

January 2008

**Climate Change, Green Building and Sustainable Communities:
A brief reflection on 2007**

Sherrie Gruder

2007 was the year when green became part of the mainstream media and rapid climate change was widely acknowledged in the US. *Newsweek* ran a cover "The New Greening of America." *Sports Illustrated's* cover read "Sports and Global Warming: As the Planet Changes, So do the Games We Play, Time to Pay Attention". The peak oil message was not missed as people and businesses felt the \$3.00+ per gallon gas prices and \$92+ per barrel oil prices. Biggest of all recognitions was the award of the Nobel Peace Prize to Al Gore and the International Panel on Climate Change. Their work shows that human activities increasing global warming are an urgent threat to the environment and to the economic health of our communities.

While the federal government took no action on rapid climate change at the international Bali summit, more than 20 states and 753 cities have taken the leadership role (<http://www.usmayors.org/climateprotection/>). At the end of December, the federal Energy Independence and Security Act (<http://thomas.loc.gov/home/c110query.html>) became law. It mandates programs for improving energy efficiency, increasing fuel efficiency standards and moving toward a clean energy economy with green collar jobs.

Green building programs proliferated and, by the end of 2007, they were adopted by the federal government, 26 states and 115 municipalities. Green buildings certified to the Leadership in Energy & Environmental Design (LEED) Green Building Rating System were shown to reduce energy use from 25-50% and carbon emissions by an average of 38%. Nationally, 2007 saw 1.5 billion square feet and \$12 billion in real estate in the LEED green building rating system.

Green buildings are a core strategy for energy efficiency. And, energy efficiency pays for renewables. Another trend was to build net zero energy buildings. Projects got underway to meet the new "Living Building Challenge"-- buildings that are both zero net energy and water, and green (www.cascadiagbc.org/lbc). The 2030 Challenge, with the goal that all new buildings be carbon neutral by 2030 (using no fossil fuel GHG emitting energy to operate www.architecture2030.org), was adopted by the American Institute of Architects as well as by the federal government in the Energy Independence and Security Act.

In Wisconsin, 16 communities passed resolutions to become eco-municipalities or sustainable communities with at least half a dozen more working on it. The sixteen include Washburn, Ashland, Madison, Douglas County, Johnson Creek, Bayfield- town and city, Marshfield, LaCrosse- city and county, Neenah, Manitowoc, Baraboo, Menasha, Beloit, and Town of Cottage Grove. *Toward a Sustainable Community: A Toolkit for Local Government*, a UW-Extension publication was created to help them (www.shwec.uwm.edu/sustk)

We have 138 LEED certified and registered green buildings underway in our state. Wisconsin LEED certifications in 2007 included a range of building types: from a LEED Gold high school in Eagle River; to a LEED Gold manufacturing facility, Kettle Foods in Beloit; to the LEED silver branch banks-- UW Credit Union and Home Savings, in Madison; to the LEED for Existing Buildings silver certified Monona Terrace Convention Center, and to the highest ranking LEED platinum project in the country that is zero net energy - The Aldo Leopold Foundation in Baraboo.

Wisconsin had almost 250 new renewable energy projects installed in 2007 through Focus on Energy, contributing almost two MW of electrical capacity, almost 11 million kWh and over a million therms per year. Madison was awarded a grant by US Department of Energy to become one of thirteen US Solar Cities. And, Focus on Energy, leading Wisconsin's transformation to energy efficiency and renewable energy, became fully funded.

In November at a meeting of the Midwest Governors Association, Governor Jim Doyle signed the Midwest Energy Security and Climate Change Pact, a commitment to cut global warming pollution by 25% by 2025. Throughout the year, the Governor's Task Force on Global Warming met and held public hearings as the basis of a report. (<http://dnr.wi.gov/environmentprotect/gtfgw/>) A key question that has been raised concerns whether any of these goals can be met without a moratorium on the construction of any new coal fired power plant that does not trap and store carbon dioxide? Perhaps that will be tackled in 2008.

In the coming years, carbon and climate change could influence many aspects of the economy, according to some estimates. The message from Apollo Alliance in 2007 was that we have the opportunity to create millions of new "green collar" jobs in this country and to prepare low-income workers for emerging opportunities in the clean energy economy (www.apolloalliance.org). A report by the American Solar Energy Society shows that as many as one out of four workers in the US will be working in the renewable energy or energy-efficiency industries by 2030. Overall, studies are showing 40 million jobs can be created in the clean energy, construction, manufacturing and green related sectors. Solely in renewables, a recent economic analysis predicts that Wisconsin would gain 4,240 new jobs, \$724 million in new capital investment, \$291 million in income to farmers and \$11 million in local tax revenues if it adopted a plan to generate 20 percent of its electricity from renewable fuels by 2020.

