Rebuild Michigan

January 2009

Partner News

Rebuild Michigan is designed to foster partnerships, which will promote increased energy efficiency and renewable energy use within communities. The program focuses on community-based energy planning to insure that local needs are met and that a sustained local effort is established.

Community partnerships develop comprehensive energy use strategies and organize a coalition to work towards fulfilling community energy goals.

The partnerships identify energy efficiency opportunities in commercial, institutional and multi-family buildings and encourage installation of improvements that will yield the highest energy and cost savings.

Michigan Department of Energy, Labor & Economic Growth: Bureau of Energy Systems

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Website: www.michigan.gov/eorebuild

▶ Community Partnership Update ◀

Clean Energy Coalition launched the Rebuild Ypsilanti Program to assist local commercial building owners with energy efficiency. The program hopes to offset natural gas bills, projected to begin rising sharply this month, by encouraging energy efficiency investments in their facilities. The program will offer services such as free and reduced cost energy audits, technical guides, printed and electronic publications, financial strategies for energy projects, workshops & meetings, key program news, and grant writing assistance. Kick-off for the program began on January 9, 2009. For more information contact Greg Vendena at greg@cec-mi.org

Lake Superior State University along with the City of Sault Sainte Marie, Sault Chamber of Commerce, Sault Area Public Housing, Sault Area Schools and Edison Sault Electric, have formed a coalition to increase energy efficiency in the area. The Rebuild Sault Sainte Marie program kicked-off in late 2008 with a series of webcasts, press releases and meetings designed to garner further support and awareness. A public information session was held on January 21, 2009. For more information on the Rebuild Sault Sainte Marie program contact Gregory Zimmerman at gzimmerman@lssu.edu

Michigan GREEN is pursuing community support for the Rebuild Livingston County program. The program has already garnered support from Senator Valde Garcia, the Brighton Area Chamber of Commerce, Cleary University, Brighton Public Library, Hartland Schools and private contractors. The program is developing promotional materials that will be distributed throughout the county. If you're interested in joining the Rebuild Livingston County program, please contact Doug Russell of Michigan GREEN at drussell@michigangreen.org

WARM Training Center received a $15,000 grant to continue the Rebuild Detroit program. The program will provide energy audits and energy efficiency information to commercial and institutional building owners to focus their attention on planning and implementing energy efficiency projects in their buildings. The 2009 program will be tied in with the Detroit Greenzone project for sustainable planning in a 20-mile area of Detroit, which includes New Center, Midtown, Eastern Market, and Southwest Detroit. For more information contact Diane Van Buren Jones of the WARM Training Center at dvbjones@warmtraining.org

Quick Updates:

Upland Hills Ecological Awareness Center completed Introductory Energy Evaluations (IEEs) encompassing 48 buildings. The Awareness Center has applied for an RMCP Challenge Grant to continue energy efficiency activities in Oakland County. Contact: John Batdorf at john@uheac.org

Michigan Suburbs Alliance has completed 2 IEEs encompassing 11 buildings. They have also applied for an RMCP challenge grant to continue their energy efficiency efforts in Southeastern Michigan. Contact: Brittany Galisdorfer at Brittany@suburbsalliance.org

►REBUILD MICHIGAN PARTNER UPDATE◄

Since January 2008 the Rebuild Michigan Program has enrolled 63 new public agency partners. The table to the right lists the most recent program partners and the square footage that they have committed to energy improvements. The Rebuild MI team completed Introductory Energy Evaluations (IEEs) which identified areas where energy use can be reduced and recommended a more detailed technical energy analysis, if appropriate, for these clients .

To view the complete list of new clients please go to www.michigan.gov/eorebuild and click on Rebuild MI Energy Services.

Since January, 1998, 554 school districts, local governments, and public housing authorities have joined the Rebuild Michigan program. Enrolled partners have pledged more than 110,813,000 square feet to energy efficiency projects.

Public building owners that are seeking help in reducing their energy use through cost effective improvements may contact Tim Shireman at (517) 241-6281 or at shiremant@michigan.gov.

Public Agency	Enrolled Sq. Footage
Avondale School District	1,066,120
Lenawee Intermediate School District	228,246
Portland Public Schools	369,756
Sand Creek Community Schools	112,908
Delta Charter Township	185,799
Meridian Charter Township	123,808
City of Owosso	93,849
City of Springfield	32,287
City of Taylor	438,239

►FEATURED PUBLICATIONS◄

National Studies Show Green Building as Key Part of America's Economic Future

As the dire financial news continues to dominate year-end headlines, newly released studies and reports point to green building as one of the growing bright spots for the U.S. economy. In fact, as businesses strive to cut costs, green buildings' ability to deliver solutions to these pressing challenges promises to change the way we view the building industry.

http://www.usgbc.org/Docs/News/National%20Studies%20Show%20Green%20Building%20as%20Key%20Part%20of%20America%20%282%29.pdf

DOE Reaches 50% Milestone Towards Commercial Zero-Energy Buildings

The U.S. Department of Energy (DOE) and the National Renewable Energy Laboratory (NREL) have released the first technical support documents to show 50% energy savings in commercial retail buildings. The two reports provide recommendations on how to achieve 50% energy savings over the American Society of Heating, Refrigerating, and Air-Conditioning Engineer's (ASHRAE) Standard (90.1-2004).

http://apps1.eere.energy.gov/news/progress_alerts.cfm/pa_id=126

Groundbreaking contracting model removes barriers to energy efficiency investments

The Business Owners and Managers Association and The Clinton Climate Initiative, in collaboration with major real estate companies and energy service companies (ESCOs), identified the historical barriers to energy efficiency investment in the commercial real estate sector and developed a standardized, user-friendly contracting model that allows building owners and operators to successfully execute larger, more sophisticated retrofits and bring greater operational improvements

http://www.boma.org/AboutBOMA/pressroom/press010609.htm

►Sensory Management for Lighting Control◄

All lighting systems are operated with lighting controls; devices that can switch the lights on and off or that can dim the output. The most common is the simple On/Off switch; which cuts off the electrical current by flipping a switch. While the basic On/Off switch is economical in terms of initial cost, it can add up to a significant amount over time.

