



Recharging Local Economies:

New Perspectives on Regional Energy Efficiency Solutions

For many pensioners, retirement is an opportunity to relax, hone the golf game and tend the herb garden. For a noble crew of retirees in Asheville, North Carolina, however, retirement means donating time to the community in a way that will benefit generations to come. With decades of experience in trades such as engineering, science and architecture, retired volunteers in Land-of-Sky Regional Council's Waste Reduction Partners program have successfully reduced energy consumption by over 64,000 megawatt hours and saved over 78 million gallons of water through water efficiency projects since 2000 — a feat that few citizens would be expected to lay claim to, let alone a band of seniors who have earned the right to some time for themselves.

Divine Innovation

As environmental concerns become a priority for local governments, innovative ideas similar to Waste Reduction Partners are burgeoning from all corners of the country to maximize energy efficiency and minimize waste streams. In many cases, regional development organizations are spearheading these efforts in concert with local authorities, collaborating across multiple jurisdictions to tackle regional environmental challenges together.

“The trick is getting local officials to realize what’s good for the environment is also good for the town budget,” says Joe McKinney, executive director of the Land-of-Sky Regional Council. Land-of-Sky has administered the Waste Reduction Partners program

since 1992, and those involved in the program are witnessing the paradigm shift firsthand. “Gone are the days of reckless behavior toward our natural resources,” McKinney says. “Local governments are being held more accountable by the people they represent.”

For many communities the motivation is present, but the resources and knowledge necessary to initiate environmental programs are often lacking. Especially where there is little top-down guidance from state and federal government, rural and small metropolitan communities are dependent upon the intrepid few to pioneer efforts that embrace forward-thinking environmental concepts.

This trend is slowly changing as state-level renewable energy standards emerge and stronger, federally sponsored incentives begin to take shape. As of January 2009, 27 states have implemented mandatory renewable energy portfolio standards (e.g. 25 percent clean energy by 2025)¹ and the 2009 American Reinvestment and Recovery



*Waste Reduction Partners
energy efficiency analysis*

Act (federal stimulus bill) contained \$39 billion in energy investments and \$20 billion in clean energy tax incentives.² But altering the mindset of a fossil-fuel driven economy nearly 300 years in the making takes time, and grassroots efforts are also necessary components in hastening the migration toward clean and sustainable forms of energy production.

Utility Bill Analyses - Easy Pickins' for Energy Efficiency Improvements

“Before retrofits are designed for drafty buildings and expensive solar paneling is procured for heating and electricity, a basic analysis of utility bills should be the biggest priority for local governments,” says Stacy Richards, director of the Energy Resource Center for SEDA-COG in Lewisburg, Pennsylvania. “Until you know where the foremost [energy] leakages and inefficiencies exist, you may be addressing the least critical problem.”

A review of monthly electricity consumption for Bellefonte, Pennsylvania (pop. 6,184) illustrates that, of all the components involved in running a community, water supply and wastewater treatment can represent over 80 percent of electricity consumption, translating into over \$300,000 in annual electricity costs.³ By replacing

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- Joe McKinney, Land-of-Sky Regional Council**

antiquated motors and pumps with variable speed motors and slow-start pumps, communities can flatten their 'peak load' spikes, often resulting in significantly reduced electricity bills.

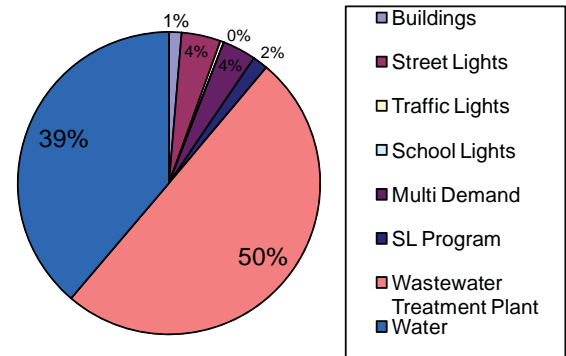
Understanding how to increase energy efficiency and reduce electricity costs is the primary goal behind the Pennsylvania Energy Partnership, a program designed and managed by SEDA-COG and the state's six other Local Development Districts (LDD's) in conjunction with the Pennsylvania Department of Community and Economic Development. The purpose of the project is to link environmental stewardship with informed economic choices for local governments. Offering complementary technical assistance in the form of utility bill analyses and energy assessments (among a host of other programs), LDDs have witnessed a demand for services that has outpaced their ability to accommodate some interested communities. Of the countless municipalities who have had assessments completed, almost all have recognized a significant decrease in utility costs.



