

## **Green Initiative Policy**

#G88-02

Date of Adoption: March 9, 1988

Date of Amendments: July 12, 2007

### **PURPOSE**

The purpose of this policy is to acknowledge that in order to minimize environmental impacts and to support recycling and green ethics, Lenawee County will use its best efforts to commit to environmental, economic, and social stewardship through green practices for County facilities, buildings, supplies, and services. Also, this policy will establish the framework for developing an environmental focused program for Lenawee County. As a very large consumer of goods and services the County Board expects the implementation of this policy to:

1. Contribute to the realization of the Board's stated goal of protecting, conserving, and enhancing the region's environmental resources,
2. Yield cost savings to County taxpayers through reduced operating costs,
3. Provide a healthy work environment for County employees and visitors to County facilities and buildings,
4. Promote the program to all employees and organizations in and around Lenawee County Government, and
5. Help establish a community standard of green practices for Lenawee County.

### **BOARD RESOLUTION**

On November 12, 2008, the Board of Commissioners adopted a resolution for the implementation of a Countywide Policy instructing that all County departments implement the County's Energy and Environmental Programs for energy conservation and environmental stewardship.

In coordination with each County department, the Purchasing and Maintenance Departments will have overall responsibility for this program. This will include establishing appropriate standards for "green" purchasing, assessing cost effectiveness and making recommendations related to acquisition strategies and maintaining data and issuing reports to the Human Service Committee and/or the County Commissioners related to the County's progress in environmental purchasing.

To implement the County's "green initiatives", our County departments will be tasked to support the green practices of this policy.

### **BASIC GREEN PRACTICES AND USES** of this policy include:

1. Conservation of natural resources and minimize environmental impacts such as pollution and use of water and energy;
2. Institute practices that minimize the creation of waste and reduce materials that are put into our landfills;
3. Institute practices that reduce waste by increasing product efficiency and effectiveness and to reuse materials until their life is expended or impractical;
4. Provide an avenue for recycling all recycling acceptable waste and recycling materials that cannot be source-reduced,
5. Support strong recycling markets by purchase products that include recycled content, are durable and long lasting, conserve water and energy, use agricultural

- fibers and residues, reduce greenhouse gas emissions, use unbleached or chlorine free manufacturing processes, and use wood from sustainable harvested forests;
6. Increase the use and availability by purchasing environmentally preferred products that minimize environmental impacts, toxics, pollution and hazards to worker and community safety to the greatest extent practicable and to encourage manufacturers and vendors to do the same;
  7. Maintain sustainable building practices which promote environmental quality, economic vitality, and social benefit through the design, construction and operation of the built environment to the fullest extent possible unless it is unreasonably expensive or does not meet the performance requirement;
  8. Will maintain a fleet of vehicles that can reduce gasoline consumption with proper servicing and use of alternate fuels;
  9. Create a model for successfully purchasing environmentally preferable products that encourages other purchasers in our community to adopt similar goals; and
  10. Develop measurements that will document the efforts and savings to the County.

### **PURCHASING PROCEDURES AND STANDARDS**

The purchasing and use decisions of our employees and contractors can positively or negatively affect the environment. By including environmental considerations in our procurement decisions, along with our traditional concerns with price, performance and availability, we will remain fiscally responsible while promoting practices that improve public health and safety, reduce pollution, and conserve natural resources.

**Purchasing Environmentally Preferable Products** (See Appendix A.): In coordination with the Human Services Committee, the County Purchasing and Maintenance Department will be responsible for:

- ✓ Working with other governmental purchasing groups, departments and agencies to determine appropriate standards for green purchasing.
- ✓ Assigning central purchasing staff to evaluate various green products and to provide guidance and assistance to County departments.
- ✓ Developing and implement a 5 year plan to phase in various categories of purchased goods under the green program umbrella. Relative easy to implement items (e.g., paper, cleaning supplies, etc.) will be implemented very early in the program.
- ✓ Heading up teams to evaluate various types of products where the cost differential is great and/or the products are not considered good substitutes.
- ✓ Assessing and making recommendation on the use of price preferences.
- ✓ Searching for local suppliers where feasible to reduce transportation costs and support the local economy.
- ✓ Look for additional ways to reduce/reuse/recycle within the County's building complexes.
- ✓ Maintaining data and issuing reports related to the County's progress in environmental purchasing to the Human Service Committee, the Administrator, and all other Departments.

