursuant to this policy.”⁹⁷
- Hendersonville, North Carolina, requires city departments in its policy to “note the percent of recycled content on their requisition forms. The Finance Department will track the purchases.”⁹⁸

Review Policy Regularly

To remain truly effective, policies should be reviewed regularly to ensure they are meeting the organization’s current needs. Regularly reviewing the environmental purchasing policy ensures the policy focus continues to reflect the organization’s environmental goals. It also allows the organization to strengthen the policy based on new information, to establish or adjust goals, and shift roles and responsibilities to increase program effectiveness. While a few policies require the policy to “be updated when necessary,”⁹⁹ at least two policies integrate a more specific timeline. These policies include:

- The draft policy of San José, California, requires that it to be reviewed “every three years.”¹⁰⁰

⁹⁴ Personal communication with Julie Shannon, US Environmental Protection Agency, in an e-mail dated 25 February 2004.

⁹⁵ Public Works and Government Services Canada, *Treasury Board Advisory Committee on Contracts Working Group on Green Procurement Proposed Green Procurement Policy*, January 2003.

⁹⁶ Nevada County, California, *Nevada County Green Procurement and Sustainable Practices Policy*, 23 April 2002.

⁹⁷ Morro Bay, California, *City of Morro Bay Recycled Products Purchasing Policy*, 28 March 1994.

⁹⁸ Hendersonville, North Carolina, *Resolution Adopting the City of Hendersonville’s Buy-Recycled Policy*, 10 May 2001.

⁹⁹ Alameda County Waste Management Authority and Source Reduction and Recycling Board, *Environmentally Preferable Purchasing Policy*, 9 July 2003.

¹⁰⁰ San José, California, *Environmentally Preferable Procurement Policy*, 25 September 2001.

- Manitoba, Canada, requires that “within five years from the adoption of the *Manitoba Sustainable Development Procurement Guidelines*, Manitoba will undertake a comprehensive review of the guidelines, goals and action plans.”¹⁰¹

While not stated in its official policy, Mexico’s Semarnat reviews its environmental purchasing policies as a routine part of its Sustainable Management Committee meetings, which are held every four months.¹⁰²

Concluding Remarks

As political and business leaders evolve in understanding the environmental impact associated with routine purchasing decisions, more and more organizations will be faced with establishing or improving formal environmental purchasing programs. Many of these will include written policies outlining program goals and objectives. The policy components identified in this report should help policy makers and purchasing officials develop or review the next generation of environmentally preferable purchasing policies. Copies of all of the policies referenced in this report, along with numerous additional policies and suggestions, are listed on the Center for a New American Dream web site at <www.newdream.org/procure>.

¹⁰¹ Manitoba, *Sustainable Development Procurement Guidelines*, 6 December 2000.

¹⁰² Meléndez, Luz Aída Martínez, *Environmental Purchasing Policies and Priorities in Mexico*, March 2004.

– Appendix One – Sample Environmental Purchasing Policy*

POLICY ESTABLISHING Organization Name'S PURCHASING PROGRAM FOR ENVIRONMENTALLY PREFERABLE PRODUCTS AND SERVICES

(Insert date here)

1.0 Purpose

Organization Name recognizes we are a large consumer of goods and services. Every one of our purchases has an environmental impact resulting from the combined impact of a product's manufacture, use, and disposition. As a result, every day, the purchasing decisions of our employees and contractors can positively or negatively affect the environment.

The goal of this policy is to reduce the adverse environmental impact of our purchasing decisions by buying goods and services from manufacturers and vendors who share our commitment to the environment. By including environmental considerations in our purchasing decisions, along with our traditional concerns with price, performance, and availability, we will remain fiscally responsible while promoting practices that improve public health and safety, reduce pollution, conserve natural resources, and reward manufacturers and vendors that reduce the adverse environmental impact of their production and distribution systems.

