Sustainable Purchasing Guidelines

Getting Started

What is sustainability?

Broadly, sustainability is a values-based lens through which we can evaluate any number of human practices, including the purchasing decisions we make. Our natural systems provide the essentials for our survival—clean air and water, healthy soil, a stable climate—through a massively complex and interconnected web that has evolved over billions of years. In order for the human species to maintain a healthy and just society, we must live in ways that do not erode the ecological and social systems upon which we depend. Sustainable practices are those that meet the needs of the present without diminishing the capacity of future generations to meet their needs.

What is sustainable purchasing?

According to the National Association of Educational Procurement (NAEP), sustainable (or green) purchasing

[s]hall be defined as the method wherein environmental and social considerations are taken with equal weight to the price, availability and performance criteria that colleges and universities use to make purchasing decisions. Green Purchasing is a serious consideration of supply chain management. Green Purchasing minimizes negative environmental and social effects through the use of environmentally friendly products. Green Purchasing attempts to identify and reduce environmental impact and to maximize resource efficiency. Green Purchasing is also known as "environmentally preferred purchasing (EPP), green procurement, affirmative procurement, eco-procurement, and environmentally responsible purchasing."

Learn more…

Attached are helpful tips and guidelines, as well as questions to ask when making sustainable purchases. Manufacturers and suppliers should be encouraged to provide products that meet these guidelines.

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Purpose

The purpose of these guidelines is to support individual and institutional decision makers in procuring environmentally and socially responsible products and services.

How to Use the Guidelines

- o The **Procurement Strategies** section offers points to consider across all product classifications.

- o The **Third Party Certifications** section features hotlinks to verification processes.

- o The **Questions to Ask** section offers a checklist of the questions you should ask when evaluating the sustainability of your purchase.

- o The **Resources** section features hotlinks to organizational resources and standards commonly referenced in higher education procurement strategies.

- o The **Glossary** offers definitions of italicized terms used throughout the document.

Procurement Strategies

In all purchasing decisions, consider these three basic questions:
   1) How was this product made?
   2) What will it take to operate and maintain the product?
   3) What will happen to the product at the end of its life?

1) Consider the Source

- o Choose products that contain recycled content and products that have the ability to be reused or recycled.

- o Source from manufacturers that have policies in place to reduce waste, pollution, and greenhouse gas emissions.

- o Source from manufacturers that have policies in place that support sound labor practices.

- o Place priority on *local/regional* sources (local sources are located generally within 100 mile radius, regional sources can be as far as 250 miles) to cut down on the monetary and environmental costs of transportation and to support the local economy.

2) Efficiency in Operations

- o Consider the full *lifecycle* of a product being purchased.
  - ▪ See the glossary for a lifecycle cost calculator.

- o Consider a product's life expectancy and the resources required to operate and maintain it.
  - ▪ Choose durable products over single-use products when possible.

- o Choose energy efficient products that require minimal resources to function.

3) **End-of-Life Considerations**

- Consider disposal requirements.
  - Purchase products from manufacturers who will take responsibility for the entire lifecycle of the products and their packaging (*Extended Producer Responsibility*).
  - Get the service you need without ownership and maintenance: lease and/or rent products.

Additional Strategies:

Reduce Waste at Each Decision Point
- Minimize packaging.
  - Choose products that are produced locally or regionally to reduce package material needs.
  - Negotiate with producers to take back packaging for reuse or recycling (*Extended Producer Responsibility*).
- Buy products in bulk and in high concentration, reducing weight, fuel, carbon dioxide emissions, and waste.
- Stipulate sustainable packaging materials.
  - High levels of *post-consumer recycled content*
  - Reusable
  - Recyclable
  - Non-toxic
  - *Biodegradable*

- Purchase remanufactured goods or use refurbishing services rather than buying new products.
  - Ex: remanufactured toner cartridges
  - Ex: refurbished office equipment, appliances and furniture
- Limit the purchase of single-use items and choose rechargeable or refillable products.
  - Ex: batteries and print cartridges
- Purchase goods with little to no potentially harmful chemicals in order to reduce pollution and contamination concerns.
  - *Biodegradable* and phosphate-free
  - Low volatile organic compounds (VOCs)
  - Low or no formaldehyde content
  - Low or no bleach, chlorine, or chlorine derivatives

Refer to Third-party Certifications
- Watch out for *greenwashing* in advertising and product claims. Product marketers would like you to believe their often unsubstantiated claims about the environmentally and socially responsible measures they have taken in designing and manufacturing their products.

