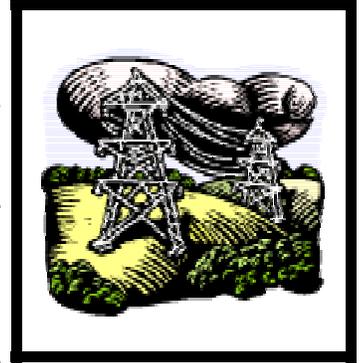




SUSTAINABLE ENVIRONMENT for QUALITY of LIFE



LOCAL GOVERNMENT ENERGY PLAN

What is it?

A local government energy plan involves the procurement and management of energy resources and production, the sale and distribution of energy, and the management of spent fuel resources. Energy management includes all types of mass-produced energy (e.g., hydroelectric, nuclear, wind, solar, or fossil fuels). The plan establishes a management policy, names a director, outlines the process and evaluation procedures, and provides for the ongoing operation of the energy savings process. Outcomes of a local government energy plan may include not only cost savings to the jurisdiction, but also more efficient energy utilization that helps reduce peak energy demand.

Costs

Development of an energy plans requires staff time from municipal employees and, depending on the action items selected, may require contracting with consultants.

This Action Item can be implemented as a

- POLICY
- ORDINANCE
- PROGRAM



Shared Impact and Benefits

- Energy plans do not in themselves reduce ozone; however, actions taken as a result of energy planning can reduce other air pollutants such as carbon dioxide.
- The widespread use of energy management practices for energy efficiency may help to reduce peak energy demands, which may help energy producers avoid the use of “dirtier” production techniques to satisfy peak demand periods.
- The Department of Energy reports that governmental buildings **waste approximately one-third** of the energy used in the facility. Energy plans help jurisdictions reduce waste, saving money.
- The City of Phoenix saved \$100,000 in the course of just two years simply by monitoring its energy bills for correct charges.
- Hawaii’s Energy Division estimates that their energy plan saves that state money while reducing greenhouse gas emissions by about 2,800 metric tons of carbon equivalent each year.

How long does this take to implement?

The initial plan may take up to a year to complete depending on the number of public meetings. The energy plan should be monitored and evaluated every 2 to 3 years.

The Bottom Line

- Communities can reduce energy costs and potentially contribute to improved air quality by implementing a municipal energy plan.
 - A successful program has a director and follows clearly delineated policies. Monitoring is critical to success.
- Interested? Read on!**



Who needs to be involved in implementation?

- Governing Board to support the program.
- Municipal managers, county managers, and department administrators
- Community groups
- Business leaders including chamber of commerce when public input is gathered
- Environmental groups
- Citizens

Action Steps

1. Adopt a policy and/or resolution to establish energy conservation as a local goal. This policy can be set by management or established by the governing board. An example of a resolution can be found at www.mississippi.org/programs/energy/sb_3113.htm or <http://www.sustainable.doe.gov/municipal/codtoc.shtml>
2. Establish accountability for the process by defining roles and appointing a director.
3. The energy director should form a multi-disciplinary team from key areas within the municipality. Include every part of the organization in the survey and process. It is especially important to include facility users and maintenance personnel, so that they understand both the benefits of the plan and actions required of them in implementing it.
4. Determine how much is spent on energy across the entire organization. Start by participating in the free energy efficiency assessments sponsored by the Energy Offices in both Carolinas. Energy office representatives can make cost-saving recommendations. Program information is available at <http://www.energync.net/> and www.state.sc.us/energy/rebuildingsc.htm. Other consultants are available for a fee to analyze your municipality.
5. Review programs in other areas. Many local governments and state governments have developed customized energy management programs. Read about some of their efforts at www.energystar.gov and sign up for monthly web conferences by clicking on "calendar". Best energy management practices are highlighted each month. Also, see: www.pasadenaisd.org/newsreleases/october02/october21.htm.
6. Determine which actions you can implement. While an energy assessment will give you the best overall picture of your energy usage and potential savings, just monitoring your utility bills can be a good place to start.
7. Prioritize actions and develop a plan. The plan should include:
 - ✓ Establishing a methodology for identifying energy performance opportunities
 - ✓ Identifying the means for quantifying costs and energy savings opportunities
 - ✓ Identifying milestones and goals and dates for achievement.
8. Allocate a budget.
9. Train and motivate staff. Everyone in the organization needs to participate. Training employees and providing educational and motivational materials helps staff understand the importance of energy performance, provides them with the knowledge and information necessary to make informed decisions and demonstrates the commitment of senior management to energy efficiency efforts.
10. Implement and evaluate your actions.
11. Publicize the results. Track environmental benefits and costs—particularly savings and air quality benefits.

