

ENERGY TIDBITS

May 2005

Gov. Jennifer Granholm has signed an executive directive designed to cut energy use in all state-owned buildings 10% by the end of 2008 and grid-based energy purchases by 20% by 2015. The Governor wants energy conservation improvements in how the state heats, lights, ventilates and cools its buildings. The Dept. of Management and Budget, Dept. of Environmental Quality and the State Energy Office have already conducted 38 energy audits in state-owned facilities and found \$4 million in potential energy savings. Also under E.D. 2005-4, the state fleet will be encouraged to use bio-fuels, departments will use "green" goods and supplies and any new building for state agencies, universities, and community colleges will be LEED (Leadership in Energy and Environmental Design) certified. The Governor's executive directive also creates an annual Governor's Energy Efficiency Award program to recognize energy efficiency efforts by state agencies.

House Republicans have announced a four-bill package to encourage the use of renewable energy in Michigan. Reps. John Moolenaar (R-Midland), Roger Kahn (R-Saginaw) and Howard Walker (R-Traverse City) introduced the measures to encourage electric service providers to use more renewable energy like wind by tempting them with tax incentives. HB 4647, sponsored by Moolenaar, provides a Single Business Tax credit equal to 1.5 cents/kWh for a business that owns and uses a wind energy system. HB 4608, sponsored by Kahn, requires electric service providers to increase the percentage of energy they produce to come from a renewable resource such as wind, solar or biomass. Providers must produce at least 4% of all energy from renewable resources during 2005-07; 5% by 2007-09; 6% during 2010-12 and no less than 7% of all energy by 2013. Walker is introducing HB 4648 and HB 4649, which would allow the use of wind energy systems if they meet property setback requirements and the sound created by the system does not exceed 60 decibels.

Michigan's 10th Annual Sustainable Business Conference & Expo will be held on May 11 and 12 in Grand Rapids. Join business leaders, environmental advocates, educators, students and government and community leaders to forge a sustainable future. Contact: <http://www.wmsbf.org/conference.html>

Green Building Guidelines workshops will be held on May 25 in Traverse City, May 26 in Detroit, and May 27 in Lansing. The workshops will cover the concepts of sustainable, green home design. Contact: http://www.sbicouncil.org/workshops_gbg.htm

Energy Star Home Promotional Grants will be available to public or non-profit organizations to promote Energy Star rated homes in three Michigan regions. It is expected that three \$50,000 grants will be awarded. The grant period will run from January 1-December 31, 2006. The deadline for proposals is August 5, 2005. For a copy of the Request for Proposal, email Patrick Hudson at plhudso@michigan.gov.

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Michigan Greenhouse Gas Inventory has been completed by the Center for Sustainable Systems at the U of Michigan. A copy is available at http://css.snre.umich.edu/css_doc/CSS05-07.pdf

Energy Matters is a quarterly newsletter from DOE's Industrial Technologies Program that promotes energy efficiency. www.nrel.gov/docs/fy05osti/36784.pdf

Kresge Foundation has renovated its headquarters in Troy. The three-acre farm and stone farmhouse has added a 17,000 ft² wing with green roofs, storm water management and geothermal heat pump system.

Plug Loads is available on our website at www.michigan.gov/energyoffice under Publications. Also check out our Calendar of Events.

Eco-Innovation 21: The Local/Global Imperative will be held in Grand Rapids on June 20-22. This year Michigan is the host state for the Multi-State Working Group (MSWG) Annual Workshop. MSWG is an international organization that convenes government, non-government, business, and academic interests to conduct research, promote dialogue, create networks, and establish partnerships that improve the state of the environment, economy, and community. Online registration is available at www.michigan.gov/deqworkshops, click on "Upcoming DEQ Workshops." For more information about MSWG, go to www.mswg.org.

Drake Landing Solar Community, south of Calgary, will obtain 90% of its space heating requirements from solar collectors. The complex of 52 homes will be the first in North America to use seasonal storage. 800 solar collectors (2,300 m²) will be mounted on roofs of interconnected garages and breezeways. In summer, solar energy will be stored under the neighbourhood park in a borehole field that consists of 144 holes, each 37 m deep. As heated water from the solar collectors travels through the pipework, the heat is transferred to the surrounding earth where the temperature will reach 80°C by the end of summer. In winter, heat will be extracted from the field and delivered to homes as hot water through underground, insulated pipes. On sunny days, the solar energy will be sent directly from the collectors to the homes. The solar storage and district heating loop will be supplemented by a conventional but independent two-panel solar thermal system on each roof, that will meet 60% of the domestic demand for hot water.

Starbucks Corp. will replace 5% of the energy used by its domestic company-operated stores with wind energy by buying green tags.

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City of New York is testing a solar-powered trash can that can sense when it is full and automatically compact the garbage inside. The 'BigBelly' can wirelessly call for a pickup, and is being developed by Seahorse Power to reduce the number of pickups needed, thereby reducing the diesel fuel used by garbage trucks.

International Energy Project of the Year Award from the Association of Energy Engineers has been given to the WindStorSM Wind Turbine Project implemented at the University of Quebec. Technology verification testing began immediately after installation and commissioning of the WindStorSM wind turbine on October 29, 2004 at the Université du Québec en Abitibi-Témiscamingue in Rouyn-Noranda. Since then, the WindStorSM wind turbine has successfully performed as designed at all rotational speeds, including its 54 RPM maximum, demonstrated that audible noise at the base of the turbine tower is nearly absent at all rotational speeds, demonstrated that turbine construction, control systems and sensor effectiveness have the ability to smoothly navigate resonance frequencies without affecting power production and safety, and operated through all weather conditions, including snow and ice, and in temperatures as low as minus forty degrees (-40C/F).

Renewable Energy Markets look promising according to Clean Edge research. Markets for solar PV will grow from \$7.2 billion in 2004 to \$39.2 billion by 2014. New wind power installations are projected to expand from \$8 billion in 2004 to \$48.1 billion in 2014. And fuel cells and distributed hydrogen are projected to grow from \$900 million to \$15.1 billion over the next decade. <http://www.cleandedge.com/reports-trends2005.php>



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