- Look for verifiable product claims. (See Third Party Certifications below)

- Beware claims that are not verifiable. Claims like these are so ambiguous that they are virtually meaningless: *natural*, *green, eco, Earth-friendly.*

Third-party Certifications

General Purchases and Labor

- **Cradle to Cradle**
  - Closed-loop design standards for a wide range of consumer products
- **Fair Labor Association**
  - Fair labor practices
- **Green Seal**
  - Products and services used in facility operations and maintenance
  - Products used in food service
  - Household cleaning products
  - Construction materials, equipment, and systems
- **Rainforest Alliance**
  - Forest and agricultural products

Paper and Wood Products

- **Forest Stewardship Council**
  - Paper and forest products
- **Chlorine Free Products Association**
  - Paper and pulp
- **Sustainable Forestry Initiative**
  - Wood and paper products

Appliances and Electronics

- **Electronic Product Environmental Assessment Tool (EPEAT)**
  - Computers (Ex: desktops, laptops, and monitors)
- **ENERGY STAR**
  - Appliances and electronics

Building Construction and Demolition

- **Floor Score**
  - Flooring products
- **GreenGuard Environmental Institute**
  - Indoor air quality standards for building construction products and finishes
- **Green Label Plus**
  - Carpet, cushions, and adhesives
- **Leadership in Energy and Environmental Design (LEED)**
  - Building design and construction

Food and Dining

- **Certified Humane**
  - Farm animals
- **Seafood Watch**
  - Seafood
- **USDA Organic**
  - Agricultural goods
- **TransFair USA**
  - Fair trade practices

Questions to Ask...

1) Consider the Source

Product Design

☐ Is the product designed according to cradle-to-cradle principles? Does is contain recycled content?

☐ Is the product made with low or non-toxic materials? Examples include:
  - ○ *Biodegradable* and phosphate-free
    - ▪ Ex: cleaning products
  - ○ Low volatile organic compounds
    - ▪ Ex: paint, carpeting, and adhesives
  - ○ Low or no formaldehyde
    - ▪ Ex: paint, carpeting, and adhesives
  - ○ Low to no bleach, chlorine, or chlorine derivatives
    - ▪ Ex: paper and paper towels

☐ Is the product packaged in minimal, re-usable, recyclable or *biodegradable* packaging?

☐ Is the product available in bulk or in high concentration?

☐ Was the product manufactured with renewable energy?

Vendor Practices and Policies

☐ Does the vendor have a stated commitment to or a formal policy in place for the following goals?
  - ○ waste reduction and/or recycling
  - ○ energy reduction
  - ○ toxics reduction and/or processing
  - ○ environmentally preferable purchasing
  - ○ equitable wages and health care benefits for full time employees

Vendor Location and Accountability

☐ Is the vendor local/regional (within 100-250 miles)?

☐ Is the vendor independently owned and operated?

☐ If the vendor is operated as part of a larger chain, how accountable are they to local concerns?

Shipping

☐ Is the product packaged in minimal, re-usable, recyclable or *biodegradable* packaging?

☐ Will the manufacturer take back the packaging?

2) Efficiency in Operations and Maintenance

☐ How durable is the product?
  - ○ Ex: single use vs. multiple-use product

☐ Can the product be leased instead of purchased?
  - ○ Ex: copy machines

☐ What types of resources (energy, replacement parts, etc.) are needed to operate the product?

