

Purchasing “Green” — What Does It Really Mean?

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Confused by the “green” marketing and labels? Explore purchasing green and taking greener actions to save energy and resources, and determine if products are indeed “green” or just part of the hype. The tools presented will help you evaluate the claims and identify products and practices that may be more sustainable and less damaging to people and the environment. The focus is home energy, practices, and products.

What Does “Green” and “Sustainable” Mean?

Green terms can be confusing. There is no standardized definition of the term *green* and it is not regulated. In this publication, *green* refers to the adoption of environmental management practices and products intended to minimize the damaging impact on the environment from resource depletion and pollution. Think of “environmentally preferable” products and services that reduce pollution and that have less effect on human health and the environment.

Green and *sustainable* are used so frequently that their meaning has become blurred. The idea of sustainability is to ensure that our actions and decisions today do not hinder the opportunities of future generations. It includes looking at how we get the resources we use, using only what is needed in a way to get the most from them, and eliminating the idea of waste. Sustainability is using natural resources very efficiently without destroying the ecological balance of an area, region, or the world and depleting or wasting natural resources.

Why Green and Sustainable?

The U.S., with 5 percent of the world’s population, uses about 26 percent of the world’s energy. Buildings use about one-third of the energy consumed in the U.S., and two-thirds of all electricity according to the U.S. Department of Energy. Building design, construction, operation, and maintenance have a large impact on our environment and natural resources.

Homes account for about 21 percent of electrical energy consumption and contribute about one-fifth of greenhouse gas emissions from burning fossil fuels, and 21 percent of the carbon dioxide (CO₂) emissions. The residential sector growth in CO₂ emissions has averaged 1.9 percent per year or 32.7 percent of the total increase in U.S. energy-related CO₂ emissions since 1990.

Improving the energy efficiency of homes, practices, and products can save money, conserve resources, and avoid more greenhouse gas emissions.

Shades of Green

Almost everything we buy, use, or have in our homes has some environmental impact. Few things we use are totally green. It is up to you to protect yourself from being misled by false claims.



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5 Principles of Greener Living

	Energy Efficiency — Reduce the amount of energy required to operate the home
	Resource Efficiency — Reduce resources used in building, modifying, and maintaining the home
	Water Conservation — Maximize the efficient use of water in and around the home
	Indoor Environmental Quality — Create a healthier indoor environment for the occupants
	Site and Community Impact — Consider the impact of the materials and home on the land and the immediate community, global community, and environment

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Greenwashing refers to excessive claims made about the process or product beyond what the environmental benefits really are. These may include:

- Misleading consumers about the environmental practices of a company or the environmental benefits of products or services. Vague wording and claims.
- Implementing minimal actions and claiming strong environmental stewardship. Irrelevant claims.
- Lacking information or proof of claims or third-party independent certification.

Buying “Green” and Thinking Sustainability

Consider these questions when making decisions about products and materials.

1. Is the item a need or a want?
2. Is the item durable, repairable, and if maintained, will it last?
3. Are the raw materials from local or regional resources?
4. How will its use or disposal impact the environment? Can it be reused or recycled?
5. What do the Material Safety Data Sheet and the label say about the safety or hazards?
6. Are there certification labels present? If yes, who certifies and based on what criteria?
7. Will the item perform without electricity? Consider mechanical, hand-operated products.
8. Could the item be purchased with a friend or neighbor for shared use?
9. Is the item being used in an efficient way and according to the directions for optimal performance?
10. How can consumers have less impact on the environment and use fewer natural resources?

The Bigger Picture: Thinking Holistic

1. Is the item made from rare natural resources?
2. Is the item made from renewable resources that are abundant, and does its use not have major negative impacts on the environment?
3. Where did the raw materials come from to produce the item? What environmental issues are involved in using these raw materials? How far were the raw materials transported?
4. What manufacturing processes might have been used?
5. Does the item create air-quality problems during harvesting raw materials, manufacturing, transporting, use, or operation?
6. How much energy was used to: obtain the raw materials, produce, manufacture, and transport the item into the home?
7. What is the impact of operating or using the item?
8. How much energy, water, and other natural resources are used to operate the item? Is it less than other similar items?

These questions help you to consider the big picture. Think about the consequences of purchases in light of other environmental impacts — the energy and water used and pollution generated.