- ✓ Establishing central purchasing agreements with a catalogue of environmentally friendly and energy efficient products and to modify our existing agreement data bases for the easy identification of green products.

In establishing countywide commodity agreements, the County's Purchasing and Maintenance Departments will specify the requirement for environmentally preferable products where applicable, and will evaluate product alternatives where appropriate. This evaluation would include: consideration of total costs expected during the time a product is owned, including, but not limited to, acquisition, extended warranties, operation, supplies, maintenance, disposal costs and expected lifetime of a product(s) as compared to other alternatives. In the evaluation and/or award process:

- ✓ Products that are durable, long lasting, reusable or refillable will be preferred whenever feasible.
- ✓ Wherever possible, suppliers of electronic equipment, including but not limited to computers, monitors, printers, and copiers, be requested to take back equipment for reuse or environmentally safe recycling when the County discards or replaces such equipment; and
- ✓ All suppliers may be required, where applicable to use and recycle packaging material used for product delivery.

**Remanufactured Products:** The County should actualize the purchase of remanufactured products such as laser toner cartridges, furniture, and equipment whenever practicable, but without reducing safety, quality, or effectiveness.

### **COUNTY DEPARTMENT RESPONSIBILITY - GENERAL**

Under the delegated authority of the County Purchasing and Maintenance Department, departmental buyers are responsible to evaluate short-term and long-term costs in comparing product alternatives. Through Purchasing and Maintenance Department agreements, it is strongly recommended that Departments be required to:

1. Purchase only recycled-content bond paper.
2. Purchase energy-efficient products in order to conserve electrical power, reduce peak power consumption, lower energy costs, provide market leadership and support energy-efficient purchasing by County Government.
3. Review and use "green" product alternatives in County and other authorize government agreements.
4. Report findings of product research to the Purchasing or Maintenance Department for permanent record.

**Conservation and Waste Reduction:** Wherever practicable and cost-effective, departments are responsible to institute practices that reduce waste and result in the purchase of fewer products without reducing safety or workplace quality. Examples would include:

- Using electronic communication instead of printed.
- Using double-sided photocopying and printing.
- Using washable and reusable personal dishes and utensils.
- Using rechargeable batteries.
- Streamlining and computerizing forms.
- Using “on-demand” printing of documents and reports as they are needed.
- Leasing long-life products when service agreements support maintenance and repair rather than new purchases.
- Choosing durable products rather than disposable.
- Buying in bulk, when storage and operations exist to support it.
- Re-using products such as, but not limited to file folders, storage boxes, office supplies, and furnishings.

**Understanding of County’s Green Initiative:** Every County department is responsible to ensure that their respective employees, contractors, and vendors are fully aware and supportive of the County’s initiative to purchase environmentally preferable goods and services. To this end, departments are responsible to exercise due diligence in their procurement decisions as well as procurements made by their contractors and consultants, promoting the purchase and use environmentally preferable products whenever cost effective, and to the extent practicable for all work completed on behalf of Lenawee County.

## **PURCHASING OF OFFICE EQUIPMENT**

**Solicitation for Equipment or Products:** In purchasing other types of equipment, the County will make every effort to look for the Energy Star® rating for energy efficiency (See Appendix B). Wherever practicable, when equipment or product purchases where Energy Star® labeled products are available, County Departments and Agencies are expected to include an energy-efficiency requirement component to their solicitation to purchase those products that meet the recommended standards. Examples of these products include, but not limited to computers, monitors, printers, photocopiers, and facsimile machines.