A detailed description of the planning process can be found at www.energystar.gov/. Click on "govt". Keep in mind that according to the U.S. Department of Energy, municipalities may be able to save as much as 35% by adopting an integrated approach to energy efficient upgrades.



Resources

- Many utility companies offer financing for major energy-saving actions. The North Carolina State Energy office offers an Energy Improvement Loan Program. See details at [http://www.energync.net/bro-4%20\(1\).pdf](http://www.energync.net/bro-4%20(1).pdf). The South Carolina Energy Office administers a loan program for nonprofit organizations and public agencies. Details at <http://www.state.sc.us/energy/consefund.htm>
- An energy audit should indicate if a major retrofit can be financed with the savings in energy costs.
- Some actions, such as purchasing “Energy Star” appliances, could be included in the normal replacement/maintenance cycle.
- The Energy Offices in both Carolinas sponsor energy efficiency assessments for public and non-profit facilities **at no cost**. A newsletter with energy saving advice is available at <http://www.energync.net/Energy2/news0203.pdf>.
- Energy service performance contracting can finance equipment so that energy savings are guaranteed to pay for the equipment and can be treated as an operating cost in the budget. If you have questions about performance contracting or need assistance, please contact the North Carolina State Energy Office at 919-733-2230.
- The North Carolina State Energy office maintains a list of energy service performance contractors. Call the 919-733-2230 or visit the Website <http://www.energync.net/Energy2/perfcont.htm> and click on ESOC.
- Advanced Energy is a non-profit organization that provides testing, training, and consulting, as well as development of a range of energy-efficient practices. Their website at www.advancedenergy.org provides information about their work and resources for local energy planning.

Who’s doing this?

- Buncombe County Schools (North Carolina) implemented energy savings recommendations at one high school and saved \$56,000.
- The City of Asheville recently completed an energy audit and now saves \$110,000 annually.
- Wake County is a listed participant in the Energy Star energy-savings program.
- Clemson University will install lighting upgrades and save an estimated \$69,000 annually.
- Greenville County (South Carolina) made changes to County buildings as per recommendations made for energy savings.
- San Jose’s (CA) comprehensive energy plan has saved \$7 million per year on its energy bill, \$1.5 million of which comes annually from switching from mercury vapor to high-pressure sodium streetlights.

Any jurisdiction can implement an energy plan, and use it as a basis for selecting the most cost-effective means of improving energy efficiency.

Tracking Progress

- Contact Centralina Council of Governments when you’ve implemented this action. Call Carol Lewis at 704-348-2730 or clewis@centralina.org, so that we can show your actions as part of the regional effort.
- Share with us any cost savings you experience, based on usage prior to the implementation of your plan. Depending on the particular aspect of energy efficiency you addressed, we may be able to assist



Basic Information

- Energy management planning requires an integrated approach, which should, according to the EPA, include the following:
 - ✎ **Involve the right people in the organization.** Top management must be committed. Senior managers must monitor energy performance and pollution prevention.
 - ✎ **Benchmark energy performance.** Benchmark to optimize use and cost savings. EPA offers “portfolio manager” on the Energy Star web site. See: www.energystar.gov.
 - ✎ **Communicate results.** Let participants and the public know about your success.
- Municipalities can approach the planning process from a slightly different angle, becoming a member in the Energy Star program sponsored by EPA. Energy Star provides the tools and strategies for local governments. Members are required to sign a membership agreement stating that they are:

“committed to improving energy performance by :