Most city skylines are dotted with glowing windows of unoccupied offices, those businesses are losing money every day due to operation costs from lighting systems—it's like paying a worker to sit and do nothing. On average an office spends 29% of its electricity on lighting. An effective solution to the problem is the installation of sensory management controls for lighting, or simply occupancy sensors. By installing occupancy sensors an office can reduce their energy consumption by half. Occupancy sensors come in an array of choices for different needs, but for lighting applications there are three main sensor types: passive infrared, ultrasonic, and hybrid.

Type of Space	U.S. EPA Prediction
Private Offices	13-50%
Classrooms	40-46%
Conference Rooms	22-65%
Restrooms	30-90%
Corridors	30-80%
Storage Areas	45-80%

Source: http://www.p2pays.org/ref/32/31316.pdf

The **Passive Infrared Sensor** measures the infrared radiation emitting from an object in its view. It detects motion when an infrared source passes in front of another infrared source with a varying temperature, the Passive Infrared sensors react to the change in heat patterns and the lights turn on. The advantages of passive infrared are that they are highly resistant to false triggering, relatively inexpensive, and do not radiate any energy. The disadvantages are that Passive Infrareds are strictly for line of sight use, and cannot see around objects, doors, stairways, or partitions.

Ultrasonic Sensors emit an audible sound pattern into the space, "reading" the reflection; when there is motion in the room a break in the sound pattern occurs and triggers the control. The advantages of Ultrasonic Sensors are that they can "see" around objects and therefore have 360 degree coverage of a room. The disadvantages are that they are more expensive than Passive Infrared sensors and also more prone to false signals, such as from a curtain being moved by a draft. In addition, they may interfere with other ultrasonic sensors or hearing aids. Ultrasonic sensors are recommended for larger areas, open offices, conference rooms, restrooms, and unusually shaped areas.

The **Hybrid Sensor** combines the technology from both the passive infrared and ultrasonic sensors. The technology allows the user to control one lamp or fixture, or many fixtures at a time. The advantages of hybrid sensors are that they are usually foolproof, allowing for a wide range of coverage and applications. The disadvantages are that they are more expensive, and may require more adjustments. Because hybrid sensors use both technologies, they can control lighting in almost any space, however large open areas and areas with irregular occupancy patterns are generally the most cost effective. Occupancy sensors range in cost from around $30-$130 and have a relatively low payback period of about 0.5-5 years depending on the unit and potential for energy savings.

For more information about occupancy sensors go to:
http://www.eere.energy.gov/buildings/info/components/lighting/lightingcontrols/occupancysensors.html
http://www.lightsearch.com/resources/lightguides/audits.html
http://www.michigan.gov/documents/dleg/EO_12-07_218809_7.pdf

►Energy Efficiency vs. Energy Conservation◄

Many people confuse the terms "energy efficiency" and "energy conservation," understanding that they are one and the same; however, they are in fact different. Energy efficiency means getting a job done with less energy; this could be through better lighting technology or energy efficient appliances. On the other hand, energy conservation means reducing the level of services, e.g. reducing lighting levels or turning up the temperature of your refrigerator. Reducing service levels (conservation) can sometimes be done very easily; for example, many spaces are over-lit by current-day standards and water heater temperatures are sometimes set too high; try turning off an overhead light and substituting a CLF in a lamp instead, or turning down the temperature on your hot-water heater.

For more information on energy efficiency, energy conservation, and energy efficient appliances go to: http://www.energystar.gov/.

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►ENERGY EVENTS◄

New Michigan Energy Code Made Easy

February 3, 2009
12:30 PM—2:00 PM

Kalamazoo, MI
http://www.kalamazoohomepage.com/calendar-of-events/task,view_detail/agid,142/year,2009/month,02/day,03/

Michigan Economic Developers Association Capitol Day

February 17, 2009
8:30 AM—2:45 PM

Lansing, MI
http://www.medaweb.org/354406.ihtml

Michigan Wind Energy Conference

March 3-4, 2009
Cobo Hall

Detroit, MI
http://www.glrea.org/events/WindConference2009/index.php

5th Annual Seminars on Sustainability Conference for the Environment

March 10, 2009
Lawrence Technological University

Southfield, MI
http://www.detroitashrae.org

Michigan Agri-Energy Conference

March 30-31, 2009
Kalamazoo Radisson

Kalamazoo, State
http://www.agenergy.org/

Advertise your future energy efficient events with the Rebuild Michigan Partner Newsletter!

*If your school district, community, or local facilities are hosting an energy event and you would like to advertise your event, email your requests to Stephanie Epps at eppss@michigan.gov and see your area's event in the next Rebuild MI Partner News.

If you would no longer like to receive the newsletter electronically please email Stephanie Epps at eppss@michigan.gov