**Energy Star Rating:** The benefits of purchasing Energy Star® labeled and Federal Energy Management Program (FEMP) recommended products include:

- Reduced energy costs without compromising quality or performance
- Significant return on investment
- Extended product life and decreased maintenance

Products purchased by the County, and for which the U.S. Environmental Protection Agency (EPA) Energy Star® certification is available, for all intent and purpose meet Energy Star® certification when practicable. When Energy Star® labels are not available energy-efficient products should be purchased that are in the upper 25% of energy-efficiency as designated by the FEMP. A listing of Energy Star® approved products, as well as the formula for determining Life Cycle Costs is available through the U.S. EPA.

**Sample Solicitation Language:** “Notice to Bidder: In line with the County policy for the procurement of energy-efficient equipment and products, preference will be given to those products that meet the Federal Energy Management Program (FEMP) standards or possess an Energy Star® label.” For energy consuming products where there are no FEMP recommended criteria or Energy Star® label, departments must consider the purchase of products that conserve electrical power and/or natural gas to the maximum extent possible, based on minimum life-cycle costs.

## **CONSTRUCTION AND BUILDINGS**

**LEED Certification:** It is highly recommended that the policy of Lenawee County will take into account green building practices and given first consideration for any proposed construction, addition, or renovation of County buildings or facilities with the goal of attaining LEED (Leadership in Energy and Environmental Design) certification (See Appendix B). Consideration shall include a comparison of life-cycle cost analyses when non-green building practices are being considered (See Appendix C). The U.S. Green Building Council’s LEED rating system and Reference Guide shall be the design and measurement tool used to determine what constitutes green building under this policy. All County buildings, facilities, and renovation projects are encouraged to achieve certification at the highest practicable LEED rating level. The County will carry out its commitment on this policy by educating project administrators on green building principles through every phase. Criteria for choosing designers, architects, construction managers, and consulting teams will include demonstrated knowledge of green building practices in their specific fields, and as applicable, a familiarity with life cycle cost analysis and LEED ratings.

**Energy and Water Conserving Equipment:** Energy-efficient equipment should be purchased with the most up-to-date energy-efficiency functions, where applicable. This includes, but is not limited to, high efficiency space heating systems and high efficiency space cooling equipment. When practicable, the County will replace inefficient lighting with energy efficient equipment.

The County will investigate and purchase water-saving products whenever practicable. For upgrades to water fountains, bathrooms, and other areas that use water in some method, consideration will be given to the use of water conserving equipment.

**Toxins and Pollutants:** To the extent practicable, no cleaning or disinfecting products (i.e. for janitorial use) should contain ingredients that are carcinogens, mutagens, or teratogens. These include chemicals listed by the U.S. EPA or the National Institute for Occupational Safety and Health (OSHA) on the Toxins Release Inventory. When maintaining buildings, the County will look to use the lowest amount of volatile organic compounds (VOC's), highest recycled content, and low or no formaldehyde when purchasing materials such as paint, carpeting, adhesives, furniture and casework. The County can reduce or eliminate its use of products that contribute to the formation of dioxins and furans. This includes, but is not limited to:

- Purchasing paper, paper products, and janitorial paper products that are unbleached or that are processed without chlorine or chlorine derivatives, whenever possible. Paper, paper products and construction products made from non-wood, plant-based contents such as **agricultural crops and residues** are encouraged whenever practicable.
- Eliminating the purchase of products that use polyvinyl chloride (PVC) such as, but not limited to office binders, furniture and flooring, whenever practicable.

**Landscaping:** Workers and contractors providing landscaping services for the County are encouraged to employ sustainable landscape management practices whenever possible, including, but not limited to integrated pest management, grass-cycling (leaving grass clipping on lawn when mowing), drip irrigation, composting, and procurement and use of mulch and compost that give preference to those produced from regionally generated plant debris, animal waste recycling, and/or food waste programs.

Plants and trees help to beautify our buildings and should be used to give an environment that improves the appearance of our buildings. Plants should be selected to maximize the reduction of waste by choosing species that are appropriate to the micro-climate species that can grow to their natural size in the space allotted them and perennials rather than annuals for color. Native and drought-tolerant plants that require no or minimal watering once established are preferred.