Energy savings to businesses and communities will be substantial. *"Waukesha ... is enact[ing] an energy efficiency program with Johnson Controls that will save \$2.3 million over the next 10 years."* — Mayor Larry Nelson, Waukesha. Kettle Foods anticipates \$200,000 annual savings in energy from their new LEED facility. The year 2007 charted a course toward a green and clean energy economy. Wisconsin governments and businesses have a substantial role to play in steering us toward that course and in reaping the benefits to our environment, community health and economic well-being.

Pharmaceutical Waste Pilot Programs Launched

Steve Brachman

Two new grants have been issued by the EPA, one to the St. Louis area and the other to the state of Maine to conduct pilot programs for the collection of pharmaceutical waste. Concern is growing about the impacts of endocrine disrupters on the environment, as well as about illegal use of prescription drugs. Communities are paying closer attention to the disposal of old medicines. Below is a brief description of these pilot programs:



The St. Louis project is slated to begin in January 2008. It is called RxMEDS, which stands for Regional Excess Medication Disposal. The pilot, which will serve a five county area with a population of 2.5 million, is focusing on educating seniors and kids regarding the issues related to old medicine disposal. Utilizing a local pharmacy network, pharmaceutical wastes, with the exception of controlled substances, will be accepted. In addition, a database is being developed to record the results.

Maine's program will be the first in the nation to pilot a mail back process. With funding from the state of Maine and the EPA, sufficient funds have been raised to launch a statewide program. Phase 1 of the program will assess citizen willingness and needs, while phase 2 is focused on education and marketing. After a two-month pilot, over 7,000 mailers will be sent to pharmacies statewide for redistribution to program participants beginning in February 2008.

Finally, the Wisconsin Pharmaceutical Waste working group has proposed a program similar to Maine. It plans to begin to pilot the process in two Lake Michigan counties beginning in April. Stay tuned for further updates on these and other pilot efforts to manage old medicines.

Metal Thefts Spur Wisconsin Legislation

Joe Van Rossum

Recyclers are not the only ones seeking benefit from the higher prices of scrap metals; thieves are also attempting to cash in on the trend. Metal theft is a growing problem as copper wire, construction materials and other metal goods are stolen and then sold to scrap yards.

Assembly Bill 560, introduced in the Wisconsin Legislature, requires scrap dealers to document purchases of scrap metals. This documentation may enable law enforcement officials to track down thieves of stolen materials identified at scrap yards.

Proposed legislation requires scrap metal dealers to record sellers' identifying information, delivery-vehicle license numbers, and descriptions of the scrap metals. Additionally, scrap yards would be required to obtain photographic or video images of sellers' vehicles and license plates along with statements signed by the sellers that they own the metals sold.

A public hearing was held December 18 on AB 560. Additional legislation on this issue includes Senate Bill 225 (Public hearing held 10/24/2007) and Assembly Bill 429. Information on the proposals can be found online at: http://www.legis.state.wi.us/intro_list.htm

On a related note, there are accounts from the San Francisco area of newspaper thefts. Publishers are reporting that "poachers" are stealing thousands of dollars worth of newspapers and then selling them to local paper recyclers.

Master Composter Training Sites Set for 2008

Joe Van Rossum

Three Wisconsin counties are hosts for the 2008 Master Composter Program initial training workshops. The Master Composter Program is a train-the-trainer course that builds the capacity of composters to share their knowledge and enthusiasm for composting with others. In order to become a certified Master Composter, a trainee must attend the one-day workshop; participate in a Wisline program, and complete three outreach activities.



Composters who participate in the program gain an understanding of the composting process as well as common uses for compost. The program also introduces vermicomposting and techniques to reduce the amount of waste generated. Most importantly, Master Composter trainees learn strategies to share their knowledge and interest in composting with others.

One-day Saturday workshops are in the following communities:

- Marathon County, March 15
- Oneida County, April 12
- Douglas County, April 26

For additional information about the scheduled workshops or the Master Composter Program, please contact Joe Van Rossum, SHWEC Recycling Specialist: vanrossum@epd.engr.wisc.edu, or 608-262-0936.

