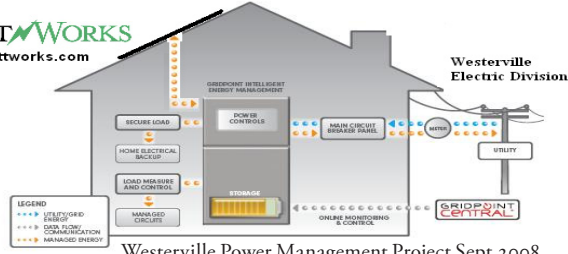


## Westerville Smart Grid and Solar Power Project



WATTWORKS  
www.wattworks.com



Westerville Power Management Project Sept. 2008

The City of Westerville Electric Division has secured a grant from the American Public Power Association (APPA) Demonstration of Energy Efficient Developments (DEED) in the amount of \$75,000 for the purpose of installing and demonstrating seven energy management appliances that integrate clean, renewable, solar energy; energy storage and load management in a project entitled “Smart Grid and Solar Power for Public Power Utility Consumers.” The seven, energy management appliances, manufactured by GridPoint, Inc., will be installed on the premises of seven different Westerville electric consumers – six commercial sites and one residential site. To be eligible to participate in the project, consumers must fund the installation of a 3,500 watt (3.5kW) photovoltaic (solar) array.

The City of Westerville Electric Division will fund the installation of the seven GridPoint Connect energy management appliances at an approximate cost of \$22,000 each. Watt Works, Inc., a Columbus-based energy efficiency engineering consulting firm and the local GridPoint, Inc. vendor, will serve as Westerville’s contractor providing turnkey services to supply, install, and commission the seven GridPoint Connect to devices. WattWorks Inc. will also provide the seven 3.5kW solar arrays, which will be purchased by the consumer project participants, at an estimated installed cost of \$30,000 each.

Each consumer project participant facility will be provided an Energy Analysis to highlight energy efficiency measures with the costs and paybacks spelled out. Energy

use avoided is always the most cost effective power source, and most buildings can save 15 to 20% of their energy costs by investing in the right conservation measures that will take less than 5 years to pay for themselves. The study includes providing a detailed Energy Analysis by the project-contractor, WattWorks Inc., and reduces energy needs in parallel with the load timing and solar supply portions of the project. Implementation of the conservation recommendations is outside the scope of this project and up to the user, but the participants in the study will be advised of the value in reducing their energy costs.

Depending on the tax status of the end-user, their solar panel installation may be eligible to receive a 30% tax credit from Federal and IRS rules that allow an accelerated depreciation schedule. This effectively reduces the initial cost, estimated conservatively at \$30,000 for a 3,500 watt (3.5kW) solar array.

Good reasons to link the GridPoint Connect and solar panel installations, which are otherwise only loosely dependent upon each other for savings, are to take advantage of the capabilities within the GridPoint Connect equipment to monitor and control the solar power production, and to use the GridPoint Connect internal inverter capacity to reduce the hardware costs for the solar installations. Linking these aspects into one project also has promotional value and could substantially reduce Westerville’s cost of managing the projects and addresses the issues of power supply all at once.

*Andy Boatright*

## Central Ohio Solar Tour: A Pathway of Firsts

The Governor’s Gala on Friday, Oct. 3, the statewide solar tour kickoff, was an elegant beginning to many new partnerships, tour sites and community members catching the Solar Tour buzz. Mark Shanahan, the governor’s Energy Advisor, and the governor’s wife, Frances Strickland, spoke to more than 300 people about the amazing growth in renewable energy Ohio is seeing.

As tour goers can attest, more solar homes than ever before were featured on the 2008 Central Ohio Tour. On seven tours across Franklin, Delaware and Licking Counties there were some 1,117 site visits. Tour goers enjoyed some first-ever tour stops, like the Stowell residence in Dublin, which features a 4.9 kW PV system. Stowell joked to tour goers, “[My system] is a better investment than the stock market right now.” Another new stop, the Karaffa residence in Granville, whose historic home boasts a 1.7 kW system, shared with tour goers “to the pioneers go the arrows,” as they have blazed a trail creating new zoning rules to allow renewable energy installations in their historic district.

Tour sponsor MORPC gave an energy-audit tour of its facility in the Brewery District, and Ohio State University’s Institute for Energy and Efficiency helped to organize Ohio’s first-ever bike ... or bus tour that had stops at their campus’ LEED-certified 4-H building, PV Nanotech Research Lab and Wetlands.

Tour goers in eastern Columbus heard from Greg Hitzhusen about how Ohio Interfaith Power and Light (OhIFPL) is inspiring action on renewable energy among congregations of different faiths. Then, at the newly completed, high-efficiency, inner-city solar home on N.21<sup>st</sup> St. Roger Beck presented the home’s various technologies from solar thermal to smart-home controls. At some other favorite residential stops, the Bradys explained their battery-backed solar PV system and energy savings, while Kurt Keljo explained how he integrated a solar array with a pergola, deck and sauna using recycled materials and a living roof.

If you would like to be on the 2009 Solar Tour, contact the office: (614) 985-6131.

*Sarah Straley and Mark Waite*