

**DEPARTMENT OF GENERAL SERVICES
BUREAU OF PROCUREMENT
GREEN PROCUREMENT GUIDANCE DOCUMENT**

I. Purpose: This guidance document is designed to provide Commodity Specialists and Purchasing Agents with background information on the Commonwealth of Pennsylvania's Green Procurement Program. It includes reference materials and step by step instructions on how to complete the Environmentally Preferable Products (EPP) Analysis Form for inclusion in every Commodity Plan.

II. An Introduction to Green Procurement

A. What is Green Procurement?

1. Green procurement is referred to by many names: responsible purchasing, eco-procurement, green purchasing, and sustainable purchasing, just to name a few. It's a way of adding environmental considerations to the price and performance criteria used by public and private sector procurement officers to make purchasing decisions. Most importantly, green procurement attempts to identify and reduce the environmental impact of an organization's activities and maximize resource efficiency.
2. The US Environmental Protection Agency (EPA) defines Green Procurement as the following: "Green or Environmentally Preferable Procurement (EPP) is the selection of products and 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."
3. The acronym EPP is used interchangeably to refer to Environmentally Preferable Purchasing and/or Environmentally Preferable products. For purposes of this guide, EPP will stand for environmentally preferable products.

B. When is a Material or Service considered to be Green?

1. Consumes less natural resources.
2. Uses more sustainably, as with sustainable forestry.
3. Involves less energy in their manufacture.
4. Consumes less energy when being used.
5. Contains fewer hazardous or toxic materials.

6. Designed with the intention of reducing the amount of waste created.
7. Reduces the amount of waste create.
8. Contains recycled material.
9. Uses less packaging.

C. What are the desirable attributes?

1. Biobased
2. Biodegradable
3. Carcinogen-free
4. Chlorofluorocarbon (CFC) free
5. Compostable
6. Durable
7. Energy efficiency
8. Lead-free
9. Less hazardous
10. Locally manufactured
11. Low volatile organic compound (VOC) content
12. Low-toxicity
13. mercury-free
14. Persistent bioaccumulative toxin (PBT)-free
15. (Rapidly) renewable materials
16. Recyclable
17. Recycled content
18. Reduced greenhouse gas emissions

19. Reduced packaging
20. Refurbished
21. Resource efficiency
22. Upgradeable
23. Water efficiency

D. What are some key priority areas?

1. Biobased products
2. Building renovation and new construction
3. Cleaning products and services
4. Energy efficiency products
5. Furniture
6. Hybrid electric or alternative fuel vehicles
7. Landscaping products and services
8. Office products
9. paint
10. Paper
11. pest management products and services
12. Products that do not contain persistent bioaccumulative toxins
13. Products that do not contain wood from endangered forests
14. Recycled content products
15. Renewable electricity
16. Vehicle maintenance products and services

E. Why is it important to Buy Green?

1. Environmental Benefits – Purchasing decisions affect local environment and the health of our citizens and workers as well as the global community.
2. Impact on Human Health – Green Procurement encourages the manufacturing of products using fewer toxic ingredients. The impact to human health and the environment is minimized. Greenhouse gases are minimized as well as changing the impact from those products during the manufacturing process (e.g. water/air pollution) as well as reducing the damage caused through accidental spills and improper disposal. We also reduce the risk to workers handling the products and the risks posed to building occupants when the product is in use.
3. Energy Efficiency – Energy efficient, we help to limit energy consumption, which in turn lowers our emissions of sulfur dioxide (which causes acid rain) and carbon dioxide (a primary greenhouse gas).
4. Extract Less Raw Materials – made with a percentage of post-consumer and overall recycled content instead of pure virgin products, we reduce the need to extract raw materials, such as petroleum, trees or metals and in general, use less energy and water and minimize waste.
5. Reduce Water Consumption – Designed to reuse and/or reduce the amount of water needed to perform certain tasks, we actively work toward conserving this very valuable resource. Such products and technologies involved plumbing devices, cooling systems, appliances, water treatment technologies and more.
6. Decrease Dependency on Foreign Oil – Utilizing renewable energy and clean technologies works toward reducing our dependency on foreign petroleum, stimulating economic development for innovative technologies and meeting our goals for clean energy production.

F. What is the role of the Commonwealth?

1. Impact – Influence to Move Markets
 - a. By leveraging the purchasing power of the Commonwealth we have the ability to push industry manufacturers toward

making more responsible products that are reasonably priced and do less harm to the environment and the public health. As we use this purchasing power to push our suppliers in a more proactive, planet-conscious direction, we are also enabling them to achieve an enhanced market position. Many forward thinking businesses have already adopted environmental purchasing policies for traditional reasons such as:

- i). Recognizing market preferences and stepping up to serve customers asking for EPPs.
- ii). Understanding that it can distinguish a business and its products from competitors.
- iii). Recognizing the opportunity to increase operating efficiency.
- iv). Joining an industry or international market trend to capture market share.
- v). Improving compliance with environmental regulations.

G. Are there ever cost benefits to Buying Green?

1. Reduced Total Costs – While green purchasing can help an agency economically as well as lighten its environmental impacts, it can also help departments to improve their efficiency, reduce liabilities and gain competitive advantage when applying for grant and other funding opportunities. The fact is that a green purchasing program is an excellent way of finding products with a high price-performance ratio and with improved use rates.
2. Cost Savings Opportunities – Evaluating a potential purchase by initial (purchase-point) cost alone can actually incur greater total costs for a department. A department's green purchasing program can help identify and reduce hidden costs and develop cost reduction strategies for the entire organization. Some examples of cost savings opportunities include:
 - a. Reduce Hazardous Material Management Costs (from using less toxic products).
 - b. Reduced operational costs (energy savings from efficient equipment).

