

ENERGY TIDBITS – July 2009

Michigan will receive approximately \$1 billion in American Recovery and Reinvestment Act (ARRA) funds for energy efficiency and renewable energy. DELEG's Bureau of Energy Systems is charged with coordinating ARRA funds in a number of energy-related programs including an expanded State Energy Program, Energy Efficiency Conservation Block Grant Program (EECBG) Program, and Energy Efficient Appliance Rebate Program. Further details will be made available on the state's website at www.michigan.gov/recovery.

State Energy Program (SEP) plan has been submitted to the U.S. Dept. of Energy. The \$82 million plan includes \$57 million for energy efficiency and distributed generation measures in state owned buildings and \$24 million for industrial energy efficiency and supply chain diversification in the renewable energy sector. The plan is posted at www.michigan.gov/energyoffice under ARRA.

General Electric has announced that it will hire 1,100 workers at a research and production center in Van Buren Township in western Wayne County. The center will focus heavily on renewable energy, especially wind energy technology. GE officials indicated they would invest \$100 million to establish the Michigan operation, officially called the Advanced Manufacturing and Software Technology Center. GE will hire engineers, scientists, software developers & other "knowledge economy" workers for the new 100,000 sq. ft. site, which is supported by \$60 million in state incentives.

Michigan International Speedway new suite and media center will make the racetrack one of the largest producers of green energy in American sports. The solar-powered, 31-suite building and media center will be outfitted with approximately 8,000 square feet of solar panels that will produce 40 kilowatts. The solar panels are from Uni-Solar in Auburn Hills. The existing suite building will be torn down this fall and replaced by the new green building over the winter.

Michigan Green Communities Challenge has been announced by DELEG and the Michigan Municipal League. The program will provide communities with tools to incorporate energy efficiency and conservations strategies. Daniel P. Gilmartin, executive director and CEO of the League, added, "At its most basic level, the Challenge is a recognition program developed through the joint efforts of the Bureau of Energy Systems and the League and is intended to provide a roadmap for all communities—large and small—to 'go green.' The Challenge is designed to assist communities that apply for funds under the Energy Efficiency and Conservation Block Grant Program. http://www.mml.org/resources/educenter/green_challenge.html.

Great Lakes Entrepreneur's Quest hosted its Statewide Business Plan Competition Award Ceremony with partner organizations Automation Alley and NextEnergy. The GLEQ \$25,000 Grand Prize in the Emerging Company category was awarded to Kinetic Wave Power LLC of Midland which has developed unique technology to use renewable energy contained in ocean waves. In the New Business Idea category, Advanced Battery

Concepts LLC of Midland received the First Place cash award of \$5,000. Advanced Battery Concepts has developed battery electrode technology, branded GreenSeal, which enables dramatic improvements in battery performance while lowering costs.

Floating Wind Turbine has been installed by StatoilHydro and Siemens 12 km southeast of Norway at a water depth of 220 meters. Over the next two years, the floating 2.3 MW wind turbine will be tested. The turbine is designed for water depths of 120-700 meters. The floating structure extends 100 meters beneath the surface and consists of a steel floater filled with ballast fastened to the seabed by three anchor wires.

Check out a regional renewable energy map at www.capitalareagreenmap.org.

Energy Optimization Collaborative to maximize Michigan's energy efficiency effort was kicked off by the MPSC on June 29. To ensure that the energy optimization programs approved for all electric and natural gas utilities are successful, the collaborative will examine energy efficiency measures and energy savings. The participants will make recommendations to improve the utility EO plans. Utilities, energy efficiency experts, equipment installers, and other interested stakeholders are expected to participate.

Experimental Advanced Renewable Program (EARP) has been announced by Consumers Energy and will begin on August 27. The company expects to begin accepting interconnection applications for EARP systems after July 1. The program offers the following rates for qualifying photovoltaic systems:

- residential in 2009 - \$0.65/kWh
- residential in 2010 - \$0.525/kWh
- nonresidential in 2009 - \$0.45/kWh
- nonresidential in 2010 - \$0.375/kWh

