

Appendix 26

Environmentally Preferred Purchasing Toolkit

- **City of Phoenix Environmentally Preferred Purchasing (EPP) Policy**



City of Phoenix

Environmentally Preferable Purchasing (EPP) Policy

I. Policy Statement

The city of Phoenix shall purchase products and services that have a reduced effect on human health and the environment when compared to competing products or services that serve the same purpose, while remaining fiscally responsible.

II. Scope

- A. Through adoption of this policy, the city strives to:
- protect the health and well-being of employees and residents
 - reduce costs and potential liability associated with the use of hazardous materials
 - reduce the city's green-house gas (GHG) emissions
 - improve air quality
 - protect quality of ground and surface waters
 - reduce the city's overall consumption of natural resources
 - support manufacturers and vendors whose products and services reduce environmental and human health impact
 - encourage other entities to adopt similar policies and programs
- B. This policy applies to all commodity purchases made through a purchase order or city contractual agreement, as well as non-professional service contracts and purchases related to capital improvement projects. Departments will evaluate the potential for EPP attributes, which include:
- reduced toxicity and hazards
 - energy efficiency
 - renewable (or alternative) energy or fuels
 - water efficiency
 - recovered-materials content (recycled-content or remanufactured)
 - bio-based (contains agricultural fibers or residues)
 - sustainable forestry certified
 - other resource-conserving attributes such as reduced packaging, increased durability or product life, recyclability, reusability, and waste diversion
 - green building and low-impact development
- C. Standards, certifications (or eco-labels) and certifying parties acceptable under this policy include:
- those created or endorsed by government agencies, such as the Environmental Protection Agency's (EPA) Energy Star program, or

- non-profit organizations and standards widely recognized by government agencies, such as the U.S. Green Building Council and the LEED Rating Systems; or
 - those that comply with American National Standards Institute (ANSI) Essential Requirements; or
 - those that meet the international standards for eco-labeling in *ISO 14020/4: Environmental Labels and Declarations*, including Green Seal and the Forest Stewardship Council.
- D. Product and service comparisons should consider costs, potential impacts on the environment, and employee and community health and safety over the entire product lifecycle including manufacture, transportation, storage, use, and disposal. This is often referred to as life cycle cost analysis. A form is available from OEP.
- E. To be considered, EPP products and services must comply with local, state or federal requirements, perform adequately for their intended use, abide by adequate competition requirements, and be available at a reasonable price in a reasonable period of time.
- F. The policy will also ensure compliance with federal regulations which may apply when various federal funding entities are involved.

III. Regulations

- A. 40 CFR Part 247 - *Comprehensive Procurement Guideline for Products Containing Recovered Materials* (RCRA Section 6002).
- B. 7 CFR Part 2902 – *Guidelines for Designating Biobased Products for Federal Procurement*.
- C. 10 CFR Part 436 – *Federal Procurement of Energy Efficient Products*
- D. National Energy Conservation Policy Act (NECPA) Section 543 - *Energy Independence and Security Act (EISA) of 2007*.
- E. Federal Aviation Administration (FAA) Acquisition Management Policy, Section 4.8 – *Environmental, Occupational Safety & Health, and Energy Considerations*
- F. City of Phoenix Resolution 20519 - *A Resolution of the City of Phoenix on Environmentally Preferable Purchasing*, July 2, 2007.
- G. City of Phoenix Administrative Regulation 2.314, *Hazardous Materials Owned by the City of Phoenix*.

IV. Roles and Responsibilities

- A. Office of Environmental Programs (OEP) Responsibilities:
 - 1. Coordinate the city's EPP Program.
 - 2. Research and advise regarding existing and developing EPP standards, specifications, and products which comply with this policy.
 - a. Meet with vendors to review proposed EPP products/services. Based on product type and review of environmental attributes, information may be forwarded to the appropriate departmental EPP Liaisons. EPP Liaisons shall have opportunity to decline being contacted directly by such vendors.
 - b. Provide technical assistance such as product data review, material safety data sheet review, EPP standards research and review, or participation in product evaluations.