- c. Reduced disposal costs (hazardous and solid waste) by generating less waste and using longer lasting products.
 - d. Reduced repair and replacement costs when using more durable and repairable equipment.
 - e. Reduced employee safety and health costs at the facility with reduced potential liability by improving the work environment and minimizing risks to workers.
 - f. Reduced material and energy consumption.
3. Actual Cost Savings – Many EPPs available in the market today are less expensive than their conventional counterparts that serve the same purpose. For example, remanufactured toner cartridges cost on average 30-60% less than those produced by original equipment manufacturers, retread tires can save as much as 50% off the cost of a new tire, and remanufactured office panels can reportedly save anywhere from 10-30%.
 4. Same Cost But Better For Environment – A wide range of other EPPs are equal or comparable in cost (e.g. Carpet, cleaning products, janitorial paper products, remanufactured antifreeze and traffic cones, energy efficient lighting, equipment and appliances. While not costing any more, these products offer the added value of reduced toxic use and waste reduction through the use of recycled materials.
 5. Save Money Over Time – A third segment of EPPs may cost more at the time of purchase, but often have a short “payback period” after which time they represent a significant ongoing cost savings in the maintenance, operation and/or disposal of the product. (E.g. compact fluorescent light bulbs, plastic lumber, integrated pest management).
 6. Life Cycle Analysis/Assessment (LCA) – LCA evaluates all stages of a product’s life from the perspective that they are interdependent. LCA enables the estimation of the cumulative environmental impacts resulting from all stages in the product life cycle; often including impacts not considered in more traditional analyses (e.g. raw material extraction, material transportation, ultimate product disposal, etc.)

H. What Are The Challenges?

1. All Commonwealth agencies and departments are different and there is no one path towards sustainability; while one organization

may choose to focus on energy management, another may see an opportunity in setting up an effective recycling program. Regardless of the environmental initiatives they choose to pursue, most organizations face very similar issues:

- a. Additional work needed to research products, plan and coordinate green purchasing programs and implement sustainability efforts.
- b. Lack of commitment or interest from upper management to provide the directives necessary for a more efficient implementation.
- c. Possible resistance from co-workers due to the unavailability or lack of staff education and training.
- d. Lack of expertise in environmental issues and new technologies, particularly those involving technical data reporting and analysis.
- e. Conflicting or confusing information that may create misconceptions about the quality and performance of environmentally preferable products and services, coupled with a shortage of available time to perform necessary research and investigation.
- f. Effort required to change the “business as usual” norm and work with existing suppliers (or to find new suppliers) in order to procure environmentally preferable products and services; there may also be existing relationships between purchasers and suppliers that make it difficult to switch to alternative products.
- g. Difficulty in determining the life-cycle cost of products that considers the manufacturing impacts, potential cost savings opportunities in the operational and maintenance life of the product as well as the expense and process necessary to dispose or recycle the product.

III. Green Procurement Policy in the Commonwealth of Pennsylvania

A. Policy as of March 30, 2009

Part I Chapter 22 "Green" Procurements

A) "Buy Green" Policy.

1. The procurement and use of products and services can have a profound impact on the environment. As a large consumer in the marketplace, the Commonwealth of Pennsylvania recognizes the positive impact that it can make on the environment and human health through the procurement decisions that purchasing agencies make. It is the intent of the Department of General Services to integrate environmental considerations into every aspect of procurement. Although the environment may not be the core of our professional mission, the integration of these factors will result in economic, health and environmental gains that will further our goals.

2. Commonwealth agencies are expected to use their buying power to procure environmentally-preferable products and services in order to:

- a. Advance the protection of the environment and support sustainability
- b. Minimize the potential environmental and health impacts on workers and the public,
- c. Encourage the production and sale of affordable, environmentally friendly and human health conscious products

3) This "Buy Green" policy is consistent with the goal to "incorporate environmentally sustainable practices into its planning, operations, policymaking, and regulatory functions and to strive for continuous improvement in environmental performance with the goal of zero emissions" (Executive Order 1998-1, *Governor's Green Government Council*).

B) Definitions

1. "Environmentally preferable" - 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. The product or service comparison may consider raw materials acquisition, production, manufacturing, packaging, distribution, reuse, operation, maintenance or disposal. Such products or services may include, but are not limited to products that:

- a. Maximize post-consumer and overall recycled content
- b. Minimize waste
- c. Conserve energy or water
- d. Reduce the amount of toxics disposed or consumed
- e. Are Reusable or Recyclable
- f. Minimize Greenhouse Gases

2. "Comparable" - essentially equal in quality and availability and price.

3. **“Energy Star compliant”** - meeting the requirements of the US Department of Energy and US Environmental Protection Agency’s Energy Star Program.

4. **“Electronic Product Environmental Assessment Tool (EPEAT) registration”** -a product that meets the environmental performance criteria specified by the Electronic Product Environmental Assessment Tool (EPEAT) for the registration level of at least Silver.

5. **“Post-consumer material”** - any product generated by a business or consumer that has served its intended end use, and that has been separated or diverted from solid waste for the purposes of collection, recycling and disposition. The term includes industrial by-products that would otherwise go to disposal or processing facilities. The term does not include internally generated scrap that is commonly returned to industrial or manufacturing processes.