2.0 Defining Environmentally Preferable

Buying the most environmentally preferable alternative means Organization Name will seek products and services that have a reduced effect on human health and the environment when compared with competing products and services serving the same purpose. This comparison will consider all phases of the product's life cycle, including raw materials acquisition, production, manufacturing, packaging, distribution, operation, maintenance, and disposal, including potential for reuse or ability to be recycled.

In practice, this means seeking products that have reduced environmental impact because of the way they are made, used, transported, stored, packaged, and disposed of. It means looking for products that do not harm human health, are less polluting, and that minimize waste, maximize use of biobased or recycled materials, conserve energy and water, and reduce the consumption or

* **NOTE:** Please note that while all of the environmental purchasing policy features described throughout this report are included in this sample policy, they are not necessarily included in the same order or under the same headings as they are in the report due to some natural overlap among the headings. It should also be noted that when compiling this sample policy, it was assumed that more detailed policy language was preferable to more generic language. As a result and as briefly discussed in the introduction, this sample policy may be more detailed than is necessary to meet the needs of every organization. It is provided as a potential starting point when developing or updating an environmental purchasing policy. It is not intended as a substitute for a thoughtful policy development process during which the topics covered in this sample policy are discussed, debated, and analyzed for their applicability within an organization.

disposal of hazardous materials. When determining whether a product is environmentally preferable, the following environmental attributes should be considered:

- Biobased
- Biodegradable
- Carcinogen-free
- Chlorofluorocarbon (CFC)-free
- Compostable
- Durable
- Energy efficient
- Heavy metal free (e.g., no lead, mercury, cadmium)
- Less hazardous
- Locally manufactured
- Low volatile organic compound (VOC) content
- Low-toxicity
- Made from rapidly renewable materials
- Persistent, bioaccumulative toxic (PBT)-free
- Recyclable
- Recycled content
- Reduced greenhouse gas emissions
- Reduced packaging
- Refurbished
- Resource efficiency
- Reusable
- Upgradeable
- Water efficient

3.0 Balancing Environmental Considerations with Performance, Availability, and Financial Cost

Organization Name is committed to buying more environmentally preferable goods and services as long as they meet our performance needs and they are available within a reasonable period of time at a reasonable cost. Nothing in this policy shall be construed as requiring a purchaser 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 or in a reasonable period of time.

When comparing cost, *Organization Name* will not focus exclusively on the initial price. Instead, we will calculate and compare total costs over the life of the item, which includes the initial cost along with maintenance, operating, insurance, disposal, replacement, and potential liability costs. Examining life cycle costs will save money by ensuring we are quantifying the total cost of ownership before making purchasing decisions.

Organization Name recognizes that competition exists not only in prices, but also in the technical competence of suppliers, in their ability to make timely deliveries, and in the quality and performance, including environmental performance, of their products and services. Balancing these sometimes-competing factors means that initial cost is never the only consideration. It also means we will sometimes pay more for higher performing goods and services, including those with superior environmental performance.

4.0 Establishing an Environmental Purchasing Task Force

Within one month from the date this policy is enacted, the head of the Purchasing Department shall designate an environmental purchasing coordinator to lead an environmental purchasing task force and every department head shall assign a senior staff member to participate. The first task force meeting shall take place no later than one month after the appointment of the environmental purchasing coordinator. The task force shall meet at least six times each year.

The Task Force shall be responsible for:

- Providing assistance to the head of the purchasing department in reviewing all specifications to ensure they are amended to include environmental considerations.
- Tracking the development of environmental standards and specifications Organization Name can integrate into its purchasing specifications, including those developed by independent, well-respected organization such as Environmental Choice, Green Seal, or Energy Star.
- Developing written environmentally preferable purchasing recommendations and practices to clarify people's responsibilities under this environmental purchasing policy.
- Prioritizing a list of environmentally preferable purchasing goals and objectives.
- Identifying environmentally preferable purchasing opportunities.
- Developing metrics for measuring progress in implementing the goals of this policy.
- Preparing educational and outreach materials to promote understanding of Organization Name's environmental purchasing principles for all of the organization's departments, contractors, vendors, and staff.
- Training the purchasing and contracting staff and all senior managers to familiarize them with their responsibilities under this environmental purchasing policy.
- Training the entire Organization Name staff to ensure everyone is aware of our desire to buy more environmentally preferable goods and services from businesses sharing our environmental commitment, especially those individuals with permission to use Organization Name credit cards.
- Recommending ways to integrate adherence to the requirements of the environmental purchasing policy into employee performance reviews.
- Establishing an awards program to recognize the efforts of individuals and departments that are the most successful at implementing the goals of this policy.
- Preparing an annual report documenting Organization Name's efforts to buy more environmentally preferable goods and services. The report shall identify Organization Name's environmental purchasing goals and track progress towards meeting them. It shall also include: (1) a list of all products and services for which Organization Name has incorporated environmental considerations; (2) the volume spent, quantity purchased, or general purchasing trends for each of the products and services based on actual purchasing data or a scientifically valid sampling method explained in the report; (3) a list of products and services for which Organization Name is developing environmental specifications; (4) an assessment of the environmental purchasing program's effectiveness, an evaluation of program goals, and projections of future procurement opportunities; and (5) recommendations for changes to the environmental purchasing policy.

5.0 Establishing Initial Priorities

Within six months of the date this policy is enacted, the environmental purchasing task force shall complete an examination of *Organization Name*'s purchases of the following commodities and, based on anticipated purchasing needs and volumes, prioritize its efforts to integrate environmental considerations into their purchase:

- The more than 50 recycled content products designated by the US Environmental Protection Agency <www.epa.gov/cpg>
- The more than 35 energy-efficient products listed by the Energy Star program <www.energystar.gov>.
- The biobased products designated by the US Department of Agriculture <www.ars.usda.gov/bbcc>
- Building renovation and new construction
- Cleaning products and services
- Furniture
- Hybrid electric or alternative fuel vehicles
- Landscaping products and services
- Paint and painting services
- Paper (beyond the initial recycled-content requirements)
- Pest management products and services
- Renewable electricity
- Vehicle maintenance products and services

6.0 Reviewing Existing Specifications, Solicitation Language, and Purchasing Regulations

Within six months from the date this policy is enacted, the head of the purchasing department shall ensure procedures are in place to review every upcoming procurement so that wherever possible specifications, solicitation language, and purchasing regulations are amended to expand the use of more environmentally preferable products.

The review must ensure the following:

- All generic solicitation language, purchasing regulations, and procedures shall be reviewed to ensure they do not conflict with the goals of this environmental purchasing policy.
- All products for which the US Environmental Protection Agency (EPA) has developed recycled-content recommendations <www.epa.gov/cpg> shall be required to meet or exceed EPA's recommended recycled content percentages unless costs are prohibitive or other environmental considerations are more important.
- All products for which the federal Energy Star program has developed energy-efficiency standards <www.energystar.gov> shall be required to meet or exceed the Energy Star standard unless costs are prohibitive or other environmental considerations are more important.
- All products for which the US Department of Agriculture (USDA) has developed biobased recommendations <www.ars.usda.gov/bbcc> shall be required to meet or exceed USDA's recommended biobased percentages, unless costs are prohibitive or other environmental considerations are more important.

- All products and services for which the Environmental Choice <www.environmentalchoice.com> or Green Seal <www.greenseal.org> standard setting organizations have established standards shall be required to meet or exceed those standards unless costs are prohibitive or other environmental considerations are more important.
- All products and services selected by the environmental purchasing task force shall be required to meet or exceed the task force recommendations unless costs are prohibitive.

7.0 Promoting Environmental Purchasing

Every department shall ensure its employees are familiar with the educational and outreach materials developed by the environmental purchasing task force.

Every department is responsible for ensuring its employees, contractors, and vendors are aware of *Organization Name*'s desire to buy more environmentally preferable goods and services from companies sharing our environmental commitment.

Every department is responsible for ensuring that any of its employees who have been issued credit cards are fully aware of their responsibilities under this policy. No purchase, including those made on *Organization Name* credit cards, is exempt from this policy.