Selecting Products and Materials

Challenges

There are challenges when selecting “greener” items and practices that have less environmental impact, including:

- finding businesses that offer products with less environmental impact,
- taking time to research the product or process,
- having limited knowledge or resources to research a practice or item, and
- initial higher costs for some items.

Labels and Specification Sheets

Address these challenges by reading labels, looking for third-party environmental certification, and asking for a product specification sheet or more information.

Ask for the Material Safety Data Sheet (MSDS) available for many items such as household cleaners, home improvement products, solvents, etc. Words that may indicate the product is harmful to the environment or people include *caustic*, *corrosive*, *explosive*, *flammable*, *combustible*, *poison*, *volatile*, *reactive*, *ignitable*, *toxic*, *danger*, *warning*, or *caution*. These words are clues that more product information is needed. Ask for specification sheets if you are not familiar with ingredients, or contact the manufacturer.

For more information, go to Household Products Database at householdproducts.nlm.nih.gov/faq.htm or to MSDS — Materials Safety Data Sheet at hazard.com/msds/.

Eco-Labels

Know what is behind the green label claims. Until green marketing terms are more clearly defined, you will have to examine the basis of green claims, rely on some of the third-party labeling and testing that is occurring, and do your own product evaluation. Labeling programs do not cover all aspects of a product's environmental impact. Many certification programs are voluntary.

Testing and certification methods include:

- *Third-party certification* of products that have been tested by an independent lab, or processes evaluated by a third party not connected to the company.
- *Testing and evaluation done by outside labs or groups* connected to and hired by the company.
- *Evaluation or testing within a company's* own labs using their own process or a system connected to their business.
- *No testing or evaluation* and products self-labeled by the company as green.

Summary

- Developing a “greener” lifestyle is essential.
- Start small and simple!
- Sustainable practices are invaluable.
- Environmental and social responsibility are important.
- Health and safety for people *and* the environment are critical.
- Everyone can become more green.
- Being greener can also save your green!

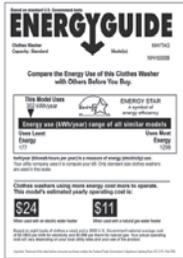
“Greener Shopping” means thinking about the environment when making consumer decisions. It includes considering energy and raw materials used to make the products in the first place and the impact of using the product on health and the environment. The appropriate purchase for one person may not be for another, even though both are choosing with the environment in mind. Decision making about purchases and waste reduction depends on the circumstances of the individual or family, the community, and the environment.

Government, Organization, and Industry Eco-label Examples

Government



The **WaterSense** label, www.epa.gov/watersense, identifies a high-performing water-efficient product that has been independently tested and certified to meet U.S. Environmental Protection Agency (EPA) WaterSense criteria for efficiency and performance. This EPA voluntary certification program indicates a product or service is about 20 percent more efficient than its counterpart. The logo may be on sink faucets, faucet aerators, showerheads, urinals, and toilets.



The Federal Trade Commission's Appliance Labeling Rule requires **EnergyGuide** labels, www.ftc.gov/energyguide, on clothes washers, dishwashers, freezers, refrigerators, room air conditioners, water heaters, furnaces, boilers, central air conditioners, and heat pumps. The appliances must meet the U.S. Department of Energy (DOE) Appliance Standards Program. Manufacturers must use standard testing procedures to prove the product's energy use and efficiency. The label provides a scale to compare energy usage of similar models and approximate annual operating costs. The label shows the highest and lowest energy consumption or efficiency estimates of similar appliance models, based on DOE test procedures. Actual annual costs will depend on local utility rates and product use.



The **ENERGY STAR**® label, www.energystar.gov, means the product meets or exceeds the energy efficiency guidelines set by EPA and DOE for that product line. The program includes more than 40 home product categories, including heating and cooling equipment, windows, roof products, home electronics and appliances, lighting and light fixtures, and more. The voluntary labeling program is designed to identify energy-efficient products. Product line specifications must be a significant improvement over the national average for that line.