6. **“Post-consumer paper”** - any paper, paperboard and fibrous wastes from retail stores, office buildings, homes and so forth, after they have been passed through their end-usage as a consumer item including: used corrugated boxes, old newspapers, old magazines, mixed waste paper, tabulating cards and used cordage, as well as all paper, paperboard and fibrous wastes that enter and are collected from municipal solid waste.

7. **“Recycled content”** - the portion of goods, supplies, equipment, materials or printing containing post-consumer materials.

8. **“Recovered materials”** - waste material and byproducts which have been recovered or diverted from solid waste, but such term does not include those materials and byproducts generated from, and commonly reused within, an original manufacturing process.

C) Purchase of Products Containing Post-Consumer Recycled Content.

1. **Mandatory Requirement.** Solicitations and contracts for the procurement of supplies, services and construction must contain requirements for the procurement of products containing post-consumer recycled content.

a. **Procurement of Supplies.** For those supplies for which the Environmental Protection Agency (EPA) has adopted procurement guidelines under the *Resource Conservation and Recovery Act of 1976* (Public Law 94-580, 42 U.S. C. Section 6901 et seq.), as amended, the procurement documents shall require that the items meet the minimum percentage levels for total recycled content and post consumer recycle content or are

otherwise environmentally preferable as certified under a third party independently verified life cycle analysis conforming to the ISO 14040 series of standards or as specified in the guidelines or in the DGS specifications, whichever reflects the higher level of post-consumer recycled content. DGS may also identify other supplies for which the procurement documents shall require that the items meet the minimum percentage levels for total recycled content as set forth in DGS specifications.

b. Procurement of Services. All contracts for services shall include the requirement that any supplies, which are provided to the Commonwealth as a part of the performance of the contract and for which either the EPA has adopted procurement guidelines under the *Resource Conservation and Recovery Act of 1976* (Public Law 94-580, 42 U. S. C. Section 6901 et seq.), as amended, or supplies that DGS has identified, must meet the minimum percentage levels for total recycled content and post-consumer recycled content or are otherwise environmentally preferable as certified under a third party independently verified life cycle analysis conforming to the ISO 14040 series of standards or as specified in the guidelines or in DGS specifications, whichever reflects the higher level of post-consumer recycled content.

c. Construction Contracts. All public work contracts for construction/renovations and/or modifications shall include the requirement that any supplies that are provided to the Commonwealth as a part of the performance of the contract and for which either the EPA has adopted procurement guidelines under the *Resource Conservation Recovery Act of 1976* (Public Law 94-580, 42 U. S. C. Section 6901 et seq.), as amended, or supplies that DGS has identified, must meet the minimum percentage levels for total recycled content and post-consumer recycle content or are otherwise environmentally preferable as certified under a third party independently verified life cycle analysis conforming to the ISO 14040 series of standards or as specified in the guidelines or in DGS specifications, whichever reflects the higher level of post-consumer recycled content.

d. List of Supplies. DGS has prepared a list of the supplies for which either the EPA has adopted procurement guidelines under the *Resource Conservation and Recovery Act of 1976* or DGS has identified as an item which should be procured as a supply containing post-consumer recycled content. The list and the required contract clauses can be found on the DGS website.

2. Bidding Preference for Recycled Content (Procurement of Supplies Only). All invitations for bids using the competitive sealed bidding method of procurement, for the purchase of supplies must set forth minimum percentage of post-consumer recycled content for the supplies that must be certified by the bidder in order to qualify for a bidding preference of five percent. For those supplies for which the EPA has adopted procurement guidelines under the *Resource Conservation and Recovery Act of 1976*, the minimum percentage of post-consumer recycled content cannot be less than what is specified in those guidelines. DGS may waive this requirement for those supplies which cannot be procured with recycled content.

D) Other Environmentally Preferable Procurements

1. Before any solicitation for the procurement of supplies, services, or construction is issued, the purchasing agency shall perform an analysis to determine and document the availability and competitiveness of environmentally preferable products and/or services. When environmentally preferable products and/or services are available that are comparable to competing products, the purchasing agency shall restrict the statement of work or specifications to only the environmentally preferable products or services.

2. Purchasing agencies shall, when practicable, include consideration of environmental and actual costs through out the entire life cycle of the product ([Executive Order 1980-3, Life Cycle Costing](#)), to include environmental impacts, social impacts replacement costs and disposal costs.

3. Purchasing Agents are encouraged to maximize the procurement of environmentally preferable items purchased, as a percentage of total purchases.

4. Each purchasing agency shall prepare an annual summary of agency procurements of environmentally preferable products and services that details the type, volume and dollar amounts of environmentally preferable products purchased by the agency and include an analysis of the environmental impact of these purchases in comparison with equivalent non-environmentally preferable purchases.

5. Each contract issued with “environmentally preferable” items required or available should encourage the supplier to provide an annual statement that details the type, volume and dollar amounts of environmentally preferable products purchased by the Commonwealth and include an analysis of the environmental impact of these purchases in comparison with equivalent non-environmentally preferable

purchases.

6. Specifications shall require suppliers to offer environmentally preferable and recycled-content products when available.

7. 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.

8. All electronic office equipment, including but not limited to, computers, monitors, printers, scanners, photocopy machines, facsimile machines, and other such equipment purchased by state agencies shall be Energy Star® compliant (with a preference to maximize Energy Efficiency) unless no comparable options are available.

9. All desktops, laptops, and computer monitors are required to have achieved silver registration or higher (with a preference for Gold registration) under the Electronic Products Environmental Assessment Tool (EPEAT).