The rates paid will be fixed by contract for up to 12 years. Residential systems must have a name plate capacity of at least 1 kW, with a maximum size of 150 kW. Commercial systems must have a minimum nameplate capacity of 20 kW, with a maximum size of 150 kW. Systems with a battery back up system or other energy storage system are not eligible. Electricity from the PV system must be delivered to the utility, and the utility will own any Renewable Energy Credits and Capacity associated with the system. Participants will pay a System Access Charge that is equivalent for the existing distribution account. Installed systems must be manufactured in Michigan or constructed by a Michigan work force. To enroll, customers will follow the interconnection process which is currently being revised. The EARP pilot has a capacity limit of 2,000 kW, with 500 kW reserved for residential customers. Participants will be taken on a first come, first serve basis. Interested customers may begin reserving space in the queue by emailing AR_Tariff_Inquiries@cmsenergy.com and providing the name and address of the Consumers Energy customer, the installation location, the proposed size of the system, and the expected rate class.

Light Bulbs have new national energy efficiency requirements that will save more energy than any other standard ever issued. The new standards will make the hundreds of millions of fluorescent lamps that light offices, stores, and factories more efficient. They also will phase out conventional incandescent reflector lamps. The new lamp standards

will take effect in 2012. Efficient "T8" lamps will replace "T12" lamps. For reflector lamps, standard incandescent and halogen technology will be replaced with halogen infrared reflector technology. According to DOE, the new standards will save up to 1.2 trillion kWh's over 30 years, an amount about equal to the total consumption of all homes in the U.S. in one year. Businesses and consumers will gain \$35 billion in net savings. DOE is slated to set a total of 25 new standards during the current presidential term.

Wind Energy Resource Zone Board has issued its proposed report and has identified 4 regions with the highest wind energy potential. The report, which looked only at utility-scale wind energy on land, was submitted to local governments in the affected areas for comments due Aug. 4. The board will also hold two public hearings. The four regions are all in the Lower Peninsula, one in the Thumb and three along the western side of the state. Region 1 includes parts of Allegan County; Region 2 includes parts of Antrim and Charlevoix counties; Region 3 includes parts of Benzie, Leelanau and Manistee counties; and Region 4 includes parts of Huron, Sanilac, Tuscola, Bay and Saginaw counties.
http://www.michigan.gov/mpsc/0,1607,7-159-16393_52375---,00.html

Western Michigan University's College of Health and Human Services is the first building in SW Michigan and one of only three in the state to meet energy and environmental standards for an existing building. The WMU building achieved gold-level certification from the U.S. Green Building Council making it the first LEED-EB Version 2.0 certified higher education building in the country to achieve a rating higher than silver. It is also the highest certified level for any LEED-certified building in Kalamazoo. Achieving gold status involved documenting sustainable practices with storm water management, site erosion and light pollution control, water usage in restrooms and landscaping, ozone-free cooling systems, recycling and waste management, sustainable cleaning products and policies, ventilation standards, daylight harvesting and lighting control, thermal comfort monitoring and increased air filtration. For more information contact Peter Strazdas at peter.strazdas@wmich.edu or (269) 387-8584.

University of Michigan's solar house that competed in the 2005 Solar Decathlon in Washington, D.C. has found a home at the Matthaei Botanical Gardens. The 660-square foot home was designed and built by a team of 150 students, faculty and local volunteers. The house is open for tours and the university will conduct a two-year study of how the house's sustainable energy systems perform.

Vermont has enacted a law that establishes feed-in tariffs for renewable energy, the first legislation calling for a full system of advanced renewable tariffs in the US. The policy bases the tariffs on the cost of generation plus a reasonable profit. The key elements of H. 466 include: program cap of 50 MW; 2.2 MW cap on project size; contract terms of no more than 20 years; wind energy tariffs of \$0.20 per kilowatt-hour (kWh) for output of less than 15 kW and \$0.14/kWh for output of 15 kW or more; landfill gas and biogas tariffs of \$0.12/kWh; and a solar energy tariff of \$0.30/kWh.

Financial Analysis of Residential PV & Solar Water Heating Systems by John Richter can be found at www.michigan.gov/eorenew under Publications. John looks at various financial scenarios for Michigan solar systems.

Energy Tidbits is free and is prepared by John Sarver, Michigan Dept. of Energy, Labor, & Economic Growth. To subscribe, contact sarverj@michigan.gov. Previous copies can be found at www.michigan.gov/energyoffice under Publications.