

Procuring Energy-Efficient Products
A Guidebook for
State and Local Government Policymakers

Prepared for the Consortium for Energy Efficiency

by

Paul P. Hlavac & Associates

Revised April 10, 2000

Note: This guidebook is intended for senior elected and appointed officials in state, county and local governmental bodies. These officials are involved in energy-efficiency by means of laws they pass or policies they set. Such laws and policies could address the issue of energy-efficient products directly by establishing a “green” environment for the governmental body, or by specifically requiring that energy-efficiency be a consideration in decision making. These officials could also indirectly impact the issue by allowing for the (sometimes) higher purchase cost of energy-efficient products in capital budgets, by providing incentives or reasons to reduce energy costs, and so forth. Because of their

influence and authority, these officials can play an extremely valuable role in any effort to establish an energy-efficient purchasing program.

Procuring Energy-Efficient Products

A Guidebook for State and Local Government Policymakers

This guidebook is designed to help policymakers learn more about the many important reasons why their state, county or local governmental body should buy energy-efficient products. It discusses:

- The advantages of procuring energy-efficient products
- Where energy-consuming products are bought in governmental bodies
- Steps to take to start an energy-efficient purchasing program, or strengthen an existing one
- Where to go for more information and assistance.

An Appendix contains a sample resolution that supports the procurement of energy-efficient products.

Why Buy Energy-Efficient Products?

Many of the products your governmental body buys – items such as lighting products, HVAC equipment, water heaters, office equipment, motors, and so forth – are costly to operate. A major reason is that they use a great deal of energy (electricity, gas, or oil). You can save a lot of expense, and benefit everyone, with a properly structured program

**ENERGY STAR – compliant
air-conditioning systems
exceed federal standards by
20%.**

for buying energy-efficient products. As their name suggests, these products use less energy than their inefficient counterparts. ENERGY STAR®, a collaboration of the U.S. Department of Energy, the Environmental Protection Agency, and private companies, was created to help organizations buy energy-efficient products. Products that are ENERGY STAR compliant exceed minimum federal standards.

In fact, there are actually three important types of benefits that result from buying ENERGY STAR labeled or equivalent products:

Cost Savings

- **Utility bills are significantly reduced.** ENERGY STAR compliant products use less energy, so utility bills decrease. The University of California at San Francisco now saves over \$2 million annually on utility bills just because it installed energy-efficient lighting.

Toledo, Ohio upgraded to energy-efficient lighting and HVAC systems in 30 buildings, reducing annual utility bills by \$440,000.

- **Maintenance costs are lower.** Many ENERGY STAR labeled products last far longer than typical products. This results in lower maintenance costs because the products are replaced less frequently.

Montgomery County, Maryland recoups lighting retrofit costs in 4 years just from reduced maintenance.

- **Special financing is often available.** Some energy providers offer rebates to customers who install ENERGY STAR labeled or equivalent products and equipment, and others offer 0% or low-rate financing. Furthermore, below-market financing or other financial incentives may be available from the federal government and from state energy financing programs.

Portland, Oregon received \$420,000 in rebates because of its energy-efficiency program.

What all this means is that **ENERGY STAR compliant products are very often cheaper** than their inefficient counterparts when all of the costs (such as purchasing cost, energy cost, and maintenance cost) are considered over the products' lifetime, called *life cycle cost*. The purchase price of some ENERGY STAR labeled or equivalent products may be higher, but their life cycle costs are usually lower, so you will save taxpayer dollars when you buy them.

ENERGY STAR compliant products free up substantial tax dollars for other purposes, such as teachers' salaries and more public services.

Better Operating Efficiency

- **Improved operating characteristics, comfort, and quality.** Often, ENERGY STAR compliant products work better and are higher quality. For example, energy-efficient lighting can offer more light, with better colors and less flickering. The University of Cincinnati replaced old boilers with energy-efficient ones that increased efficiency from 76% to 86%. This higher efficiency caused energy consumption to decrease by 88 million BTUs per year, reducing annual energy costs by \$300,000.

The G. Pierce Wood Memorial Hospital in Arcadia, Florida retrofitted with T8 lamps that increased lighting levels by 21%.

- **Greater reliability and longer product life.** Many energy-efficient products provide more reliable performance, often over a much longer life. LED exit signs last 10 to 20 times as long as conventional signs and are more reliable because they are less likely to burn out.