10. Specifications shall encourage bidders and suppliers to minimize packaging to the extent practical. Packaging made of recycled or recyclable content is preferable to other forms of packaging.

11. In all product procurements, purchasing agencies shall make best efforts to purchase low toxicity products, and other products manufactured through environmentally sustainable methods. In cases where alternatives are not available, purchasing agencies should include specifications to encourage product manufacturers to take back and recycle used products containing toxic materials.

12. All replacement light bulbs used in all buildings participating in the LEED or LEED-EB certification shall meet or exceed Green Seal Standards for energy efficiency, performance and mercury content and maintain Mercury content to levels of less than 90 picograms per lumen hour on weighted average.

13. All invitation for bids and requests for proposals for construction projects issued by purchasing agencies shall set forth any provision of federal and state statutes, rules, and regulations dealing with the prevention of environmental pollution and the preservation of public natural resources that affect the project.

14. Purchasing agencies shall encourage and, to the extent possible, require the procurement of recycled oil products

which are substantially equivalent to products made from new oil.

15. Agencies should give consideration to environmentally preferable products for small no-bid procurements, for small informal bid procurements, and in making selections from statewide requirements contracts based upon best value.

References:

1. [Management Directive 205.22, Recycling, Waste Reduction and Procurement of Environmentally Preferable Products](#)
 2. [Executive Order 1998-1, Governor's Green Government Council](#)
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END OF POLICY

B. Agency Responsibilities

1. The first part of the policy details agency responsibilities which are:
 - a. Commonwealth Agencies shall procure environmentally preferable products whenever practical, including in the construction or renovation of facilities owned or leased by the agency. (Management Directive 205.22, Recycling, Waste Reduction and Procurement of Environmentally Preferable Products).
 - b. Commonwealth Agencies are encouraged to adopt an overall agency policy supporting the purchase of and preference for Environmentally Preferable Products and Services.
2. The DGS/Bureau of Procurement section of the policy has two focuses, the first is to ensure that each commodity is reviewed to determine what Environmentally Preferable Options are available and procured when practical and the second is to lay out some basic requirements for Bid Specifications:
 - a. EPP Analysis

- i). At each review of a Commodity Plan and at each bid or re-bid of a contract, an analysis shall be performed to determine and document the availability and competitiveness of environmentally preferable options.
- ii). When Environmentally Preferable and recycled-content products are offered that are comparable to competing products, contracts shall carry only the environmentally preferable products.
- iii). When Environmentally Preferable items are available and practical, but not necessarily comparable, the Environmentally Preferable items shall be listed on the contract in addition to other products and shall be identified as Environmentally Preferable Options.

Environmentally Preferable Product Analysis

Commodity	
Service	

1) Environmentally Preferable aspects of current Commodity:

2) Are there reputable Third Party Certifications (e.g. Green Seal or EcoLogo) or Self-Certification (e.g. Energy Star or EPEAT) programs relevant to this Commodity?

3) What aspects of Environmentally Preferable Purchasing are applicable to this Commodity? Examples would include: maximizing energy efficiency, fewer toxic substances, maximizing recycled content, etc.

4) What is the best practical Environmentally Preferable Option available for this Commodity?

5) Is the option listed above recommended as a Bid Specification Requirement for this Commodity?

6) What is the recommended strategy to implement Environmentally Preferable Procurement for this Commodity?

7) What is the percentage difference in price between the Environmentally Preferable option and standard options for this Commodity?

Commodity Specialist

EPP Representative

Commodity Manager

Associate Commodity Manager

A. Completing the EPP Analysis Form

1. Question 1 – Environmentally Preferable aspects of current Commodity:
 - a. Are there any Green aspects of the current contract?
 - i). This could be items specified in the Bid Specifications.
 - ii). May be aspects of the supplied product that went beyond requirements.
 - (a). Recycled content
 - (b). Environmental Certifications
 - (c). Efficiency requirements
 - (d). Limits on toxic content
2. Question 2 – Are there reputable Third-party Certifications (e.g. Green Seal or EcoLogo) or Self-Certification programs (e.g. Energy Star or EPEAT) relevant to this Commodity? Determine:
 - a. Who sponsors the Certification?
 - i). Is the certifying body independent of the manufacturer or supplier?
 - b. Who performs the Certification?
 - i). Third Party Certification
 - ii). Self Certification
 - iii). Non Third Party Certification
3. Question 3 – What aspects of EPP are applicable to this Commodity? (Examples would include: maximizing energy efficiency, fewer toxic substances, maximizing recycled content, etc.)
 - a. The purpose of this question is to help understand what aspects of the Commodity should be addressed by the EPP Analysis

- b. Consider the entire life-cycle of the product
 - i). Initial cost
 - ii). Operating costs
 - iii). Maintenance costs
 - iv). Depreciation costs
 - v). Upgrade costs
 - vi). Disposal costs
 - c. Helps determine what qualities we would like more or less of. For example:
 - i). Maximizing Energy Efficiency
 - ii). Fewer Toxic Substances
 - iii). Maximizing Recycled Content
 - iv). Minimize Post-Consumer and Overall Recycled Content
 - v). Minimize Waste
 - vi). Conserve Energy or Water
 - vii). Reduce the Amount of Toxics Disposed or Consumed
 - viii). Reusable or Recyclable
 - ix). Minimize Greenhouse Gases
4. Question 4 – What is the best practical Environmentally Preferable option available for this Commodity? Examples would be: Computers with EPEAT Silver or Gold rating, recycled content, locally manufactured, low VOC content
- a. Is the best option to maximize recyclability and post-consumer recycled content?
 - i). If so, how much is practical or possible?