Organizations



The **National Fenestration Rating Council (NFRC)** label, www.nfrc.org/, helps to compare energy ratings, including the U-value, solar heat gain coefficient (SHGC), and visible light transmittance. ENERGY STAR windows must be NFRC rated. Lower U-value means the window insulates better. Select a U .32 or lower if possible, an air leakage rating of about 0.3 cubic ft/min or less, and low-e (low emissivity) and/or selective coatings for the climate. Compare the SHGC for climate and orientation — generally between 0.41 and 0.55 is suggested for our climate zone.



Green Seal, www.greenseal.org, an independent nonprofit organization, issues environmental seals of approval for consumer products to identify products that are less harmful to the environment than others in the same category. A product Environmental Impact Evaluation is done to identify the product characteristic and points in the manufacturing process that could cause significant environmental harm. The standard addresses toxic chemical pollution, energy consumption, depletion, and pollution of water resources, harm to wildlife and natural areas, natural resource waste, and global warming. Green Seal evaluates the environmental impacts of products, not the environmental practices of companies as a whole. They evaluate a product or service beginning with material extraction, through manufacturing and use, and ending with recycling and disposal. Products only become Green Seal certified after testing and evaluation, including onsite plant visits.



The Carpet and Rug Institute, www.carpet-rug.org/, has a **Carpet and Adhesive Testing** program. The **Green Label** for carpets tests seven chemicals, and the **Green Label Plus** carpet program measures 13: Acetaldehyde, Benzene, Caprolactam, 2-Ethylhexanoic Acid, Formaldehyde, 1-Methyl-2-Pyrrolidinone, Naphthalene, Nonanal, Octanal, 4-Phenylcyclohexene, Styrene, Toluene and Vinyl Acetate. Look for the label, which indicates carpet, carpet backings, cushions, and adhesives emit lower volatile organic compounds (VOCs) into the air from chemicals.

The **Art and Creative Materials Institute** (ACMI), www.acminet.org/, is a nonprofit association of manufacturers of art, craft, and other creative materials. All children's materials certified by ACMI are nontoxic and cannot bear health warning labels. The new **AP (Approved Product) Seal**, with or without Performance Certification, identifies art materials that are safe and certified in a toxicological evaluation by a medical expert to contain no materials in quantities toxic or injurious to humans, including children, or to cause acute or chronic health problems.



The **Sustainable Forest Initiative**, <http://www.sfiprogram.org>, is an independent organization focused on supporting responsible forestry. The forest certification standard is based on principles to promote sustainable forest management, including measures to protect water quality, biodiversity, wildlife habitat, and species at risk. More than 180 million acres (73 million hectares) are certified to the SFI forest management standard across North America, making it the largest single standard in the world. SFI on-product labels help consumers identify what they are buying. SFI certified content labels show that some or all of a product's fiber comes from certified forests; certified fiber sourcing label shows that the product contains fiber from responsible sources and was procured in accordance with the SFI Standard.



The **Forest Stewardship Council (FCS)**, www.fscus.org/, is an independent not-for-profit organization promoting environmentally responsible, socially equitable, and economically viable management of the world's forests. The FSC certification system provides internationally recognized accreditation services to companies, organizations, and communities interested in responsible forestry. The voluntary label indicates the item comes from FSC certified forests, recycled or other controlled materials. For certification, FSC defines 10 principles that describe how forests have to be managed to meet the social, economic, ecological, cultural and spiritual needs of present and future generations. Independent certification bodies assess forest management and chain of custody operations against FSC standards.



The **GREENGUARD™ Environmental Institute (GEI)**, is a third-party organization that focuses on improving indoor air quality by certifying products for low chemical emissions. Products such as paints, flooring, furniture, interior building materials and cleaners are tested and verified to meet GREENGUARD's stringent indoor air quality standards. Certified products can be found at www.greenguard.org. GREENGUARD certification is broadly recognized and accepted by numerous green building programs, such as the U.S. Green Building Council's LEED program, Collaborative for High Performance Schools (CHPS), Green Globes, and more.

Commercial



The **Electronic Product Environmental Assessment Tool (EPEAT®)** program, www.epeat.net, currently focuses on laptop and desktop computers and monitors and will expand to printers/copiers and TVs in 2011, and then other electronics. To be registered with EPEAT, the product must meet the required environmental performance criteria or attributes (currently 23 criteria). Products are rated for three levels depending on the percentage of the additional optional criteria met. Compared to traditional electronics, EPEAT-registered products are to have reduced levels of lead, cadmium, and mercury; be more energy efficient; and be easier to upgrade and recycle. EPEAT operates a verification program to evaluate the credibility of the system. EPEAT is managed by the nonprofit organization, Green Electronics Council.