- c. Provide guidance to departments on implementation of policy and incorporation of EPP specifications into contracts.
 - d. Communicate to city staff information required for implementation of this policy
 - e. Check for opportunities to implement EPP during the Environmental Facility Assessment (EFA) process and provide technical assistance as needed.
3. Maintain city EPP websites and list-serve.
 4. Provide businesses with referrals to other city business assistance programs.
 5. Provide EPP training for city staff and community outreach, when applicable.
- B. Departmental Responsibilities:
1. Consider and choose EPP products wherever feasible. Consideration may or may not include comparisons of product performance based on field trials. A form is available from OEP.
 2. Appoint a representative to serve as the departmental EPP Liaison, who will serve as the primary departmental point of contact for OEP and Finance on issues related to EPP opportunities, product evaluations, and the EPP program.
 3. Ensure EPP training is conducted for EPP Liaisons and staff who approve purchases or draft scopes of work or specifications for contracts. Training is offered through the Employee Development Catalog and is available to all staff.
- C. Finance Department (Procurement Division) Responsibilities:
1. Where applicable, coordinate with OEP and the procuring department to ensure appropriate EPP specifications are included in solicitations, using the procedure outlined below.
 2. Document efforts to use EPP on applicable contracts within the EPP commodity groups identified by OEP.
 3. Ensure that bidders provide environmental attributes data and certify accuracy of such claims in formal competitive bids.
 4. Ensure buyers attend EPP training, which is available through the Employee Development Catalog, or may be conducted onsite by OEP.

V. Procedure

- A. General Requirements:
1. Where EPP products or services are available, perform adequately, and are comparable in cost to non-EPP alternatives over the entire lifecycle, city staff shall choose such products or services. Qualified eco-labels and standards are identified in Section VI (Specifications) of this policy and should be used to make purchasing decisions. Staff may use the city [EPP intranet website](#), OEP, or other resources, as necessary.
 2. Finance Procurement Division and the procuring department shall document consideration of EPP for requirements contract solicitations (new or renewal) within any of the EPP commodity groups identified by OEP, whether or not successfully implemented. A form is available from OEP.
 3. Departments shall have a process in place for review and approval of hazardous materials purchases, before bringing such materials onsite, as outlined in the Hazardous Materials Purchasing Policy. A form is available from OEP.

B. Contracts Process

1. Annually, by June 1st, Finance Procurement shall provide OEP a list of all contracts expiring within the following fiscal year.
2. Annually, by July 1st, OEP shall provide Finance Procurement a list of the contracts expiring within the next year where an EPP product or specification exists (EPP contracts).
3. Finance Procurement staff will notify OEP whenever beginning work on an EPP contract from the expiring contracts list.
4. Prior to each contract expiration date, OEP shall provide the following to the Finance Procurement buyer, the departmental contract manager, and the EPP Liaison:
 - For solicitations, appropriate EPP specifications as outlined in Section VII of this policy, or
 - For contract extensions, suggested EPP products for addition to the existing contract (where allowable), or for potential supplemental bid.
5. For new solicitations within any of the identified EPP commodity groups, Finance Procurement shall notify OEP as soon as the information is available. OEP shall provide suggested EPP specifications to the buyer and departmental EPP contract manager and/or EPP Liaison.
6. OEP will assist departments make final determination of EPP product specifications to be included in contract solicitations, considering availability of product, cost, performance requirements, and compliance with this policy. Staff may also use the city [EPP intranet website](#), or other resources, as necessary.
7. Where necessary, departments will conduct product performance evaluations prior to inclusion of EPP specifications.

VI. Specifications

A. Hazardous Materials – Toxicity and Hazards Reduction

1. **Certified Products (Buy these)** - Products certified to a [Green Seal standard](#), qualified under [EPA's Design for the Environment \(DfE\)](#) program, or registered as bronze or better under the [Electronic Products Environmental Assessment Tool \(EPEAT\)](#) meet rigorous environmental standards for reduced toxicity and should be selected whenever available. When selecting these products, city staff is not required to review product technical data for compliance with the other criteria in this policy, saving time and effort. These certifications and applicable preferred product types include:
 - [EPA Design for the Environment \(DfE\)](#): cleaning & maintenance products
 - [EPEAT](#): desktop and notebook computers and monitors
 - [Green Seal GS-11](#): *Paints and Coatings*
 - [Green Seal GS-34](#): *Cleaning and Degreasing Agents*
 - [Green Seal GS-36](#): *Adhesives for Commercial Use*
 - [Green Seal GS-37](#): *Cleaning Products for Institutional Use*
 - [Green Seal GS-40](#): *Floor Care Products for Industrial & Institutional Use*

In lieu of requirement for logo use on product label and official certification under one of the programs above, a certified statement from vendor indicating that product meets the criteria of the applicable standard shall be accepted as proof of compliance if supporting analytical test data are available to the city upon request.