Consideration is suggested to larger plants and trees and their location in proximity to building windows that would help to reduce the usage of air-conditioning in the summer, but allow sun in the winter to aid in the costs of heating.

Hardscapes and landscape structures constructed of recycled content materials are encouraged.

**VEHICLES**

To encourage the purchase of more fuel-efficient vehicles and reduce greenhouse gas emissions (GHG), the Board of Commissioners is adopting a new green vehicle policy, which will extend to all new vehicles purchased by the County. (See Appendix D)

**Vehicles and Equipment:** If the elected official or department head decides to buy a conventional car, the fuel efficiency rating of the new car must be within 10 percent of the comparable rating for the most fuel-efficient full-size car available. This determination is made by comparing the vehicle to be purchased to the most recent Energy Guide publication.

To encourage the purchase of more fuel-efficient vehicles and reduce GHG's, elected officials or department heads allowed county owned vehicles and wishing to buy hybrid electric vehicles will receive an additional \$7,000.00 toward the purchase price. This increase reflects the higher cost of these vehicles as compared to conventional vehicles. To ensure government is taking advantage of the latest fuel emission/efficiency technology, all vehicles purchased must be the current or prior model year. Full-size sport utility vehicles and pick-ups, unless hybrids, will not be purchased in the future unless a specific need is required and expressed in writing to the Administrator by the department head.

**General Vehicle Fleet (light vehicles):** The Board of Commissioners recently began considering both fuel consumption and capital cost when procuring light vehicles for departments. This practice will continue. Pick-up trucks and passenger cars acquired will have flex-fuel capability in preparation of the commercial availability of ethanol-blend or biodiesel fuels.

**Heavy Trucks and Equipment:** County government is committed to replacing heavy trucks and equipment with newer, more efficient equipment over the next several years to take advantage of more stringent engine emission standards.

**Maintenance:** Department heads will establish a schedule, based on the manufacturer's recommendation, for tune ups and oil changes, and regular maintenance to keep the vehicle running in the most efficient manner.

**No Idle:** Vehicles shall not be left unattended and idling nor shall any vehicle be left idling longer than 5 minutes.

**New Technology:** In addition, the Board of Commissioners will continue to review and research the use of more fuel-efficient vehicle technologies available in the United States market and seek appropriate application where operationally and economically feasible. Only U.S. made vehicles and equipment will be purchased unless special approval of the full Board of Commissioners waives the purchase to that of a foreign vehicle and equipment.

**Education:** Each department will educate vehicle operators on steps they can take to reduce GHG's and fuel consumption. Selection of appropriately sized vehicles, in consideration with operational requirements will be considered on all purchases. (See Appendix D)

**BALANCING ENVIRONMENTALLY CONSIDERATIONS WITH PERFORMANCE, AVAILABILITY AND FINANCIAL COST**

Lenawee County is committed to procuring environmentally preferable goods and services wherever they meet performance standards and requirements of the County at a competitive cost.

**Nothing in this policy shall be construed as requiring a purchaser or contractor to procure products that do not perform adequately for their intended use, exclude adequate competition, or are not available at a reasonable price or in a reasonable period of time.**

However, when comparing product costs, the County does not focus exclusively on the quoted vendor pricing but also the costs over the life of the product, which includes the initial cost along with maintenance, operating, insurance, disposal, recycle or replacement, and potential liability costs. Examining life cycle costs will save money by ensuring we are quantifying the total cost and environmental stewardship of ownership before making purchasing decisions.



**APPENDIX A**

**Defining Environmentally Preferable Products:** All products for which the United States Environmental Protection Agency (U.S. EPA) has established minimum recycled content standard guidelines, such as those for printing paper, office paper, janitorial supplies, construction, landscaping, miscellaneous, and non-paper office products, will be scrutinized to contain the highest post-consumer content practicable, but no less than the minimum recycled content standards established by the US EPA Guidelines.