Environmental Responsibility

- **A cleaner, healthier environment.** Most energy is produced by burning coal, oil, or natural gas. Unfortunately, carbon dioxide and other greenhouse gases are created and emitted

The energy saved by 500 ENERGY STAR compliant laser printers yields pollution reductions equivalent to taking 68 cars off the road for a year.

into the atmosphere during the process, and these gases are extremely harmful to the environment. Because they use less nonrenewable energy resources, ENERGY STAR labeled or equivalent products are responsible for fewer of these dangerous emissions, resulting in a cleaner, healthier environment for everyone.

**The bottom line:
Energy efficient products save tax dollars, work
better, and are environmentally responsible.**

Where Are These Products Bought?

It is likely that energy-consuming products are purchased in several places within your governmental body. Typically, there is a centralized procurement unit responsible for administering purchasing contracts and making some purchases. This is a good place to start an energy-efficiency program, because it is a pivotal organization and consists of purchasing professionals. Often, some government departments/agencies (e.g., legislative bodies and institutions of higher learning) are exempt from using the centralized procurement unit, and they may have their own purchasing organizations. Also, some governmental bodies allow their departments/agencies to make purchases on their own (e.g., using credit cards) if they are under a certain dollar amount.

**Energy-efficient purchasing
must involve both your
governmental body's
procurement and facility
management organizations.**

There is usually another organization that is very important to any energy-efficiency program. This is the facility management (or property management) organization that is responsible for constructing new facilities and renovating existing ones. Many energy-consuming products (e.g., heating, air conditioning, and lighting products) are specified and purchased for these projects. Often, the dollar amount of these purchases exceeds those bought through the centralized procurement unit. Normally, these products are specified, and budgeted for, very early in the design phase of construction or renovation projects. A third party architect/engineering firm is usually employed to do this design work, and this firm determines whether energy-efficient products will be used. Thus, it is the responsibility of your governmental body's project managers, who oversee the outside architects/engineers, to require that ENERGY STAR labeled or equivalent products be specified and used.

Steps To Take

Buying ENERGY STAR compliant products makes good sense, but someone has to begin the process. Hopefully, you will be that person. Here are some steps you can take:

- 1. Access the ENERGY STAR website.**
 - It contains a great deal of information about energy-efficient products, and it will help you develop an energy-efficiency program.

**Consider sponsoring
legislation or a resolution
to buy ENERGY STAR
compliant products.**

2. **See if any environmental, “green,” or energy-related legislation or resolutions apply to your governmental body.**
 - Increasingly, governmental bodies demonstrate leadership in environmental and energy conservation, as well as in cost-containment.
 - For example, Ohio House Bill #264 allows non-standard bid processes for energy-efficiency projects and also permits payment to be made from the savings achieved.
 - The Appendix to this guidebook contains a sample energy-efficient procurement resolution.

3. **Contact your energy providers.**
 - See if they offer rebates, low-interest financing or other assistance to encourage energy-efficient purchasing programs.

4. **Ensure that your governmental body’s procurement unit specifies ENERGY STAR labeled or equivalent products whenever they are justified.**
 - Your procurement unit may be able to use other governmental bodies’ contracts (for example, a county or city may be able to use state contracts), or they may be part of a cooperative purchasing group. If so, they should find out if any of those contracts are for ENERGY STAR compliant products, so that buying them will be relatively simpler.
 - Also, they should review purchasing policies and guidelines to ensure that they are consistent with buying ENERGY STAR labeled or equivalent products.

5. **Make certain that facility (or property) management specifies ENERGY STAR compliant products in the earliest stages of construction and renovation projects whenever appropriate.**
 - Ensure that third party architects/engineers are required to specify ENERGY STAR products in their designs.

6. **Share this brochure with anyone who you think wants to save taxpayer dollars, purchase better products, and help the environment.**
 - With more supporters, the chances of success are much greater.

7. **Designate an “Energy Manager” who is knowledgeable about energy-efficient products, their benefits, and available information resources.**
 - This person should be positioned to work both with your governmental body’s procurement organization and with its facilities management unit.
 - The Energy Manager plays a key part in implementing a complete energy-efficiency program by, for example:
 - ✓ Helping to include energy-efficiency in job descriptions of senior procurement and property management personnel
 - ✓ Ensuring that procurement policies, resolutions and guidelines support energy-efficiency
 - ✓ Assisting those who want to specify and buy ENERGY STAR compliant products

**The Energy Manager
becomes a focal point for
spreading the “energy
efficiency” word.**

- ✓ Developing a means of recognition for organizations and individuals who specify ENERGY STAR labeled or equivalent products
- ✓ Representing your governmental body at energy-efficiency meetings and conventions, or sponsoring such a group on a local or regional basis
- ✓ Working with external associations and groups on energy-efficiency issues.