2. **Products with preferred properties (Buy these):** Chemical products purchased by the city and not certified under one of the programs above should have the following properties, except in cases where it can be demonstrated that there is no feasible alternative:
 - pH value greater than 2.5 and less than 12 (for undiluted product)
 - flash point greater than 150 degrees F (for undiluted product)
 - stable, non-reactive
 - National Fire Prevention Association (NFPA) or Hazardous Materials Identification System (HMIS) rating of 2 or less in each category
 - less than 0.5% phosphates, as used
 - equal to or less than 50 g/L or 5% by weight volatile organic compound (VOC) content. Alternatively, the California Air Resources Board's maximum allowable VOC limit for consumer products (listed at California Code of Regulations 94507-94517) may be used to qualify the product as EPP.
 3. **Products to avoid** - The city and its contractors shall avoid using chemical products and hazardous materials which contain any of the following at levels which may be regulated as hazardous waste or cause an employee overexposure, unless there is no feasible alternative:
 - carcinogens and reproductive toxins
 - persistent bioaccumulative toxins (PBTs), including lead, mercury, dioxins, and furans
 - ozone-depleting substances such as chlorofluorocarbons (CFCs)
 - heavy metals and toxins listed in RCRA hazardous waste regulations (40 CFR 261.24)
 - polybrominated flame retardants
 4. Pesticide service contracts shall implement the principles of Integrated Pest Management (IPM), to the extent possible. See city's [Pesticide Management Program](#) guidelines in the Hazardous Materials Management Program manual.
- B. *Recovered Materials*
1. Recycled Content – Products compliant with the [EPA Comprehensive Procurement Guidelines \(CPG\)](#) shall be specified and purchased, at a minimum, for product categories covered by the Guidelines. Products with the maximum possible post-consumer content and total recovered materials content are preferred. For CPG commodities where the city purchases in excess of \$10,000 per year using federal funds, if recovered materials are not procured, it should be documented why selection of recovered-materials products was not feasible.
 2. Remanufactured products and refillable products, where available and performance is adequate, are preferred. (e.g., remanufactured ink cartridges)
 3. Rechargeable batteries and associated products should be purchased wherever possible, instead of disposable batteries.
- C. *Energy Efficiency* – Products shall be qualified under the [Energy Star Program](#), where the product category is eligible. Those products which are not eligible under the Energy Star Program shall meet minimum [Federal Energy Management Program \(FEMP\) requirements](#).

