

## ENERGY TIDBITS – December 2008

Three New Centers of Energy Excellence have been designated. The program signed into law this summer, is designed to bring companies, academic institutions and the state together to support cutting-edge research and development and pioneer new alternative energy technology. The new centers are 1) A123Systems will receive \$10 million to establish a center focused on the manufacture of rechargeable lithium batteries, 2) Working Bugs will receive \$2 million to establish a biorefinery that will produce high-value specialty and fine biochemicals and biofuels from natural feedstocks, and 3) American Process will receive \$4 million to establish a pilot scale biorefinery at the Decorative Panels International hardwood plant in Alpena. [www.michiganadvantage.org/21CJF](http://www.michiganadvantage.org/21CJF) .

Santa Coloma de Gramenet, a gritty, working-class town outside Barcelona, has placed a sea of solar panels atop mausoleums at its cemetery, transforming a place of perpetual rest into one buzzing with renewable energy. Flat, open and sun-drenched land is so scarce in Santa Coloma that the graveyard was just about the only viable spot for the solar energy program. The power from the 462 panels is equivalent to the yearly use by 60 homes.

Lansing Board of Water and Light (BWL) has issued a request for proposal (RFP) for qualified bidders for the first year of the utility's electric Energy Optimization programs. The RFP is a vital part of the BWL's plans to provide clean, reliable power at affordable rates as well as meet the utility's state energy optimization goals under Public Act 295 (PA 295) recently passed by the State of Michigan legislature and approved by the governor. The RFP can be downloaded at [http://www.lbwl.com/bus\\_BidsProposals.asp](http://www.lbwl.com/bus_BidsProposals.asp)

Boyne Highlands Resort in Harbor Springs has earned Green Lodging Michigan Steward certification. The resort has a linen and towel reuse program and a comprehensive recycling program. The resort also uses Energy Star lighting and has recently conducted an energy audit to discover other ways to improve energy efficiency and cut utility costs. [www.boyne.com/BoyneHighlands/index.html](http://www.boyne.com/BoyneHighlands/index.html)

Mariah Power, manufacturer of the Windspire(R), was recognized in "Best of What's New" in the green tech category by Popular Science in its December issue. The Windspire is a 30-foot-tall, vertical-axis wind turbine designed for urban, suburban and rural locations and residential and commercial use. Each year, Popular Science reviews thousands of new products and innovations and chooses the top 100 winners across 11 categories for its annual "Best of What's New" issue. This award comes on the heels of the company's announcement of its first volume manufacturing facility in Manistee and the first multi-unit commercial installation of six Windspires at Devon Bank, the first "green bank" in the Chicago area. [www.mariahpower.com](http://www.mariahpower.com)

Kalamazoo, once known as "The Windmill City," will be going back to the future when work begins on a 150-foot wind turbine at Kalamazoo Valley Community College's Texas Township Campus. The 50 kW unit with its 25-foot blades should be installed between Christmas and New Year's Day and be ready to generate 15% of the energy needed to power the technical wing at KVCC in early 2009. KVCC's \$250,000 wind turbine could be the first of four. Designed, built and installed by Entegri Wind Systems, the wind turbine is being funded by one of the college's "Innovative Thinking" grants. KVCC's technical programs are infusing wind-power components into their curriculums. In the works is a one-year, 35-credit-hour certificate for wind-energy technicians.

Boston Innovation Prize and \$30,000 have been awarded to Norbert Muller, MSU Mechanical Engineering prof and John Barrie, Appropriate Technology Collaborative, for the design of a low-cost, energy-efficient method of cooling. The air conditioner uses water vapor as the refrigerant. Water vapor can be more efficient than traditional refrigerants, but engineering the compressor is difficult and expensive. Muller invented a way to make an economical compressor that is small and lightweight by designing a novel turbo.

DTE Energy was presented with a Green Power Beacon Award at the 2008 National Renewable Energy Marketing Conference in Denver. GreenCurrents provides DTE's 2.2 million electric customers the option of "greening up" their power with wind, biomass and other environmentally friendly sources. Since the program's inception in April 2007, more than 14,000 customers have signed up for GreenCurrents. "The Center for Resource Solutions is proud to recognize DTE Energy, whose continuous efforts are significantly advancing the market for renewable energy," said Arthur O'Donnell, executive director of the Center. <http://www.greencurrents.com/>

West Construction Services is renovating a building in Detroit to create 23 low-income apartments including eight units for homeless and/or adults with mental illness. The project includes geothermal heating and cooling, Energy Star building techniques, windows, and appliances, and an exercise room with stationary bikes wired to capture energy to power TV/radio/lamps. Grants from the Kresge Foundation and Green Communities made these features possible. Construction will begin in early December and be completed in October 2009.

Green Zoning is being proposed for downtown Ann Arbor. The proposed changes call for creating more density and a traditional urban environment in the city's core, downtown area. That basically means developers can build structures that are as much as 400% bigger than the lot size. Those numbers can go up if the developer meets certain criteria, such as making the building LEED certified or including affordable housing. For instance, a developer can build 650% bigger than the lot size if it's a platinum LEED building.

Unexpected Drop in U.S. electricity consumption has utility companies wondering whether this could reflect a permanent shift in consumption. Sales growth of 1% to 2% annually in the U.S. has been typical. American Electric Power, which owns utilities operating in 11 states, saw total electricity consumption drop 3.3% in the same period from the prior year. Among residential customers, the drop was 7.2%. DTE has also seen electric use drop during the past months and it may be as much as 2% by the end of the year.

Doubletree Hotel Bay City has earned Green Lodging Michigan Steward certification. The hotel has implemented a linen and towel reuse program and have installed low flow fixtures throughout the facility. Doubletree Hotel also has a comprehensive recycling program and is in the process of conducting an energy audit on the property to help discover ways to cut utility costs. <http://doubletree1.hilton.com/>

Michigan Public Service Commission has reorganized to respond to the new state energy legislation. An electric reliability division will have new sections responsible for energy optimization, the Renewable Portfolio Standard requirements, and integrated resource planning.

U.S. Green Building Council (USGBC) has approved a ballot initiative establishing LEED 2009, a new system for rating buildings and certifying them under the Leadership for Energy and Environmental Design (LEED) program. According to USGBC, LEED 2009 incorporates regional credits, which are extra points earned based on the priorities within the building's particular environmental zone, and the LEED standards have undergone a scientifically grounded re-weighting of points to reflect climate change and energy efficiency as urgent priorities.

Macomb Math, Science and Technology Center will be installing a Windspire wind turbine. These vertical-axis wind turbines will be manufactured in Manistee. The turbine is part of a larger proposal to create a "renewable energy institute" at the math and science magnet school.

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