New Tools for Greening Local Government: Playbook for Green Buildings & Neighborhoods

The Playbook for Green Buildings & Neighborhoods is a web-based resource that provides local governments with tools and resources to rapidly advance green buildings, neighborhoods and infrastructure. Strategic action in these sectors promotes economic development, builds healthier communities, strengthens energy independence, and supports climate protection.

The Playbook was developed by a consortium of more than 20 local governments, non-profit organizations, government agencies, and utilities to help promote the goals of the U.S. Conference of Mayors Climate Protection Agreement. For more information and to access the Playbook visit: www.greenplaybook.org

168,000 Utility Customers to Benefit from State's Energy Efficiency and Renewable Energy Program

- Wisconsin Public Power Inc. Joins Focus on Energy -

Approximately 168,000 electric utility customers who are served by members of Wisconsin Public Power Inc. (WPPI) will benefit from the state's energy efficiency and renewable energy program. WPPI has joined Focus on Energy, a statewide initiative to help utility customers reduce their energy use and install cost effective energy efficiency and renewable energy projects.

"We welcome WPPI's 41 Wisconsin utilities into Focus on Energy and encourage all 168,000 customers to take full advantage of the benefits available through the program," said Dan Ebert, Chairperson of the Public Service Commission of Wisconsin (PSC), the agency that manages Focus on Energy. "By following Focus on Energy's lead, Wisconsin utility customers can help create a healthier environment, protect our natural resources and help reduce emissions that contribute to global warming - all while lowering their monthly utility bills. It is truly a win-win opportunity."

WPPI and its members have been aggressively pursuing energy efficiency and have joined Focus on Energy to take advantage of the experience and expertise accessible through the program. As a result, WPPI's Wisconsin customers will be able to participate in the different programs under Focus on Energy. These include, but are not limited to:

- Business customers will be able to reduce operating costs, increase their bottom line and improve productivity and employee and customer comfort. To date, businesses that have worked with Focus have saved more than \$100 million in annual energy costs.
- Residential customers will be able to join the ranks of the 834,000 Wisconsin residents who have already worked with Focus to integrate energy efficiency into their remodeling projects and newly-built homes. They will also reap the benefits of increased availability of ENERGY STAR® qualified products. To date, Wisconsin residents have saved more than \$59 million in annual energy costs.
- Focus' Renewable Energy Program will help business and residential customers harness energy from sunlight and wind. Already more than 48 million kilowatt-hours (kWh) and 3 million therms have been produced as a result of the program. That's enough energy to power more than 8,000 homes per year.
- Focus will help eligible customers who have a limited income reduce their energy bills while increasing the comfort and safety of their homes. Since 2001, eligible participants of this program have saved more than \$620,000 on utility bills.

"WPPI's increased participation in the Focus on Energy Programs is one example of the increased commitment we are making to address rising energy costs and increasing concerns about the environment," said WPPI President and CEO Roy Thilly. "We know the smartest and most cost-effective action is to take aggressive steps to conserve. This arrangement will provide WPPI member utility customers in Wisconsin with access to a variety of important and effective conservation incentives, while at the same time allowing our members to supplement Focus on Energy programs at home, with their own Commitment to Community dollars."

Wisconsin DNR Updates "Pre-Demolition Environmental Checklist"

The Wisconsin Department of Natural Resources (DNR) recently revised a guidance document, "Pre-Demolition Environmental Checklist," to aid building owners in complying with regulations related to building demolition.

The publication lists common building materials that may pose environmental problems as well as references to the specific regulations which must be addressed for materials such as asbestos, lead mercury or PCBs.

The checklist can be found online at:

<http://dnr.wi.gov/org/aw/wm/publications/anewpub/WA651.pdf> or it can be found in the Waste and Materials Management Bureau's searchable publication and guidance database at:

[http://prodoasext.dnr.wi.gov/inter1/pk_wm_doc_public\\$.startup](http://prodoasext.dnr.wi.gov/inter1/pk_wm_doc_public$.startup).

EPA Announces CARE Grants Available for Communities

The EPA announced in December that approximately \$3 million will be available in 2008 to support community-based partnerships to reduce pollution at the local level through the Community Action for a Renewed Environment (CARE) program.