In general, environmentally preferable products and services are those that would have a reduced effect on human health and the environment when compared with competing products and services. More specifically, this comparison would include consideration of all phases of the product's life cycle, including raw materials, acquisition, production, manufacturing, packaging, distribution, operation, maintenance and disposal, including potential for reuse or ability to be recycled. In practice, the objective is to purchase products that have reduced environmental impact because of the way they are made, used, transported, stored, packaged, and disposed of. It means looking for products that do not harm human health, are less polluting and that minimize waste, maximize use of bio-based or recycled materials, conserve energy and water, and reduce the consumption or disposal of hazardous materials. When determining whether a product is environmentally preferable, the following standards should be considered:

Biobased cadmium)	Heavy metal free (i.e., no lead, mercury,
Biodegradable content	Low volatile organic compound (VOC)
Carcinogen-free	Energy, Resource and Water efficient
Compostable	Bio accumulative toxic (PBT) free
Low toxicity	Chlorofluorocarbon (CFC) free
Made from renewable materials	Reduced packaging, Refurbished
Recycled content, Reusable	Reduced greenhouse gas emission

**APPENDIX B**

**LEED:** A voluntary certification program that can be applied to any building type and any building lifecycle phase, and is an internationally recognized green building certification system, providing third-party verification that a building or community was designed and built using strategies aimed at improving performance across all the metrics that matter most: energy savings, water efficiency, CO<sub>2</sub> emissions reduction, improved indoor environmental quality, and stewardship of resources and sensitivity to their impacts.

Developed by the U.S. Green Building Council (USGBC), LEED provides building owners and operators a concise framework for identifying and implementing practical and measurable green building design, construction, operations and maintenance solutions. It promotes a whole-building approach to sustainability.

LEED is flexible enough to apply to all building types – commercial as well as residential. It works throughout the building lifecycle – design and construction, operations and maintenance, tenant fit out, and significant retrofit. An organization's participation in the voluntary and technically rigorous LEED process demonstrates leadership, innovation, and environmental stewardship.

Key Performance Areas:

Sustainable Sites, Water Efficiency, Energy & Atmosphere, Material & Resources, Indoor Environmental Quality, Locations & Linkages, Awareness & Education, Innovation in Design, and Regional Priority.

USGBC: Intro – What LEED Is, What LEED Measures, What LEED Delivers

**ENERGY STAR:** Energy Star is a labeling program derived from a partnership between the U.S. Environmental Protection Agency (EPA) and the U.S. Department of Energy (DOE). All products displaying the Energy Star label meet Federal Energy Management Program (FEMP) standards. Typically, this means that labeled products are in the top 25 percent of all similar products when ranked by energy efficiency, and use 25 to 50 percent less energy than their traditional counterparts.

This program helps to save money and protect the environment through energy efficient products and practices. A strategic approach to energy management can produce twice the savings for the bottom line and the environment. This strategy helps in measuring current energy performance, setting goals, and tracking savings.

**APPENDIX C**

**Cost Analysis:** Even where energy-efficient products usually have a higher purchase price than their less efficient counterparts, these products usually save money because they use less energy, often have a longer life, and typically incur less maintenance cost. These savings, such as from lower energy bills and less maintenance, are achieved throughout the entire lifetime of the product. Thus, when deciding how much money an energy-efficient labeled product will save, it is necessary to consider both initial cost (the purchase price), and the costs that will be incurred throughout the life of the product (such as energy and maintenance costs). This is known as the Life Cycle Cost. The formula for determining Life Cycle Cost is available through the U.S. Environmental Protection Agency.