- D. *Water Efficiency* - Products shall be certified and labeled under the [EPA WaterSense](#) partnership program, where applicable.
- E. *Renewable Energy and Fuels* –
1. Biodiesel-B20, E85 (ethanol/gasoline), or other renewable or alternative fuels are preferred. Equipment which uses renewable energy or alternative fuels shall be used, wherever feasible.
 2. Renewable energy sources and equipment which produce or use such energy are preferred and shall be used wherever possible. These include solar energy (photovoltaic), wind power, and gas-to-energy (created from waste methane).
- F. *Sustainable Forestry* – Wood products and materials shall be [Forest Stewardship Council certified](#) wherever feasible and economically viable. Wood, wood composite, and agrifiber products purchased for indoor use shall not contain urea-formaldehyde resins.
- G. *Bio-based Products*
1. Wherever available, preference shall be given to products which carry the United States Department of Agriculture (USDA) Certified Bio-based Product logo, or products which are designated by the USDA in the Biopreferred catalog (www.biopreferred.gov) for federal procurement preference.
 2. Bio-based compostable plastic products such as bags, films, disposable food and beverage containers and cutlery, shall be specified whenever feasible. Vendors shall provide certification that products conform to the American Society for Testing and Materials (ASTM) D6400 or D6868 Standard Specification for Compostable Plastics. Certification by the Biodegradable Products Institute (BPI) may be used to demonstrate conformance to the ASTM standards.
- H. *Other Resource Conservation, Recovery, and Reuse*
1. Durable products which can be disassembled, reused, recycled, or remanufactured, as well as services which provide or support such recycling and recovery of materials, are preferred.
 2. Vendors and services with take-back programs (e.g. carpet or computer take-back programs) used by the city shall adequately demonstrate responsible recycling programs. Responsible recycling programs for electronics can be demonstrated by certification or compliance with a voluntary electronics recycling standard such as e-Stewards [Standard for Responsible Recycling and Reuse of Electronic Equipment](#), EPA's [Plug-in to e-Cycling: Guidelines for Materials Management](#), or an ISO 14001 environmental management system.
 3. Products with reduced packaging, recyclable packaging, and/or shipping container take-back programs shall be selected whenever they are available.
 4. Where hard-copy bids and other documentation are required, vendors shall submit such printed materials on double-sided paper.
- I. *Green Building and Low-Impact Development Practices*
1. To the extent practical, credits from the US Green Building Council's (USGBC) [Leadership in Energy and Environmental Design for New Construction \(LEED-NC\)](#) Rating System should be incorporated into all materials procurement associated with new facility constructions and major renovations. All new city facilities constructed using general bond fund money after 2005 are required to meet the requirements of the LEED-NC basic certification level.

2. For existing facility operations and maintenance, the maximum possible credits from USGBC's [LEED for Existing Buildings: Operations & Maintenance](#) Rating System should be incorporated into procurement of materials, supplies and services.
3. Incorporate [Low-Impact Development \(LID\)](#) features into all infrastructure capital improvement projects, to the extent possible.

VII. Definitions

ANSI or American National Standards Institute means the non-profit organization which develops, promulgates, and facilitates accreditation with voluntary consensus standards. ANSI's Essential Requirements standard establishes guidelines for standards and certifications developed by third-parties.

Bio-Based means commercial or industrial products (other than food or feed) that contain agricultural crops or residues but does not include products made from forestry materials. At 7 CFR Part 2902, the USDA specifies minimum percentages that a product shall contain for the agency to consider the product bio-based.

Biodiesel B20 means a fuel mixture consisting of 80% petroleum-based diesel and 20% vegetable-oil-based diesel. It can be used in most standard diesel equipment without any equipment modifications.

Chemical means any element, chemical compound, or mixture thereof, excluding any article which under normal conditions of use does not release more than trace quantities of material and does not present an exposure potential.

Carcinogen means a substance known to cause cancer in humans, according to the International Agency for Research on Cancer, the U.S. National Toxicology Program, or the American Conference of Governmental Industrial Hygienists.

Certified Bio-based means a product which qualifies for the USDA's voluntary logo program for bio-based products meeting minimum agricultural-content standards. Products which carry the USDA Certified Bio-based Product logo on the label meet or exceed the minimum standards at 7 CFR Part 2902.

Compostable plastic means plastic that is biodegradable during composting to yield carbon dioxide, water and inorganic compounds and biomass, at a rate consistent with other known compostable materials such as food scraps and yard trimmings, and leaves no visually distinguishable or toxic residues. Products certified as compostable by the Biodegradable Products Institute (BPI) are compliant with the ASTM D6400 or D6868 Standard Specifications for Compostable Plastics.

Comprehensive Procurement Guidelines (CPG) means the recommended percentages of total recovered materials and post-consumer content in designated products established by the U.S. Environmental Protection Agency for federal procurement as of May 2002, and all subsequent versions adopted. The codified regulations at 40 CFR Part 247 apply to organizations whose aggregate purchases of any covered commodity type using federal funding exceeds \$10,000 annually.

Design for the Environment (DfE) means the EPA's voluntary partnership program for certification and labeling of cleaning and maintenance chemical products. Products which bear the logo on their label have been proven to be safer and to have a reduced impact on the environment by containing only those ingredients that pose the least concern among chemicals in their class.