 1. Measuring, tracking, and benchmarking energy performance
 2. Developing and implementing a facilities and operations plan to improve energy performance
 3. Educating their company and community about their achievements and partnership.” (www.energystar.gov)
- Local government energy planning goes by many names. The Department of Energy (DOE) refers to “local energy programs,” and “energy efficiency programs.” The Smart Communities group refers to them in the Sustainable City Project, which also includes building codes, recycling and solid waste management in the plan.
- Many municipalities do not address municipal energy use because of the belief that taking actions to reduce energy use will cost either too much money or require an unaffordable capital expenditure. The Local Government Energy Savings Organization (LoGESO), a consortium of North Carolina municipal organizations, reports municipalities also believe most projects are too small, not easy to identify and difficult to finance. An energy assessment may address the first two issues and two new finance arrangements may help with the cost issue.
- EPA reports an integrated approach to energy management would save municipalities 35% of their energy costs. According to Neil Zabler and Katy Hatcher in *Government Finance Review* (February, 2003), municipalities can use the savings in two different financing scenarios to pay for energy-saving equipment: energy services performance contracts and tax-exempt lease purchase. Under most energy service contracts, the municipality contracts with a provider who guarantees that energy savings will meet or exceed the contract payments. If the savings do not materialize, the provider pays the difference. Most local governments are familiar with lease-purchase arrangements. A more detailed discussion of these alternatives can be found in the publication referenced above.
- Environmental Management Systems (EMS) is another well-known planning process that can lead to a certification, called ISO 14001. Broader social issues like odor management and health and safety issues are included in the plan. Detailed information is available at: www.peercenter.net.



FAQ's

Q: What are typical goals that municipal energy plans address?

A: The City of Saint Paul adopted the following goals and benefits:

1. Install new, durable, money-saving equipment to improve energy efficiency and the work environment.
2. Reduce operating budgets and on-going maintenance costs for taxpayers and create jobs.
3. Reduce the drain on natural resources and reduce CO₂ emissions to protect the global climate.
4. Provide a role model and resource for other governments and businesses.

Employee training, indoor air quality improvement, enhanced partnerships, and safer working conditions.

Q: Who pays for the effort?

A: Municipalities use several cost centers to support energy programs. In Saint Paul, program costs are paid with money earned through energy savings using no taxpayer dollars. Administration includes audit and retrofit coordination, public information, coordination with energy service provider, employee training and education, facility monitoring, and outreach to extend benefits to other sectors.

Q: What does a typical energy assessment cover?

A: A typical assessment will include:

- Utility bill analysis: load factor, rate structure, etc
- Energy use benchmarking: Energy Star analysis
- Walk-through audit
- Lighting analysis: levels, need, upgrades
- HVAC operations inspection
- Building envelope
- Financing options referral
- Reports and follow-up

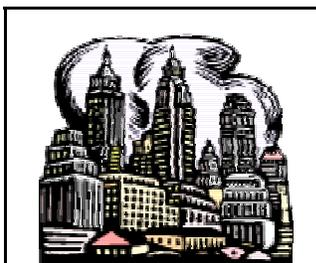
Q: How much does an ENERGY STAR analysis cost?

A: EPA provides the information and software free. See the ENERGY STAR website. The municipality provides the staff to complete the work.

Q: How is new construction affected by a municipal energy plan?

A: Some localities choose to include energy-saving building standards for new construction in their energy plans. The South Carolina Energy Office includes this information on their website: <http://www.state.sc.us/energy/public/planning.htm>. The U.S. Department of Energy's *Building Standard and Guidelines Program* offers training, material and software for building codes. Website: www.energycodes.org/. The Building Codes Assistance Project also offers help to municipalities. Website: www.crest.org/efficiency/bcap.

Intersecting Interests



CLEAN CITIES

The Mission of the National Clean Cities Program (locally represented by the Centralina Clean Fuels Coalition and the Palmetto State Clean Fuels Coalition) is to improve air quality, reduce petroleum dependence, and expand alternative fuel use and technology.

For More Information

- ✦ The South Carolina Energy Office
<http://www.state.sc.us/energy/>
- ✦ The North Carolina State Energy Office
1340 Mail Service Center-Raleigh, NC 27699-1340
<http://www.energync.net/>
- ✦ The U.S. Department of Energy
<http://www.energy.gov/efficiency/index.html>
- ✦ The U.S. Environmental Protection Agency
Energy Star Building Program
www.epa.gov/buildings

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