- b. Would the best option be to minimize or eliminate toxic materials?
 - c. Is there a certification that could accomplish this or would explicit bid specification requirements need to be developed?
5. Question 5 – Is the option listed in the previous question recommended as a Bid Specification Requirement for this Commodity?
- a. Price, availability, quality and adequacy of the option for the intended use all come into play at this point. Increased recycled content or an Environmental certification may be desirable, but if it is considerably more expensive, or for some reason not adequate to accomplish the desired purpose it probably will not be pursued.
 - b. Based on your knowledge of the Commodity, and conversations with stakeholders and suppliers, do you recommend that the option listed in Question 4 be implemented as a requirement for the Commodity?
6. Question 6 – What is the recommended strategy to implement EPP for this Commodity?
- a. This question may be skipped if the “best practical” option was to recommend for implementation in Question 5.
 - b. If the “best practical” option cannot be implemented, what is your recommendation to implement EPP for this Commodity?
 - i). Would a lesser amount of recycled content make the specification acceptable?
 - ii). Is there another certification available, or could portions of the desired certification be listed independently in the bid specifications?
 - iii). Could the EPP item be listed on the contract as a separate item, so that agency purchasers could make the determination if the EPP option works for their needs?
 - c. If the answer to all the above questions is “NO”, then list the reason.

7. Question 7 – What is the percentage difference in price between the EPP option and standard options for this Commodity?
 - a. If the EPP option is comparable in price to the standard option, choose the EPP option.
- B. The EPP Analysis Form is intended to guide the review of a Commodity to determine what “Green” decision have already been made and implemented, what additional options are available and what the recommended course of action is for the commodity being addressed.
 1. Some suggestions for using the form:
 2. Make use of the resources listed in this guide to aid in the analysis.
 3. Don’t let the attachment limit your research. The intention is to guide the analysis, but if additional resources or options are available, use them.
 4. Keep the analysis for future use. Next time the analysis will start where you left off.
 5. If you have suggestions to make the program better, please make them.
- C. Environmentally Preferable aspects of the current contract
 1. Are there any “Green” aspects of the current contract? This could be items specified in the Bid Specifications or requirements or aspects of the supplied product that went beyond the requirements. Examples could include recycled content, Environmental Certifications, efficiency requirements or limits on toxic content. Aspects that are required by regulations or are expected aspects of the product need not be included (There’s no reason to state that a product is “CFC-Free” unless competing products might contain CFCs).
- D. The most frequently cited environmental procedures designed to verify if a product meets standards and examples of each are as follows:
 1. Self Certification:

- a. ENERGY STAR Program – www.energystar.gov/ ENERGY STAR is a joint program of the U.S. Environmental Protection Agency and the U.S. Department of Energy helping us all save money and protect the environment through energy efficient products and practices. In 1992, the US Environmental Protection Agency (EPA) introduced ENERGY STAR as a voluntary labeling program designed to identify and promote energy-efficient products to reduce greenhouse gas emissions. Computers and monitors were first labeled products. Through 1995, EPA expanded the label to additional office equipment products and residential heating and cooling equipment. In 1995, EPA partnered with the US Department of Energy for particular products categories. The ENERGY STAR label is now on major appliances, office equipment, lighting, home electronics and more. EPA has also extended the label to cover new homes and commercial and industrial buildings.
- b. EPEAT – www.epeat.net EPEAT is a system to help purchasers in the public and private sectors evaluate, compare and select desktop computers, notebooks and monitors based on their environmental attributes. EPEAT also provides a clear and consistent set of performance criteria for the design of products and provides an opportunity for manufacturers to secure market recognition for efforts to reduce the environmental impact of its products.

2. Independent, Third Party Certification:

- a. Chlorine Free Products Association – www.chlorinefreeproducts.org/ the Chlorine Free Products Association (CFPA) is an independent not-for-profit accreditation and standard setting organization. Our focus is promoting sustainable manufacturing practices, implementing advanced technologies free of chlorine chemistry, educating consumers on alternatives, and developing world markets for sustainably produced third party certified products and services. The CFPA has no financial interest in any manufacturer or company of the products it certifies.
- b. LEED – www.usgbc.org/ The US Green Building Council is a 501(c) (3) non-profit community of leaders working to make green buildings available to everyone within a generation.

- c. EcoLogo www.environmentalchoice.com Founded in 1988 by the Government of Canada but now recognized worldwide, EcoLogo is North America's largest, most respected environmental standard and certification mark. EcoLogo provides customers – public, corporate and consumer – with assurance that the products and services bearing the logo meet stringent standards of environmental leadership. EcoLogo certifies environmental leaders in over 120 product and service categories, helping customers find and trust the world's most sustainable products.
- d. Forest Stewardship Council (FSC) – www.fsc.org In the wake of the UN Conference on Sustainable Development in 1992 (Rio Summit), concerned business representatives, social groups and environmental organizations got together and established the Forest Stewardship Council. Its purpose is to improve forest management worldwide.
- e. Green-e – www.green-e.org Green-e is the nation's leading independent consumer protection program for the sale of renewable energy and greenhouse gas reductions in the retail market. Green-e offers certification and verification of renewable energy and greenhouse gas mitigation products. It is a program of the Center for Resource Solutions.
- f. Green Guard – www.greenguard.org The GREENGUARD Environmental Institute (GEI) is an industry-independent, non-profit organization that oversees the GREENGUARD Certification ProgramSM. As an ANSI Authorized Standards Developer, GEI establishes acceptable indoor air standards for indoor products, environments, and buildings. GEI's mission is to improve public health and quality of life through programs that improve indoor air. A GEI Advisory Board consisting of independent volunteers who are renowned experts in the areas of indoor air quality, public and environmental health, building design and construction and public policy, provides guidance and leadership to GEI.
- g. Green Seal – www.greenseal.org Founded in 1989, Green Seal provides science based environmental certification standards that are credible, transparent, and essential in an increasingly educated and competitive marketplace. Our industry knowledge and standards help manufacturers, purchasers and end users alike make responsible choices that positively impact business behavior and improve quality of life.

