

Improving Energy Efficiency in County Buildings

June / 2008



● Introduction

According to the U.S. Environmental Protection Agency's (EPA) ENERGY STAR® program, buildings use \$200 billion in electricity and natural gas each year. Energy use in commercial buildings and industrial facilities is responsible for approximately 50 percent of U.S. carbon dioxide emissions. The good news is that the opportunity to reduce these emissions is significant, since as much as 30 percent of the energy consumed in commercial buildings is often used unnecessarily or inefficiently.

Any county, regardless of its size or location, can take action to improve its energy use. The National Association of Counties (NACo) has developed a comprehensive guide that aims to assist counties looking to improve the energy efficiency of their facilities – especially those that may be short of resources and time because the information and tools outlined below are cost-free. The guide for energy efficiency in county facilities, based on EPA's Guidelines for Energy Management, leads counties through the following detailed steps and resources to increase energy efficiency of county buildings.

● Commit To Improving Building Energy Performance

- Sign up for the ENERGY STAR Challenge - a national call-to-action to improve the energy efficiency of America's commercial and industrial buildings by 10 percent or more. Each of the nation's 3,066 counties has the opportunity to play a vital, dual role in the Challenge - leading by example by improving their own buildings, and leveraging their relationships with private sector organizations to motivate them to make energy efficiency improvements as well.
- Become an ENERGY STAR partner. This partnership demonstrates a commitment by the county to continuous improvement in the energy efficiency of county facilities.
- Spread the word. After making the commitment to energy efficiency, the county can issue a press release to inform others of its goal.
- Appoint an energy leader and team. To make the implementation of the energy conservation program go more smoothly, appoint an Energy Team to oversee the process. This team can help develop an energy management plan, track the energy use of county buildings, educate staff, advise county officials on potential energy investments and savings, and carry out energy efficiency projects and upgrades.

● Evaluate Current Performance

- Benchmark county buildings. "Benchmarking" explains the process by which a county can compare the energy performance of its facilities to each other, to similar building types across the country, and to the same facility over a period of time. NACo offers free assistance in creat-

ing an ENERGY STAR Portfolio Manager account to benchmark these buildings.

- Research. Both the ENERGY STAR website and NACo's Green Government Initiative offer tips for improving energy efficiency, cutting costs, and county case studies.

● Assess Energy Efficiency In New Projects

- Set an energy performance target for new buildings. Choose an energy use intensity goal for new projects.
- Evaluate potential projects. Rate a building design's estimated energy use, based on the same energy performance rating used in Portfolio Manager with EPA's Target Finder tool.

● Set Goals

- Assess savings ideas. Compare current energy management practices with suggested energy management guidelines using EPA's Energy Management Assessment Matrix.
- Decide where to focus improvements. Decide whether to focus on increasing energy efficiency in all buildings, only those close to receiving the ENERGY STAR, or buildings with relatively lower energy performance levels.
- Consider building upgrade options. The ENERGY STAR Building Upgrade Manual is a guide for planning and implementing cost-effective upgrades that will improve the energy performance of your facilities.

NACo *National Association of Counties*
The Voice of America's Counties

ENERGY STAR® is a government-backed program helping businesses and individuals protect the environment through superior energy efficiency.



LEARN MORE AT
energystar.gov

● Develop An Energy Management Plan

- Decide on a timeline. Establishing appropriate and realistic target dates for goals ensures that they are meaningful and promote change. A combination of short and long term goals can be effective.
- Create a plan of action. Unlike the energy policy, the action plan is regularly updated, most often on an annual basis, to reflect recent achievements, changes in performance, and shifting priorities.
- Ensure that the plan is detailed enough to cover daily operations. This can include tasks that are as simple as turning off lights when leaving a room, unplugging unused appliances, or turning off the air conditioning when the building is unoccupied.
- Educate employees. Successful energy management plans have not only the support of supervisors, but also the support of those who will directly implement the activities.
- Motivate. Create competition to motivate employees to save energy.

● Consider Funding Options

- Look into energy performance contracts. Performance contracting offers counties the opportunity to make timely facility improvements with minimal up-front costs and equipment performance risks while reducing energy bills.
- Use the Cash Flow Opportunity Calculator. The Cash Flow Opportunity Calculator is an interactive financial calculator available on-line that helps counties quantify the cost of delaying investment in upgrades.
- Find discounted products. Counties are eligible to participate in the U.S. Communities Government Purchasing Alliance - a program co-sponsored by NACo - which was established to provide a national structure for local government agencies to make use of their collective purchasing power and to improve the overall effectiveness of their purchasing processes.
- Apply for grants. The Catalogue of Federal Domestic Assistance and Grants.gov

both offer opportunities to receive money to help counties start their energy efficiency programs.

- Work with an energy efficiency service provider. ENERGY STAR service and product providers can help identify, prioritize and implement quality projects that will improve energy management.

● Evaluate Progress

- Assess progress at two stages. Monitor the project throughout its implementation to make necessary adjustments and ensure your county is on target, and then continue monitoring after the project is completed to ensure that the improvements are working properly.
- Review the plan of action. Evaluate what was successful and what was not.

● Recognize Achievements And Spread The Word

- Achieve "Designed to Earn the ENERGY STAR." Design projects for county courthouses, office buildings, and other building types are eligible for Designed to Earn the ENERGY STAR if the design achieves a 75 or better in Target Finder.
- Apply for the ENERGY STAR. Buildings such as county courthouses and office buildings are eligible to achieve the ENERGY STAR if their energy performance rating in Portfolio Manager is 75 or higher.
- Receive recognition from NACo. Counties can submit information about energy efficient changes and achievements to NACo. This information may be published in County News, online newsletters, fact sheets, and other educational materials.
- Provide internal recognition. Recognize those in the county who have worked hard and achieved energy efficiency.
- Educate Residents. Educate the community about the benefits of reducing energy use through county-run venues such as community college websites or newspapers, cable access TV stations, public billboards, and advertising on county vehicles.

Blue Earth County, Minnesota Population: 58,030 County Seat: Mankato

Blue Earth County has worked hard to incorporate energy efficient building practices into both its new and existing facilities. The Blue Earth County Courthouse and Government Center was awarded the ENERGY STAR in both 2006 and 2007, labeling it as among top 25 percent of energy efficient buildings in the U.S. In order to achieve this recognition, Blue Earth County made a number of changes in its facilities:

- switched to compact fluorescent light bulbs and energy efficient flat-screen monitors,
- purchased a properly-sized cooling tower with drift eliminator,
- bought a diesel generators to reduce electrical costs,
- installed insulating ductwork and patched leaks,
- cleaned the heating and cooling coils, and
- implemented an aggressive recycling program.

Blue Earth County has proven itself to be a leader in energy efficiency. It is home to the first courthouse in Minnesota that has received an ENERGY STAR, and the county is in the process of building the Blue Earth County Justice Center, which is designed to meet the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED®) standards. The county is also extremely proactive in sharing ideas with residents and other counties. In celebration of its ENERGY STAR rating, Blue Earth County sponsored an ENERGY STAR Concert on the Courthouse Lawn and distributed information through presentations, displays, and its website.