Electronic Products Environmental Assessment Tool (EPEAT) is a procurement tool recognized by the EPA to help institutional purchasers in the public and private sectors evaluate, compare and select desktop computers, notebooks and monitors based on their environmental attributes. It is administered by the Green Electronics Council.

Energy Star means the U.S. EPA's energy efficient product labeling program.

Environmentally preferred products means products or services which have a reduced effect on human health and the environment, when compared to competing products or services that serve the same purpose.

Environmentally Preferable Purchasing (EPP) means the city's program for purchasing environmentally preferred products.

EPA means the United States Environmental Protection Agency.

EPA Comprehensive Procurement Guidelines (CPG) means the recommended percentages of total recovered materials and post-consumer content for designated products established by the U.S. Environmental Protection Agency for federal procurement as of May 2002, and all subsequent versions adopted. The codified regulations at 40 CFR Part 247 apply to organizations whose aggregate purchases of any covered commodity type using federal funding exceeds \$10,000 annually.

EPP refers to products and services which have a reduced effect on human health and the environment when compared to competing products or services that serve the same purpose, or the City Program for preferential purchasing of such products.

EPP Liaison means the person in each applicable department who will serve as their department's primary point of contact for communication between OEP and Finance on issues related to EPP opportunities, product evaluations, and the EPP program.

Feasible means whenever possible and compatible with local, state and federal law, without reduction in safety, quality, or effectiveness; and where life cycle cost analysis supports the use of the product or service. Also see Section II.D and II.E.

Federal Energy Management Program (FEMP) is a program of the Department of Energy that issues a series of Product Energy Efficiency Recommendations that identify recommended efficiency levels for energy-using products.

Fiscally responsible means that selection of the product or service is the best business decision, considering cost factors throughout all phases of the product life (life cycle cost analysis), as described in Section II.D. Safety, health, and environmental factors carry inherent risk-based costs that are not always readily quantifiable, but which should be considered to the extent possible. The lowest price product is not necessarily the fiscally responsible choice.

Forest Stewardship Council (FSC) is a global organization that certifies responsible, on-the-ground forest management according to rigorous standards developed by a broad variety of stakeholder groups.

Green building practices means a whole-systems approach to the design, construction, and operation of buildings and structures that helps mitigate the environmental, economic, and social impacts of construction, demolition, and renovation. Green Building Practices such as those described in the LEED Rating System, recognize the relationship between natural and built environments and seeks to minimize the use of energy, water, and other natural resources and provide a healthy productive environment.

Green Seal is an independent, non-profit environmental labeling organization. Green Seal standards for products and services meet the U.S. EPA's criteria for third-party certifiers, ANSI Essential Requirements, and international standards for eco-labeling (ISO 14020/4 - Environmental Labels and Declarations). Green Seal is a registered certification mark that may appear only on certified products.

Hazardous material means any material, whether solid, liquid, or gas, which if not used properly may cause harm or injury to persons through inhalation, ingestion, absorption or injection, or which may negatively impact the environment through its use or discharge of the material to the ground, water, or air. For purposes of this policy, it includes all of the following definitions of chemicals and hazardous materials:

1. Hazardous chemicals, or any chemical posing a health or physical hazard, as defined at 29 CFR 1910.1200 (OSHA)
2. Toxic and Hazardous Substances listed in 29 CFR 1910 Subpart Z, (OSHA) Hazardous Substances and Extremely Hazardous Substances listed at 40 CFR Parts 302.4 and 355, (EPA)
3. Hazardous Wastes identified in 40 CFR Part 261 (EPA)
4. Marine Pollutants listed at 49 CFR 171.101 Appendix B (DOT)
5. Hazardous materials identified at 49 CFR Parts Table 171.101 or meeting the definition at 49 CFR Part 173 (DOT)
6. mixtures containing 1% or more of any of the above, unless testing as a whole has been completed, using scientifically valid methods, and demonstrates that the mixture does not present a physical or health hazard

Hazardous Materials Identification System (HMIS): This is a system of labeling that was developed by the [National Paint and Coatings Association](#) to help employers comply with OSHA's Hazard Communication Standard. It uses a rating system of 0-4 in three hazard categories.