3. Non Third Party Certification:
 - a. Design for the Environment (DfE) – www.epa.gov/dfe/ The Design for the Environment (DfE) Program works in partnership with a broad range of stakeholders to reduce risk to people and the environment by preventing pollution. DfE focuses on industries that combine the potential for chemical risk reduction and improvements in energy efficiency with a strong motivation to make lasting, positive changes. DfE convenes partners including industry representatives and environmental groups to develop goals and guide the work of the partnership. Partnership projects evaluate the human health and environmental considerations, performance and cost of traditional and alternative technologies, materials and processes. As incentives for participation and driving change, DfE offers unique technical tools, methodologies and expertise.
4. Are there reputable Third party Certifications or Self-Certification programs relevant to this Commodity?
 - a. Utilizing certification programs is a valid method to determine reduced environmental impact if the certification programs are valid and the reasoning behind the certifications are understood. Before specifying a certification for a product, ensure the certification and the organization that grants it is understood. Some questions to ask are:
 - i). Who sponsors the certification? Is the certifying body independent of the manufacturer or supplier? In some cases, what appears to be an independent certification is actually administered by a group of the industry itself. This does not mean that these industry certifications are necessarily excluded, but it may indicate that additional research is needed to determine if a benefit would be realized from the certification.
 - ii). Example: Two major competing labels for wood and paper products are the Forest Stewardship Council (FSC) and the Sustainable Forestry Initiative (SFI). The FSC is an independent global group committed to sustainable forestry. To use the FSC logo, suppliers submit to independent audits and strict practices. The SFI is administered by the American Forest and Paper Association, an industry organization funded by the Forest and Paper industry. This is not intended to

minimize the importance or preclude the use of the SFI certification, but to serve as a reminder of the importance to understand the differences in certifications that may seem similar.

- iii). Who performs the Certification? The two possibilities to this question are an independent third party certification and a self-certification. In the first case, an independent body certifies the products or service meets a defined set of criteria. In the second, the manufacturer or supplier affirms that their product meets the criteria. Both of these options may be acceptable, but understanding the differences and ensuring claims are valid is crucial.

E. What aspects of Environmentally Preferable Purchasing are applicable to this Commodity? Examples would include: Maximizing energy efficiency, fewer toxic substances, maximizing recycled content, etc.

1. The purpose of this question is to help understand what aspects of the commodity should be addressed by the EPP Analysis or what qualities we would like more of or less of.
2. When answering this question, think about the entire life-cycle of the product. For example, Hazardous materials inside of a piece of equipment may not pose a hazard during use, but could become an issue at end of life by increasing disposal costs or precluding recycling.
3. For many products, there could be multiple aspects and some of them may not be obvious at first glance. For example, when thinking of paper products, most people think of increased amounts of recycled content, but do not address the sustainability of the source forest, or chemicals used in the processing of the paper.

F. What is the best practical Environmentally Preferable Option available for this Commodity?

1. This question is intended to bring together the work done in the previous questions.
2. From an environmentally preferable perspective, what would the best option be for this Commodity?
3. Would it be to maximize recyclability and Post-Consumer recycled content? If so how much is practical or possible?

4. Would it be to minimize or eliminate toxic materials?
 5. Is there a certification that could be used to accomplish this, or would explicit bid specification requirements need to be developed?
 6. Is the option listed above recommended as a Bid Specification Requirement for this Commodity?
- G. Based on your knowledge of the Commodity, and conversations with stakeholders and suppliers, do you recommend the option listed by implemented as a requirement for the Commodity?
1. Price, availability, quality and adequacy of the option for the intended use all come in to play at this point. Increased recycled content or an environmental certification may be desirable, but if it is considerably more expensive or for some reason, not adequate to accomplish the desired purpose, it probably will not be pursued.
- H. What is the recommended strategy to implement Environmentally Preferable Procurement for this Commodity?
1. This question can be skipped if the “best practical” option was recommended for implementation.
 2. If we can’t implement the “best practical” option, what is your recommendation to implement EPP for this Commodity?
 3. would a lower amount of recycled content make the specification acceptable?
 4. Is there another certification available, or could portions of the desired certification be listed independently in the bid specifications?
 5. Could the EPP item be listed on the contract as a separate item so that agency purchasers could make the determination if the EPP option works for their needs?
- I. If the answer to all of these is “No”, then list the reason.

II. Guidelines and Certifications

A. Understanding “Green” Certifications and Standards

1. An environmental standard is a policy guideline that regulates the effect of human activity upon the environment. The most credible, respected standards are those that have been developed in an

open, transparent process by organizations that do not have a vested interest in the outcome and usually focus on a balance of multiple environmental attributes or considerations throughout a product's life cycle. Purchasers also need to be aware that some standards "require" comprehensive third-party audits while others may simply permit manufacturers to determine, or "self-certify" whether they actually comply with a standard. Both can be valuable and effective but purchasers need to recognize the distinction.