SEDA COG energy efficiency audit and LED-traffic signal installation

Recommendations to increase efficiency range from minor behavioral steps such as turning off lights and programming HVAC units, to more profound measures incorporating more

2006 Electricity Consumption Bellefonte, PA



Source: SEDA-COG

energy efficient technology or technology that is powered by renewable sources of energy.

Other facets of the Pennsylvania Energy Partnership are equally important, if not entirely glamorous. One program assembled communities from around the state to purchase a bulk order of high-efficiency LED-traffic signals. The coordinated effort provided a total savings of \$59,000 in equipment costs for municipalities, in addition to the long-term electricity and maintenance cost savings.

Focusing on the Greater Good

In November of 2007, the Mid-Ohio Regional Planning Commission (MORPC) in Columbus established the Center for Energy and the Environment to "make green easy" for its 40 local government members. By adopting a cross-disciplinary, four-pronged approach that encompasses air and water quality, sustainable growth planning and clean energy, the center now acts as a universal resource and catalyst for regional environmental projects.

Similar to SEDA-COG, MORPC's Center for Energy and Environment offers energy assessments to municipalities that desire a higher level of operational



efficiency. For communities looking to see how they rate with their neighbors, the data gained from assessments can be compared region-wide by calculating a carbon footprint based on a community's building square footage.

10 Guiding Principles: Central Ohio Green Pact

- Greening Public Fleets
- Growing a Strong, Green Economy
- Collaborating to Purchase Green Products
- Adopting Sustainable Land Use Policies
- Building Green Facilities and Reducing Energy Consumption
- Reducing Waste
- Linking Economic Development, Housing, Land Use and Transportation Planning
- Reducing Emissions and Climate Protection
- Preserving Green Space and Creating Greenways
- Improving Mass Transportation

Source: MORPC Center for Energy and Environment

The center is also driving educational aspects of energy efficiency and clean energy. In addition to partnering with nearby Ohio State University and encouraging local youth groups to participate on the center's Advisory Council, the center offers assistance to local schools to integrate clean energy concepts into the teaching curriculum. At the Africentric High School in Columbus, for example, a 1-kilowatt roof-top

solar panel enables hands-on experience for students to study how seasons, climate and weather affect the system's ability to produce power.

Outreach and technical assistance are merely spokes in the wheel for MORPC's Center for Energy and Environment. "Our goal is to not only provide a means for collaboration and networking for our local governments," says Erin Miller, director of the center, "but ideally, we want to integrate our environmental values into sound economic development principles for the region."

Taking the initiative, MORPC has also partnered with 22 communities in the region to sign the "Central Ohio Green Pact." Bound by ten guiding principles, the pact is a way of indicating to residents that area local governments are willing to lead by example.

The Take Away

Navigating through the current labyrinth of rebates and credits for energy-related incentives can be a daunting task. Until the path becomes more worn through experience and documented success, regional development organizations can use this opportunity to differentiate themselves and increase their value to the communities they serve. By appointing an energy expert to sift through various methods of efficiency, and by accessing the knowledge, expertise and experience of peers, RDOs can help lead the way to cleaner energy through regional solutions, partnerships and strategies. §

Resources

U.S. Department of Energy

Energy Efficiency and Conservation Block Grant Program (EECBG)

www.eecbg.energy.gov

Funding for the EECBG Program under the ARRA totals \$3.2 billion. Of this amount, approximately \$2.7 billion will be awarded through formula grants. In addition, more than \$400 million will be allocated through competitive grants, which will be awarded through a separate future Funding Opportunity Announcement (FOA). The remaining funds will be used to provide a suite of technical assistance tools to state, local and tribal grantees.

U.S. Environmental Protection Agency

State and Local Climate and Energy Economic Recovery Resources

www.epa.gov/solar/energy-programs/state-and-local/recovery.html

The American Recovery and Reinvestment Act of 2009 offers unprecedented opportunities for state and local governments to reduce energy, reduce greenhouse gas (GHG) emissions and create jobs through the implementation of clean energy programs. The EPA has developed numerous resources that can assist state and local governments as they work to ramp up existing clean energy programs and create new ones.