**APPENDIX D****Increasing Automobile Efficiency****ON THE ROAD:**

- Stay within posted speed limits. Gas mileage decreases rapidly at speeds above 60 miles per hour. For each 5 mph you drive over 60 mph is like paying an additional \$.024 per gallon for gas, and wastes 5% fuel. Driving 70 to 80 mph uses 10 to 20% more fuel. Substantial savings can be realized on a long trip.
- Drive moderately. Gas mileage can be improved by up to five percent around town if “jackrabbit” starts and stops are avoided and by anticipating traffic conditions and driving gently. Aggressive driving can lower your gas mileage by thirty-three percent at highway speeds and by five percent around town. Savings could realize 104 gallons of gasoline saved per year, which would amount to 14 billion gallons per year in the United States.
- Avoid unnecessary idling. It wastes fuel, costs money, and pollutes the air and can cost up to 19% more in fuel usage. Turn off the engine if idling would take longer than a minute. Idling gets 0 miles per gallon. Cars with larger engines typically waste more gas at idle than do cars with smaller engines.
- Combine errands. Several short trips taken from a cold start can use twice as much fuel as one trip covering the same distance when the engine is warm.
- Take advantage of ride-sharing. Do errands, go to lunch, drive to work, attend meetings by car pooling.
- Use overdrive gears and cruise control when appropriate. The cruise control improves the fuel economy of the car by up to 33% when driving on a highway by having a more even speed. When you use overdrive gearing, your car’s engine speed goes down. This saves gas and reduces engine wear. But note: If the car is driven in mountainous areas the cruise control should be shut off. The vehicle will try to maintain the speed you set and will use a lot of extra gas downshifting to lower gears to accomplish this.
- Remove excess weight from the trunk, and avoid carrying unnecessary items. An extra 100 pounds in the trunk (or car) can reduce a typical car’s fuel economy by up to two percent. Excess weight will affect smaller vehicles greater than larger vehicles.
- Avoid packing items on top of the car. A loaded roof rack or carrier creates wind resistance and can decrease fuel economy by five percent. Place items in the trunk to reduce aerodynamic drag.
- Consider meetings held away from the office to be attended via tele-conferencing or computers via webcasts.

## MAINTAINENCE OF VEHICLES

- Keep the engine tuned. Tuning an engine according to the owner's manual recommendation can increase gas mileage by an average of 4% depending on the car's condition. Develop a maintenance program for the vehicle or fleet.
- Keep the tires properly inflated and aligned. Properly inflated tires can increase gas mileage up to 3%. Under-inflated tires can lower gas mileage by 0.3% for every 1 psi drop in pressure of all four tires. Properly inflated tires are safer, decrease road resistance helping to make the engine work easier, and last longer because of decreased tire wear.
- Change the oil. Gas mileage will improve by using the manufacturer's recommended grade of motor oil, and by using a motor oil that says "energy conserving" which will contain friction-reducing additives that can improve fuel economy.
- Check and replace air filters regularly. In older cars, keeping them clean can increase gas mileage up to 10%. In newer cars, replacing a clogged air filter can improve acceleration time. It is estimated that \$0.22 per gallon of gas can be saved by replacing a bad air filter.

## AT THE PUMP:

- Use the most efficient octane level for the car as recommended by the owner's manual. Using a higher octane gas offers no benefit.
- The difference between a car that gets 20 MPG and one that gets 30 MPG amounts to approximately \$668 per year (assuming 15,000 miles of driving annually and a fuel cost of \$2.67). Over a 5 year period a savings of \$3,340.00 can be recognized per vehicle.

## CONSIDERING ALTERNATIVE FUEL VEHICLES:

- Using alternative fuel vehicles may reduce harmful pollutants and emissions and reduces carbon dioxide.
- Using alternative fuel vehicles may improve fuel economy and increase power.
- Alternative fuel vehicles can save money in reduced fuel costs by choosing the most efficient vehicle that meets the need.
- Reduces oil dependence costs.
- Increases energy sustainability by reducing usage of oil, a non-renewable resource.

**Information gathered from:**

Federal Trade Commission: Protecting America's Consumers, FTC Consumer Alert

U.S. Department of Energy (DOE) and Environmental Protection Agency (EPA)

[www.fueleconomy.gov](http://www.fueleconomy.gov) Why is Fuel Economy Important?, Choosing a More Efficient Vehicle, Planning and Combining Trips, Keeping Your Car in Shape, Driving More Efficiently

[www.Pledge60.org](http://www.Pledge60.org) Tips We Can All Use to Save Gas, Save Gas to Re-Energize America and the Economy

Edmunds 2010 Buying Guides: Fuel Economy, Gas-Saving Maintenance Tips, We Test the Tips