☐ Can the product be recharged, refilled, or remanufactured?
  - ○ Ex: batteries, printer cartridges, etc.

3) End-of-Life Considerations

☐ Can the product be reused, recycled, or *downcycled*?

☐ Can the product be remanufactured or refurbished at the end of its life? Will the company provide the service or collection?
  - ○ Ex: toner cartridges, furniture, carpets, etc.

Resources

- **AASHE** - Association for the Advancement of Sustainability in Higher Education

- **STARS** - Sustainability Tracking, Assessment, and Rating System—a voluntary self-reporting framework for colleges and universities

- **U.S. Communities** - Government Purchasing Alliance

- **Recycling** - What to recycle at Wake Forest

Glossary

Biodegradable: Capable of being decomposed by biological activity, especially by microorganisms; the ability of a substance to break down in the environment into harmless compounds.

Downcycling: A process of disassembling a product and recycling or repurposing specific components of the product, rather than the entire product. Most products are downcycled, rather than completely recycled.

Extended Producer Responsibility (EPR): A concept that requires the vendor to take responsibility for its product after the user is finished with it, or at the end of its life. Companies that subscribe to EPR generally take the full life of the product into account during the design phase, reducing waste at the beginning of the process instead of the end.

Greenwashing: Making misleading and unsubstantiated claims regarding the environmental benefits of a product or service.

Local/Regional Purchasing: A radius of 100 miles is often used as a guideline for the term "local," while a radius of 250 miles is given for the term "regional." Buying products locally can generate local economic benefit and reduce negative impacts of distribution. Local producers may be more accountable to environmental and economic concerns of the community in which they do business.

Post-consumer Recycled Content: Material that has been re-claimed post-consumer use. For example, post-consumer recycled paper content comes from paper that has been reclaimed through the recycling process. *Pre-consumer recycled content* is reclaimed from wasteful internal manufacturing processes, like excess salvage generated during the cutting process.

Product Lifecycle: The stages a product goes through from its origin to its end or disposal. These stages include the product's origin (design and raw materials), manufacturing, use, and end-of-life.

How to calculate lifecycle cost of a product:

Initial Cost + Maintenance + Replacement Expenses
÷ Years in Service
= Cost per year

Although the initial cost may be greater for more sustainable products, the overall cost may be less over the long run. In most cases, the higher cost is the result of sound environmental and social practices – those that do not externalize costs onto the environment and employees.

Ex: More durable products save money over time by reducing maintenance and replacement fees.

Ex: Non-toxic finishes increase labor productivity by reducing the number of breaks employees need to escape toxic fumes.

Ex: Energy efficient light bulbs may cost more than incandescent bulbs, but they save energy and eventually lower electric bills.

Ex: Lifecycle Cost of Carpet

+ Initial Cost: price and installation

+ Maintenance: vacuuming, cleaning, chemicals, and labor

+ Replacement expenses: furniture removal, wiring, labor, disposal, and lost productivity (NOT replacement cost)

÷ Expected life of the product in years

= Cost per year

Lifecycle cost comparison of equal amounts of carpet over 10 years:

- **"Value" carpet (cheaper/sq yd)**
    - **+** Initial cost = several dollars less/sq yd
    - **+** Not stain resistant, so requires more chemicals and labor to maintain
    - **+** Employees must handle more toxic cleaning chemicals
    - **+** Doesn't feature a moisture barrier backing, so requires professional cleaning in the case of larger liquid spills
    - **+** Wears out after 5 years so furniture, computers, people have to be moved in order to replace
    - **÷** 5 years
    - **=** Cheap carpet + many expenses/5 years

- **Quality carpet (more expensive/sq yd)**
    - **+** Initial cost = several dollars more/sq yd
    - **+** Requires only regular vacuuming and occasional spot cleaning with non-toxic solvent
    - **÷** 10 years
    - **=** More expensive carpet with routine maintenance/ 10 years

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