Integrated pest management (IPM) is a process for achieving long-term, environmentally sound pest suppression and prevention by the following practices: regular pest population monitoring, site inspections, occupant education, and structural, mechanical, cultural and biological controls. Pesticides are used only after monitoring indicates they are needed after water, food, and harborage are removed.

ISO 14020/4 means the International Standards Organization's (ISO) standard for making environmental claims about products and labeling of such products.

Leadership in Energy and Environmental Design (LEED) means any of the comprehensive building standards developed and administered by the United States Green Building Council (USGBC). The standards promote and recognize sustainable design and green building practices.

Low Impact Development (LID) is an approach to land development (or re-development) that works with nature to manage stormwater as close to its source as possible. LID employs principles such as preserving and recreating natural landscape features and minimizing effective imperviousness to create site drainage that treat stormwater as a resource rather than a waste product.

Material Safety Data Sheet (MSDS) means the form provided by a product vendor with specific product safety and health information. This form is required by OSHA and outlines the identity of hazardous chemicals, health and physical hazards, exposure limits, storage handling, and disposal procedures. Also known as **Safety Data Sheets (SDS)** as of November 2011.

National Fire Prevention Association (NFPA) means the agency that establishes hazard rating systems and standards related to fire protection.

Non-professional services means those services which are contracted through the Finance Departments competitive bid process where there is a potential for use of EPP in the vendor's provided service.

Ozone depleting substance (ODS) means a compound that contributes to depletion of stratospheric ozone, the layer of the atmosphere which provides protection from harmful UV radiation. The category includes compounds such as chlorofluorocarbons (CFCs) or hydrochlorofluorocarbons (HCFCs).

Persistent bioaccumulative toxin (PBT) means a chemical that remains in the environment for a long time without breaking down, accumulates in the environment and builds up in the tissues of humans, fish, and animals, and is toxic to living organisms, including humans. Lead, mercury, and dioxins are examples of PBTs.

Pollution prevention (P2) means practices which prevent pollution and reduce waste by focusing first on source reduction, then reuse and recycling, and finally, treatment and/or responsible disposal.

Post-consumer content means the percentage of a product's material content that is derived from recovered materials which would normally be disposed of as solid waste, having reached their intended end-use and completed their life cycles as consumer items. It does not include content derived from manufacturing wastes or materials which never reached the consumer market.

Recovered materials means waste materials and byproducts that have been recovered or diverted from solid waste and converted into a commodity of real economic value. It may include both manufacturing (or pre-consumer) wastes and post-consumer materials but does not include materials and byproducts recycled or reused within the same manufacturing process.

Recovered materials content means the total percentage of a product's material content that has been derived from recovered materials, inclusive of both manufacturing wastes and byproducts and post-consumer materials.

Recycled content means the same as recovered materials content.

Remanufactured product means any product diverted from the supply of discarded materials by refurbishing and marketing said product without substantial change to its original form.

Renewable energy means energy which comes from natural resources such as sunlight, wind, geothermal heat, or waste methane gas and which can be naturally replenished in less than 100 years. It does not include any fossil fuel products (coal, oil, or natural gas)

Resource Conservation and Recovery Act (RCRA) means the federal law enacted in 1976 which addresses various environmental issues related to solid wastes and hazardous wastes.

Reused product means any product designed to be used many times for the same or other purposes without additional processing except for specific requirements such as cleaning, painting or minor repairs.

Source reduction refers to products that result in a net reduction in the generation of waste compared to their previous or alternate version and includes durable, reusable and remanufactured products; products with no, or reduced, toxic constituents; and products marketed with no, or reduced packaging.

Sustainability means the ability to achieve continuing economic prosperity while protecting the natural systems of the planet and providing a high quality of life for present and future generations.

United States Department of Agriculture (USDA) means the federal agency which develops and administers standards for renewable, bio-based agricultural content in products and provides certification to its "Certified Bio-based" standard.

United States Green Building Council (USGBC) means the non-profit national organization which promotes sustainable building design and construction. USGBC develops consensus-based energy-efficiency and environmental standards and certification systems (LEED) for various types of buildings and projects including new construction, renovations, and existing building operations and maintenance.

WaterSense means the EPA's voluntary standard for water efficient products such as toilets, faucets, showerheads, and urinals.