

## ENERGY TIDBITS – February 2008

Governor Granholm's State of the State Address Tuesday night offered several proposals to boost the alternative energy industry in Michigan. She said the state's "winds, water, woods and workforce" can combine to make Michigan "the alternative energy capital of the Midwest." Granholm called for the state Legislature to pass a "renewable portfolio standard," mandating that 10% of Michigan's energy must come from renewable sources by 2015, and 25% by 2025. She also backed producing 25% of transportation fuel from renewable sources by 2025. Governor Granholm stated that "There is no way to overestimate the importance of setting state renewable energy use goals when it comes to creating jobs. Tonight, I'm announcing that our state's largest utilities are poised to make one of the world's largest investments in alternative energy and energy efficiency, creating upwards of 17,000 jobs in Michigan. As soon as this Legislature acts on a comprehensive energy package, Consumers Energy and DTE will begin to jointly invest up to \$6 billion in Michigan -- much of it to build wind turbines and wind farms to produce electricity and to help businesses and homeowners install energy saving technologies. \$6 billion. 17,000 jobs."

Renewable Portfolio Standard bill requiring 10% renewable energy sources by 2015 passed the House Energy and Technology Committee. "This isn't a finished product," said Rep. Jeff Mayes, D-Bay City, who helped craft the bipartisan compromise. "We consider this a work in progress."

Michigan Renewable Energy Exchange (MI-REX) is operated by the Energy Office to provide a means for owners of small solar and wind electric systems to sell Renewable Energy Certificates. The Energy Office has certified for calendar year 2007 both solar and wind MI-REX certificates. These certificates are available for purchase and are posted at [www.michigan.gov/eorenew](http://www.michigan.gov/eorenew).

Green Advantage Training Workshop will be held on April 17, 8-5, at the Motherhouse of the IHM Sisters in Monroe. Building contractors and subcontractors should attend to learn the latest green building practices. The certification exam will be held on April 24 at Henry Ford Community College. LEED Innovation Credit can be granted for Green Advantage Certified Contractors and Subcontractors. [www.greenadvantage.org](http://www.greenadvantage.org)

General Motors has announced an investment in a start-up company, Coskata, to commercialize the process of turning biomass, municipal trash, waste tires, wood chips, and other low-grade waste into ethanol - at a price under \$1 per gallon. The plan is to build facilities that could produce 100 million gallons a year each by 2010.

German Video on Combined Power Plant includes solar, wind, and biomass resources for a complete renewable electric grid. <http://www.youtube.com/watch?v=aNZgjEDPe24>

Kettunen Center, a conference and retreat facility owned and operated by the Michigan 4-H Foundation, has earned Green Lodging Michigan Partner certification. Kettunen Center is located in Tustin, just south of Cadillac. Kettunen Center has implemented several environmental initiatives at their facility such as installing Energy Star lighting, using low-flow faucets, showerheads and fixtures, and offering a comprehensive recycling program to staff and guests. Kettunen Center also attempts to reduce waste by asking vendors to reduce packaging, avoiding single use items, and purchasing items in bulk. "Kettunen Center has had a strong environmental ethic as one of its core values for many years. It's part of our mission," said John Grix, director of Kettunen Center. "It's not just a matter of an energy savings program. It's a policy shared with all staff on becoming aware of how we can decrease dependence on nonrenewable resources." [www.michigan.gov/greenlodging](http://www.michigan.gov/greenlodging)

Pierce Cedar Creek Institute's 6th Annual Renewable Energy Conference will be held on March 15. Home and business owners, college students, teachers, and anyone interested in renewable energy will benefit and enjoy the day. The keynote will feature Todd Parker from the Delta Institute who will talk about the Chicago Climate Exchange. Breakout sessions include An Economic Analysis of Renewable Energy Systems; Solar Hot Water; Building an Energy Efficient Home; and an Energy State of the State Address. [www.cedarcreekinstitute.org](http://www.cedarcreekinstitute.org)

Michigan Renewable Energy Program has begun working on an open source, online database of renewable energy information relevant to the Great Lakes. Check out the Wind Energy in Michigan page: [http://www.greatlakeswiki.org/index.php/Wind\\_Energy\\_in\\_Michigan](http://www.greatlakeswiki.org/index.php/Wind_Energy_in_Michigan)