Only you can commit yourself and get the process going. Everyone will benefit when you do.

Energy-Efficiency Resources

The next step is yours, but you are far from alone. Many state, county and local governmental bodies are committed to buying ENERGY STAR labeled or equivalent products, and they have overcome the same hurdles you may face. The following are some resources you can use.

The EPA's energy-efficiency website and toll-free number are:

www.energystar.gov will introduce you to the ENERGY STAR program. If you click on "Institutional Purchasing" at the bottom of the home page, you will be directed to a site from which you can obtain sample procurement language that specifies energy-efficiency, see how to develop an energy-efficiency communication program, read success stories, and more.

For more information about state and local government procurement, go to: www.energystar.gov

1-888-STAR-YES will put you in touch with personnel involved in the ENERGY STAR program at the EPA.

The DOE's energy-efficiency website at:

www.eren.doe.gov/femp/procurement contains the Federal Energy Management Program's recommended contacts for technical information as well as a list of other resources.

The CREST (Center for Renewable Energy and Sustainable Technology) websites are:

<http://solstice.crest.org> lists sites dedicated to energy-efficiency, contains case studies, and discusses funding sources.

<http://gem.crest.org> also includes case studies, and has a state-by-state guide to energy-efficiency resources.

Web sites of other associations that support, or could be enlisted to support, energy-efficiency programs are:

www.naco.org The web site of the National Association of Counties (NACo) which supports the purchase of energy-efficient products by its members.

www.usmayors.org The web site of the U.S. Conference of Mayors. This organization, in collaboration with NACo, sponsors the Joint Center for Sustainable Communities.

www.nlc.org The web site of the National League of Cities

www.icma.org The web site of the International City/County Management Association

www.nalgep.org The web site of the National Association of Local Government Environmental Professionals

www.ncsl.org The web site of the National Conference of State Legislatures

<http://natat.org> The web site of the National Association of Towns and Townships

* * * *

If you have comments about this guidebook or the ENERGY STAR web site, or if you need more information, please call: 1-888-STAR-YES (1-888-782-7937).

EXECUTIVE ORDER

GREENING THE GOVERNMENT THROUGH EFFICIENT ENERGY MANAGEMENT

By the authority vested in me as President by the Constitution and the laws of the United States of America, including the National Energy Conservation Policy Act (Public Law 95-619, 92 Stat. 3206, 42 U.S.C. 8252 et seq.), as amended by the Energy Policy Act of 1992 (EPACT) (Public Law 102-486, 106 Stat. 2776), and section 301 of title 3, United States Code, it is hereby ordered as follows:

PART 1 - PREAMBLE

Section 101. Federal Leadership. The Federal Government, as the Nation's largest energy consumer, shall significantly improve its energy management in order to save taxpayer dollars and reduce emissions that contribute to air pollution and global climate change. With more than 500,000 buildings, the Federal Government can lead the Nation in energy efficient building design, construction, and operation. As a major consumer that spends \$200 billion annually on products and services, the Federal Government can promote energy efficiency, water conservation, and the use of renewable energy products, and help foster markets for emerging technologies. In encouraging effective energy management in the Federal Government, this order builds on work begun under EPACT and previous Executive orders.

PART 2 - GOALS

Sec. 201. Greenhouse Gases Reduction Goal. Through life-cycle cost-effective energy measures, each agency shall reduce its greenhouse gas emissions attributed to facility energy use by 30 percent by 2010 compared to such emissions levels in 1990. In order to encourage optimal investment in energy improvements, agencies can count greenhouse gas reductions from improvements in nonfacility energy use toward this goal to the extent that these reductions are approved by the Office of Management and Budget (OMB).

Sec. 202. Energy Efficiency Improvement Goals. Through life-cycle cost-effective measures, each agency shall reduce energy consumption per gross square foot of its facilities, excluding facilities covered in section 203 of this order, by 30 percent by 2005 and 35 percent by 2010 relative to 1985. No facilities will be exempt from these goals unless they meet new criteria for exemptions, to be issued by the Department of Energy (DOE).