Every department shall also require their contractors and consultants to use environmentally preferable products whenever cost effective and to the extent practicable for all work completed on behalf of *Organization Name*.

8.0 Reviewing the Policy

Within five years from the adoption of this environmentally preferable purchasing policy, *Organization Name* will undertake a comprehensive review of the guidelines, goals, and action plans.

– Appendix Two – Environmental Purchasing Definitions

The definitions included below reflect some of the most frequently defined terms and definitions used in the purchasing policies reviewed for this report.

Acute toxicity – Capable of producing illness from a single dose or minimal exposure.

Bioaccumulate – Ability of some substances to collect in plant and animal tissue. These substances increase in concentration as they pass through the food chain when the plants and animals are consumed by larger animals (such as humans).

Biobased product – Products produced from renewable plant and animal sources. They are generally presumed to be more environmentally benign than their petroleum based counterparts, although this is not necessarily true. They are usually biodegradable and can be returned to the earth at the end of their useful life or recycled and used again. As defined by the US Farm Security and Rural Investment Act (FSRIA), a biobased product is a product determined by the US Secretary of Agriculture to be a commercial or industrial product (other than food or feed), that is composed in whole or in significant part, of biological products or renewable domestic agricultural materials (including plant, animal, and marine materials) or forestry materials.

Biodegradable – The ability of a substance to decompose in the natural environment into harmless raw materials. To be truly biodegradable, a substance or material should break down into carbon dioxide (a nutrient for plants), water, and naturally occurring minerals that also do not cause harm to the ecosystem. In terms of environmental benefits, a product should take months or years, and not centuries, to biodegrade.

Buyer – Anyone authorized to purchase on behalf of the organization or its subdivisions.

Carcinogen – A substance known to cause cancer in humans.

Chlorine free – Manufactured without chlorine or chlorine derivatives.

Chlorofluorocarbons (CFCs) – Any of a group of compounds that contain carbon, chlorine, fluorine, and sometimes hydrogen and have been used as refrigerants, cleaning solvents, aerosol propellants and in the manufacture of plastic foams. The use of CFCs are being phased out because they destroy the planet's stratospheric ozone protection layer.

Chronic health risks – Detrimental, long term health effects from repeated exposure to a product.

Chronic toxicity – Capable of producing illness from repeated exposure.

Compostable – A product that can be placed into a composition of decaying biodegradable materials and eventually turn into a nutrient-rich material. It is synonymous with "biodegradable," except it is limited to solid materials. (Liquid products are not considered compostable.)

Cooperative purchasing – System for allowing organizations to combine their purchasing power in order to negotiate better prices and reduce the purchasing costs of a formal bid process.

Durable – A product that remains useful and usable for a long time without noticeable deterioration in performance.

Energy efficient product – A product that is in the upper 25 percent of energy efficiency for all similar products, or that is at least 10 percent more efficient than the minimum level meeting US federal government standards.

Environmentally preferable products and services – Products and services that have a lesser or reduced effect on human health and the environment when compared with competing products and services that serve the same purpose. This comparison may consider raw materials acquisition, production, manufacturing, packaging, distribution, reuse, operation, maintenance and/or disposal of the product or service.

Flashpoint – The minimum temperature at which a liquid gives off a vapor in sufficient concentration to ignite.

Full-cost accounting – Accounting for the economic, environmental, land use, human health, social and heritage costs and benefits of a particular decision or action to ensure no costs associated with the decision or action, including externalized costs, are left unaccounted. (Compare with Life cycle Cost and Product Life cycle.)

Greenhouse gases – Any of several dozen heat-trapping trace gases in the earth's atmosphere that absorb infrared radiation. The two major greenhouse gases are water vapor and carbon dioxide; lesser greenhouse gases include methane, ozone (O₃), CFCs, and nitrogen oxides.

LEED rating system – A self-assessment system developed by the US Green Building Council <www.usgbc.org> for rating the environmental preferability of new and existing commercial, institutional, and high-rise residential buildings.