U.S. Department of Agriculture

Energy Matrix

www.energymatrix.usda.gov

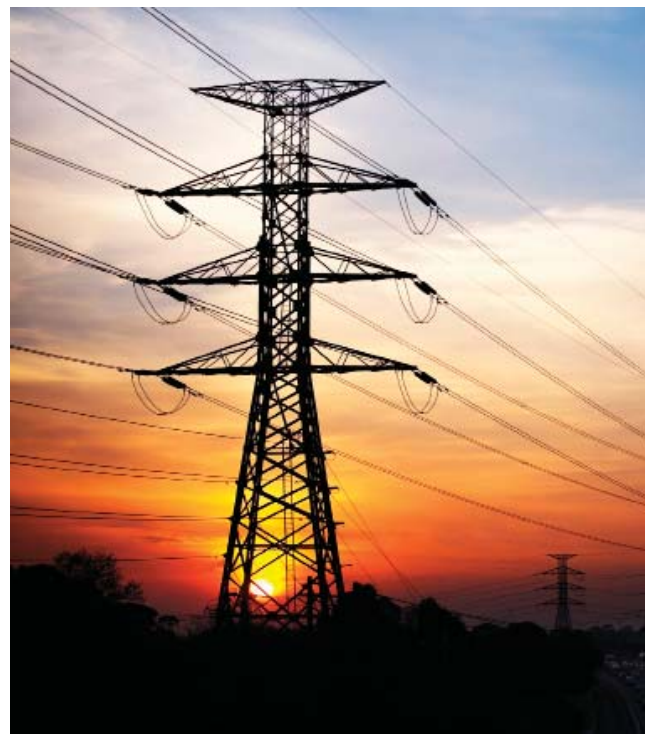
USDA has many programs to assist farmers, rural residents and the nation to respond to energy-related issues and opportunities. These range from basic scientific research to the development and commercialization of new technologies.

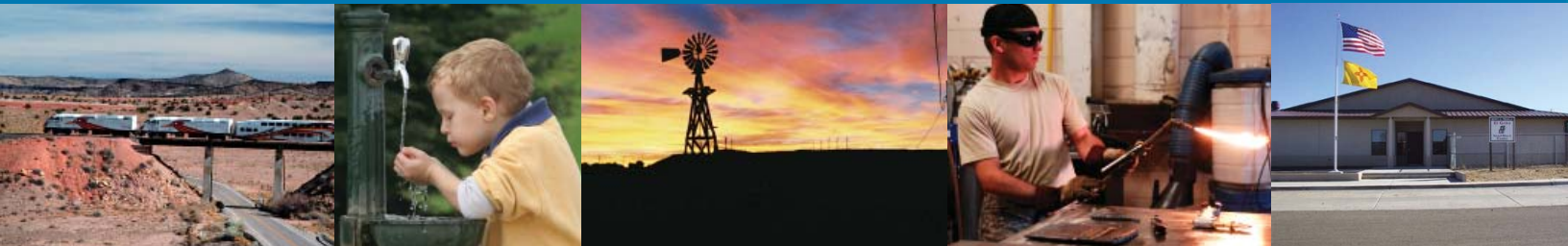
Because USDA's energy-related programs are broad in scope and extend among many USDA agencies, they have established a navigational aid called the Energy Matrix.

Database of State Incentives for Renewable Energy (DSIRE)

www.dsireusa.org

DSIRE is a comprehensive source of information on state, local, utility and federal incentives that promote renewable energy and energy efficiency.





¹Renewable Portfolio Standards (RPS), Pew Center for Global Climate Change (published January 8, 2009), www.pewclimate.org/sites/default/modules/usmap/pdf.php?file=5907

²Branigin, William, "Obama Lays out Clean-Energy Plans," *Washington Post* (March 24, 2009), www.washingtonpost.com/wp-dyn/content/article/2009/03/23/AR2009032301350.html

³Richards, Stacy, "Pennsylvania's Energy Partnership" presentation, SEDA-COG Energy Resource Center (April 30, 2009)

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This report was authored by NADO Research Foundation Environmental Program Manager Mike Bellamente. This material is based upon work supported by the Environmental Protection Agency under Agreement No. EM -83295501. Any opinions, findings and conclusions or recommendations expressed in this publication are those of the author and do not necessarily reflect the view of the Environmental Protection Agency.



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