2. Federal Trade Commission – The FTC issued guidelines for the use of environmental marketing claims in the early 1990s and then updated them in 1998. The guidelines are not legislative rules so they do not have the force or effect of law. The FTC says an environmental marketing claim should:
 - a. Have qualifications and disclosures that are clear enough to prevent deception.
 - b. Make it clear whether the environmental attribute or benefit being asserted refers to the product, the product's package or to a portion or component of the product or packaging.
 - c. Not overstate the environmental attribute or benefit, expressly or by implication.
 - d. Include a statement that makes the basis of comparison clear so that the consumer should be able to understand the claim.

B. Third Party Certifications

1. While the FTC guidelines helped to remove a good portion of the most misleading claims, they have not eliminated the problem. To reduce the likelihood of being misled, today purchasers often must rely on a select group of environmental certifications established by reliable, third-party organizations to assist them in assessing the environmental claims made. Third-party certification is a scientific process by which a product, process or service is reviewed by a reputable and unbiased auditor (third party) to verify that a set of criteria, claims or standards are being met. A third-party certification can reduce the time and expense needed for identifying, selecting and purchasing cleaning products.
2. The basic values of a third-party certification are to provide a measure of conformity, satisfy customer demands and limit supplier risks without the expense of repeating tests. Certifying

organizations are anxious to maintain their reputation and sustain their integrity and will provide an excellent way to validate marketing claims while protecting consumers from myths, misconceptions, misleading information and overzealous manufacturers. Third-party certifications assist in overcoming these myths and help those that want to develop true green programs to do so.

C. Avoiding “Greenwashing”

1. As the demand for EPPs is becoming more universal among all levels of purchasing, many major manufacturers are responding with cost-effective, efficient solutions to all types of products. However, in the rush to stay competitive in a green world, some manufacturers are unwilling to make the necessary investment to achieve greater environmental standard and instead invest in creative advertising, or exaggerating a product’s environmental benefits. Such a practice is called “greenwashing” and is often illustrated by using unproven or useless claims like earth-friendly, eco-safe, all natural, ozone safe and others. Fortunately, there are many tools available today to assist purchasers and supply chain managers in determining which environmental claims are accurate and relevant and which ones should be ignored.
2. In an attempt to eliminate deceptive advertising practices that make it difficult for consumers to compare the environmental benefits of a manufacturer or product, the US Federal Trade Commission (FTC) instated guidelines that require manufacturers to explain environmental claims. Initially, the guidelines decreased greenwashing dramatically. However, as competition in a market that demands “green” products increases, greenwashing is reemerging.
3. The six characteristics of modern greenwashing are outlined below:
 - a. Fibbing – making false claims that a product meets the EcoLogo or Green Seal standards.
 - b. Unsubstantiated Claims – Commonly known as “just trust us.” Manufacturers are unable to prove their environmental claims.
 - c. Irrelevance – Making factually correct environmental statements that are no longer relevant due to modern bans and/or laws.

- d. The Hidden Trade-Off – making claims about a single environmental attribute; leading consumers to think that it is the only environmental attribute of concern.
 - e. Vagueness – Broad environmental claims such as “100 percent natural” “Earth Smart” and “Ozone Safe”.
 - f. Relativism – As compared to other products in a given category, a product may be the most environmentally friendly, but still a poor choice.
4. When encountering any of the above greenwashing traits, the following questions should be asked to determine the relevance of the environmental statement:
- a. What type of environmental claim is being made?
 - b. Is a copy of the environmental standard or testing protocol available for review?
 - c. How was the environmental standard or testing protocol developed?
 - d. Who developed the environmental standard or testing protocol?
 - e. What process is used to verify that products actually meet the standard or passed the testing requirements?
- D. Other Documentation
- 1. In the absence of a third-party certification, purchasers may also require that bidders submit documentation from the product manufacturer to substantiate the recycled content or other environmental claims. Such documentation may include test results, MSDS, and affidavits submitted on the manufacturer’s letterhead and signed by a senior company official.
- E. What Makes a Good Eco-Label?
- 1. Seals/Logos indicating that an independent organization has verified that a product meets a set of meaningful and consistent standards for environmental protection and/or social justice.
 - 2. Key Concepts

- a. Meaningful and Verifiable
- b. Consistent and Clear
- c. Transparent
- d. Independent and Protection from Conflict of Interest
- e. Opportunities for Public Comment
- f. Eco-Labels
- g. Third-party certified/verified versus self-declared
- h. Multiple criteria with life cycle consideration versus single attribute
- i. Can be statement, symbol, or chart (“report card”)
- j. Misleading Terms – Examples;
 - i). Compostable
 - ii). Biodegradable
 - iii). Natural
 - iv). Recyclable
 - v). Non-toxic
- k. Misleading Symbols – Examples:
 - i). Recycled – The recycle symbol is not meaningful unless accompanied by a recycled-content percentage. It may also be used to indicate recyclability as opposed to recycled content.
 - ii). CFC-Free: CFCs were banned in nearly all consumer products in 1978 in the US. The Consumer Aerosol Products Council (CAPCO) is a non-profit organization sponsored by 3M that promotes the “No CFCs” logo on aerosol cans. The logo is available to companies who wish to download it.