Scientific Certification Systems (SCS) www.scscertified.com/ecoproducts/products, provides third-party certification, auditing and testing services, and standards. Where standards require lab testing, SCS works with independent laboratories to provide information for certification decisions. SCS offers standards-based product certification for green building products. Manufacturers earn certification for one aspect of a product's environmental impact such as recycled content, biodegradable products, no added formaldehyde, indoor air quality (IAQ) and/or for multiple environmental performance attributes. The certified product database is available at their Web site.



The Scientific Certification System (SCS), **Indoor Air Quality Program**, www.scscertified.com/sustainablechoice/, offers certification for two product groups: *Indoor Advantage* and *Indoor Advantage™ Gold* for paints and coatings, sealants and adhesives, wall coverings, insulation, furnishings, and other interior products. More information can be found at www.scscertified.com/gbc/indoor_air_quality.php. **SCS Indoor Advantage™ Gold**, www.scscertified.com/gbc/indooradvgold.php, certification includes documentation review, on-site audit of manufacturing plant(s), laboratory testing of product test samples, and compliance with indoor air quality emissions standards. Paints and coatings comply with stringent volatile organic compound (VOC) content limits based on the California Office of Environmental Health and Hazard Assessment's list of exposure levels for 80 individual chemicals.



The **Resilient Floor Covering Institute's FloorScore®** program, www.scscertified.com/gbc/floorscore.php, provides testing and certification for hard surface and resilient flooring and flooring adhesives for compliance with indoor air quality emissions requirements. VOCs are evaluated, and FloorScore certifies products that do not exceed one-half of the allowable concentration limits. Products bearing the label meet the indoor air emissions criteria of LEED® Green Building Rating Systems and Green Guide for Health Care. Those with the FloorScore seal have been independently certified by SCS to comply with the VOC criteria nationwide.



SCS Certified Recycled program, www.scscertified.com/gbc/material_content.php, provides content certification of recycled or biodegradable materials including a desk audit, on-site audit and sometimes lab testing. The specified recycled content includes the product percentage that is preconsumer and postconsumer or biodegradable. To be certified biodegradable, 70 percent of the product, in the presence of air, must break down into carbon dioxide, basic salts, and water within 28 days.

Community Lesson

Evaluation Form for Members/Participants

1. I am:

<input type="checkbox"/>	Under 29
<input type="checkbox"/>	30-39
<input type="checkbox"/>	40-49

<input type="checkbox"/>	50-59
<input type="checkbox"/>	60-69
<input type="checkbox"/>	70 or older

2. Are you attending this program as a part of a club/group/etc.?

<input type="checkbox"/>	Yes
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<input type="checkbox"/>	No
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If so, please specify what club, group, organization / agency or other:

3. Please indicate which lesson you completed: (check one)

<input type="checkbox"/>	<i>Bite When the Temperature is Right</i>
<input type="checkbox"/>	<i>Living Resourcefully: Finding Ways to Make Your Dollars Go Further</i>
<input type="checkbox"/>	<i>How Strong Families Deal with Stress and Crisis</i>
<input type="checkbox"/>	<i>Purchasing "Green" — What Does It Really Mean?</i>

4. How much of the lesson did you complete? (check one)

<input type="checkbox"/>	All
<input type="checkbox"/>	About half
<input type="checkbox"/>	About one-quarter

5. Please indicate whether you agree or disagree with the following statements. Circle a number for each.

	<i>Strongly Disagree</i>	<i>Disagree</i>	<i>Agree</i>	<i>Strongly Agree</i>
1. This topic is important to me and addresses issues that I need to know more about.	1	2	3	4
2. I am more knowledgeable about the topic covered.	1	2	3	4
3. I will use this information in making informed decisions in the future.	1	2	3	4
4. The information covered in this lesson will impact my life in a positive way.	1	2	3	4

One way is (please list): _____

5. I will share this information with others who could use this information.	1	2	3	4
6. Because of this lesson, I will make a change in what I do related to this topic.	1	2	3	4

Changes I plan to make include (please list): _____

Please mail to:

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