Life cycle cost – The amortized annual cost of a product or service, including capital costs, installation costs, operating costs, maintenance costs, and disposal costs discounted over the lifetime of the product or service. (Compare with Product Life cycle.)

Material Safety Data Sheet (MSDS) – Written or printed material about a product that includes information on the product's physical and chemical characteristics; physical and health hazards; exposure limits; whether the product contains carcinogenic ingredients above a certain threshold; precautions for safe handling and use; control measures; emergency and first aid procedures; the date of preparation of the MSDS or the last change to it; and the name, address, and telephone number of the manufacturer.

Mutagen – Substance that causes mutations, changes to genetic material in the body.

Persistent, bioaccumulative, toxic compounds (PBTs) – Toxic chemicals that persist in the environment and increase in concentration through food chains as larger animals consume PBT-laden smaller animals. They transfer rather easily among air, water, and land, and span boundaries of programs, geography, and generations. As a result, PBTs pose risks to human health and ecosystems. They are associated with a range of adverse human health effects,

including effects on the nervous system, reproductive and developmental problems, cancer, and genetic impact. They include heavy metals and chemicals such as mercury, dioxins, and PCBs (polychlorinated biphenyls).

Post-consumer recycled content – Percentage of a product made from materials and byproducts recovered or diverted from the solid waste stream after having completed their usefulness as consumer items and used in place of raw or virgin material. Post-consumer recycled content includes materials (such as paper, bottles, and cans) collected for recycling.

Practicable – Sufficient in performance and available at a reasonable price.

Preconsumer materials – Recovered materials that were production finished materials, products or byproducts that did not reach the consumer for whose use they were intended, and have been diverted from the solid waste stream for the purposes of collection, recycling, and disposition.

Price preference – A percentage by which offered prices for recycled products are reduced for purposes of bid evaluation. For example, under a 10 percent price preference, if a bid of \$1.00 per unit is received for an environmentally preferable product meeting specifications, the bid price will be reduced by \$0.10 (10 percent) and evaluated as though it had been \$0.90. If this bid results in a contract award, the price actually contracted will be the bid price of \$1.00 per unit.

Product life cycle – The culmination of environmental impacts for a product, including raw material acquisition, manufacturing, distribution, use, maintenance, and ultimate disposal of the product. (Compare with Life cycle Cost.)

Recyclable product – A product that after its intended end use can be diverted from the solid waste stream for use as a raw material in the manufacture of another product.

Recovered materials – Waste materials and by-products that have been recovered or diverted from the solid waste stream.

Recycled materials – Material and byproducts that have been recovered or diverted from solid waste and have been utilized in place of raw or virgin material in manufacturing a product. It is derived from post-consumer recycled materials, manufacturing waste, industrial scrap, agricultural waste, and other waste material, but does not include material or byproducts generated from, and commonly reused within, an original manufacturing process.

Refurbished product – A product that has been completely disassembled and restored to its original working order while maximizing the reuse of its original materials.

Renewable materials – Materials made from plant-based feedstock capable of regenerating in less than 200 years such as trees and agricultural products. Rapidly renewable resources, such as grain-based feedstocks, regenerate in less than two years.

Sustainable – An action is sustainable if it satisfies present needs without compromising the ability of future generations to meet their needs.

Teratogen – A substance that adversely affects fetal development.

Upgradeable product – The ability to increase a product's performance or features without replacing the product.

Virgin material – Any material occurring in its natural form. Virgin Material is used in the form of raw material in the manufacture of new products.

Volatile organic compounds (VOCs) – Chemicals that readily evaporate and contribute to the formation of air pollution when released into the atmosphere. Many VOCs are classified as toxic and carcinogenic.

Water efficient – A product that is in the upper 25 percent of water efficiency for all similar products, or that is at least 10 percent more efficient than the minimum level meeting US federal government standards.

– Appendix Three – Bibliography

All of the policies and resources listed below are available on the Institutional Purchasing web site maintained by the Center for a New American Dream at <www.newdream.org/procure/policy>.

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