Harry Giles, a UM architecture professor, is developing a new, environmentally sustainable window system. It's dubbed SITumbra, for Structural Integrated Transparent and the Greek word for "shadow." It replaces glass and metal window with clear pastic, held together by biocomposite materials arranged in small boxes. The boxes are designed so they block out summertime's high-angle midday sunlight, helping buildings stay cool, but allow the lower-angle wintertime sun in, offering a bonus of free passive solar heat. Various materials are being eyed to produce the boxes, from kanaf grass to bamboo to keria board made from sorghum to wheat straw. A clear thermoplastic is the window, and Giles said his group is looking at various ways small amounts of silica can be sprayed on plastic as a coating so it won't scratch easily.

ASHRAE Seminars on Sustainability: SOS for the Environment will be held on March 11 at Lawrence Technological University in Southfield. The conference provides continuing education on sustainability and promotes sustainable design practices among building design professionals, building owners, facilities managers and construction professionals. [www.detroitashrae.org](http://www.detroitashrae.org)

University of Michigan & Pacific Northwest National Laboratory researchers will receive \$2 million from DOE to explore the future of plug-in hybrid electric vehicles. UM's Michigan Memorial Phoenix Energy Institute will coordinate efforts among several university departments, industry partners such as General Motors Corp., Ford Motor Co. and DTE Energy, and PNNL.

American Electric Power will deploy several large-scale sodium sulfur batteries on its distribution grid to boost reliability in the short term and integrate wind-generated energy in the long term. The company has ordered 3 of the batteries, each rated at 2 MW, from NGK Insulators of Japan. AEP will use the batteries at specific substations to delay the need for an upgrade. When the upgrade does take place, AEP will be able to move the batteries to another location. Another consideration for using these batteries is to store energy generated by alternative power generation technologies such as wind and solar. The total 6 MW capacity of these batteries is just the start. The company hopes to add another 1,000 MW of advanced storage technology in the next 10 years.

General Motors says it may produce a plug-in hybrid version of the Saturn Vue Green Line crossover vehicle as early as 2010. This could make it the first mainstream plug-in hybrid model on the market. GM showed a concept of the vehicle at the North American International Auto Show in Detroit. The production model would use a modified version of GM's two-mode hybrid drivetrain with a lithium-ion battery replacing the current nickel-metal-hydride pack, two permanent magnet motors and a 3.6-liter V-6 variable valve gasoline direct injection engine.

DTE Energy has signed an agreement with Wolverine Power Supply Cooperative to provide Renewable Energy Credits for the company's GreenCurrents program. Under a one-year agreement -- with option for two additional years -- Wolverine will provide DTE Energy with renewable energy credits from the Harvest Wind Farm located in Michigan's Thumb. In addition to its contract with DTE Energy, Wolverine also will provide renewable energy from the Harvest Wind Farm to its member companies. The Harvest Wind Farm, developed by John Deere Wind Energy, is Michigan's first multi-megawatt wind farm. The project consists of 32 wind turbines capable of producing enough electricity to power more than 15,000 homes. Since GreenCurrents was introduced in April, 2007, DTE Energy has signed long-term agreements with the following Michigan-based firms to provide renewable power supply for the program: Heritage Sustainable Energy, which is constructing a 6,500-acre wind farm in Richland Township near Cadillac; North American Biofuels-Green Meadow Farms in Elsie near Lansing, which is building an "anaerobic digester" that turns cow manure into usable electricity; and White Lake Landfill Generating Station, located in Whitehall near Muskegon, which will produce energy from the decomposition of municipal solid waste. [www.greencurrents.com](http://www.greencurrents.com).

Renewable Energy Workshop will be held on March 6, 8:45-4:00 by Michigan School Business Officials at Lansing Community College West. The workshop will educate school districts on how to become more energy efficient, while also exploring renewable energy options. [www.msbo.org](http://www.msbo.org)

Consumers Energy has submitted to the MPSC for approval a Balanced Energy Initiative which includes an energy efficiency program, demand management programs that would let customers volunteer to help lower power peaks by allowing limited interruptions to their air conditioning and continuing existing interruptible service programs, adding about 500 MW of gas-fired combined cycle capacity by 2011, and constructing a new 800 MW coal power plant at its Karn/Weadock Generating Complex in Hampton Township.

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