F. Contract Options

1. With so many attributes and environmental issues to consider how is a purchaser to keep up with the multitude of green options, locate suppliers and determine which will be the most cost-effective for their needs? The good news is that that task is no longer as overwhelming as you may believe. As more governments, private companies, colleges and universities, businesses, institutions and others continue to adopt environmental purchasing policies; it sends a clear message to industry that green solutions are needed. Consider a few strategies already being used by purchasers across the country:
 - a. Let your contract do the work. Establish minimum standards and specifications concerning environmental criteria (e.g. certain percentages of post-consumer recycled content, Energy Star compliance, third-party certified cleaning products to weed out unacceptable products from the start. If needed, give preference (in the evaluation) to bidders who can provide EPPs and/or require all bidders to provide an EPP alternative along with other items bid. Include flexibility in your contract to require awarded suppliers to add green items during the contract term.
 - b. Tap the resources of your suppliers. Require all awarded suppliers to offer training on the products or equipment or services they are providing. (e.g. require that copier suppliers train customers on the power management features and guarantee that recycled paper will not be faulted for equipment problems; require cleaning distributors to include staff training at no additional charge). Require suppliers to identify EPPs in catalogs and online ordering systems, take back products for recycling after their useful life and provide annual reports to agencies on EPP purchasing.
 - c. Require awarded contract suppliers to green their operations. Include language in the bid document that requires awarded suppliers to examine their operations and suggest areas in which they may implement environmental initiatives or purchase EPPs. This type of initiative does not create a burden on the bid process (as it only applies to suppliers receiving an award), but it enables states to increase the positive impact of their purchasing, and educate suppliers on the benefits of greening their operations. Such initiatives may include asking suppliers to clearly identify the recycled content of corrugated packaging on the box, use recycled content papers for marketing materials, use alternative-fuel vehicles for deliveries or equip diesel

vehicles with emission-control retrofit technologies, and work toward a goal of zero waste in their warehouse, manufacturing or office operations.

G. Resources available to help you buy “Green”

1. Commonwealth Resources

- a. DGS Bureau of Procurement
Brian Vulgaris
(717)783-1627
bvulgaris@pa.gov

- b. The Governor’s Green Government Council
Maureen Guttman
(717)772-8946
mguttman@state.pa.us

- c. Commonwealth Agency Recycling Office
Matt Blascovich
(717)772-2300
mblascovic@pa.gov

2. Important Outside Resources can be found here as well as the Appendices

- a. Responsible Purchasing Network (RPN)
 - i). RPN is fast becoming the primary source of information for government procurement professionals. The site features purchasing guides, webinars, a discussion forum, a database of policies to name a few. The information is specific to government procurement, including purchasing guides and product specifications. <http://www.responsiblepurchasing.org>

- b. NASPO
 - i). National Association of State Procurement Offices - www.naspo.org – NASPO: State governments, collectively, are the largest consumers of goods and services in the country, spending billions of dollars each year. NASPO looks for ways to benefit state government along with suppliers.

c. EPP

i). Environmentally Preferable Purchasing (EPP) – www.epa.gov/epp The site contains links for purchasing information and for the following general product and service categories: Buildings, carpets, cleaners, conferences and green meetings, copiers, electronics, and food service-ware.

ii). The EPA's EPP program started in 1993 after the signing of Executive Order 12873, and continues today under Executive order 13423. The following commodities are covered under this order:

(a). Non-VOC paint

(b). Cleaning supplies

(c). EPEAT Computers

(d). Paper, envelopes made with recycled post-consumer fiber

(e). Reprocessed motor oil

(f). Toner cartridges

(g). CF lightbulbs

(h). Energy Star appliances

(i). LEED certified building materials

(j). Fuel efficient, hybrid or electric cars

3. Other Resources

a. Government Procurement Magazine and Website
www.govpro.com

i). This website and magazine contain articles that are searchable by topic. Sustainability is one topic on this site. Articles are geared toward describing a program or initiative that a state has launched rather than offering specific, detailed advice.

- b. GreenSpec Directory for Green Building Products
 - i). The 7th edition of GreenSpec Directory includes information on over 2,100 green building products carefully screened by the editors of Environmental Building News. Directory listings cover more than 250 categories – from access flooring to zero-VOC paints. Included are product descriptions, environmental characteristics and considerations, and manufacturer contact information with Internet addresses.
- c. Inform, Inc
 - i). Inform, Inc provides educational materials on e-waste and toxins in cleaning supplies. The site has a podcast series; “The Secret Life” that provides a detailed look into the toxins of many everyday, consumer products.
- d. ISO 1400 Family of Environmental Standards
 - i). International Standards Organization is responsible for international quality standards. Environmental management standard ISO 14001 is a useful approach in realizing an environmental conscious management system. ISO 14001 provides training sessions for auditors and many articles about ISO 14001.
- e. The Natural Step International Gateway
 - i). The model and concepts presented by Natural Step is the basic framework for understanding sustainable practices. The are local chapters of Natural Step that offer training sessions that are foundational.
- f. Sustainable Industries
 - i). “The premier magazine for sustainable business. News on the west coast and beyond.” Contains information about products, companies, trends, and topics pertaining to sustainability.
- g. Wiser Earth

- i). An expansive directory and networking forum. Approximately 110,000 organizations that can be searched by areas of focus. Wiser Earth provides a map of the scope and of the diversity of the global sustainability movement.

- h. Zero Waste Alliance
 - i). The Zero Waste Alliance is a non-profit partnership of universities, government, business and of other organizations working to develop, to promote and to apply Zero Waste strategies. Major initiatives include EPEAT™ Sustainable Oregon K-12 Schools Initiative, SCORE, Chemical Assessment and Ranking System, Northwest Compact Fluorescent Lamp Recycling project, and Unified Green Cleaning Alliance.