EPA anticipates awarding CARE cooperative agreements in two levels. Level I cooperative agreements range from \$75,000 to \$100,000 and will help establish community-based partnerships to develop local

environmental priorities. Level II awards, ranging from \$150,000 to \$300,000 each, will support communities which have established broad-based partnerships, have identified the priority toxic risks in the community, and are prepared to measure results, implement risk reduction activities, and become self-sustaining. Applications for the CARE grants are due March 17, 2008. Eligible applicants include county and local governments, tribes, non-profit organizations and universities. EPA will conduct three conference calls, Jan. 18, Feb. 11 and 27, for prospective applicants to ask questions about the application process. Additional information about the CARE program, go to <http://www.epa.gov/care/>.

Regulatory Updates and News

EPA Widens Window on Regulatory Process

EPA has added new features to the "Laws, Regulations, Guidance and Dockets" web site which now provides easily accessible ways to search and comment on EPA regulations and significant guidance documents, and to learn how environmental regulations are written. Searches for regulatory information can be conducted by environmental topics, such as water or air, or by business sectors, such as transportation or construction. The new site is accessible from EPA's homepage and can be found by choosing "Laws, Regulations, Guidance & Dockets" from the left-hand navigation bar. See the new site: <http://www.epa.gov/lawsregs/>

EPA Announces Regulatory Priorities

EPA recently released its Regulatory Plan, which describes 30 of the most significant regulations it plans to issue by October 2008. EPA also released its Semiannual Regulatory Agenda, which describes over 300 actions under development or review, as well as those completed or withdrawn since the spring 2007 agenda was published. EPA's Regulatory Plan is available in the Federal Register at:

<http://www.epa.gov/fedrgstr/EPA-GENERAL/2007/December/Day-10/g04839.htm>

and for more information about EPA's Regulatory Plan and Semiannual Regulatory Agendas at

<http://www.epa.gov/opei/orpm.html#agenda>

EPA Issues Rule to Reduce Mercury Releases from Steel Manufacturing

EPA issued new air emissions standards that will reduce mercury releases from steel manufacturers using electric arc furnaces by requiring them to buy motor vehicle scrap from providers that participate in the National Vehicle Mercury Switch Recovery Program, <http://www.epa.gov/mercury/switch.htm> The program encourages scrap companies to remove mercury-containing switches from scrap vehicles before the vehicles are flattened, shredded, and melted to make new steel. The standards will prevent the release of about five tons of mercury in to the air each year and reduce emissions of other toxic metals such as lead, manganese, nickel and chromium by about 52 tons per year and particulate emissions by about 865 tons per year. For more information visit:

http://www.epa.gov/ttn/oarpg/t3/fact_sheets/eaf_fs_121707.html

Rule Clarification for New Source Review Program

EPA has issued a final rule to clarify when industrial facilities making changes to equipment or processes may need to retain records documenting their emissions even if the changes do not trigger Clean Air Act New Source Review (NSR) permitting requirements. The rule clarifies when facilities must keep records and report emissions when a "reasonable possibility" test shows that projected emissions increases could equal or exceed 50 percent of the Clean Air Act's NSR significant levels for any pollutant. Visit

<http://www.epa.gov/nsr/actions.html> for more information.

Leading Corporations Cutting Greenhouse Gases

EPA recently recognized more than 150 businesses for working to reduce their greenhouse gas (GHG) emissions and advance the nation's climate change strategy at the agency's Climate Leaders conference in Boulder, Colo. Currently the largest corporate greenhouse gas goal-setting program in the United States, Climate Leaders has partners located in all 50 states representing ten percent of U.S. gross domestic product. GHG reductions pledged through Climate Leaders are estimated to prevent the emissions equivalent to more than eight million cars annually. For the complete list of Climate Leaders partners and goal visit: <http://www.epa.gov/climateleaders/partners>

Clean Fuels Program Working in Reducing Some Pollutants

EPA' announced that clean fuels programs have exceeded expectations in reducing ozone pollutants and air toxics. A new report based on data collected from 1995-2005 finds emission reductions often significantly greater than regulatory requirements. The data, which provide a view of recent gasoline property trends, are mainly from EPA's reformulated gasoline (RFG) and anti-dumping programs. Highlights of the report include:

- Gasoline sulfur decreases -- Average annual sulfur content in all gasoline dropped from about 300 parts per million (ppm) in 1997 to about 90 ppm in 2005.
- RFG nitrogen oxide (NOx) reductions exceed requirements -- RFG exceeded applicable NOx performance standards during both Phase I (1998-1999) and Phase II (2000 and beyond).
- RFG toxics reductions exceed requirements -- On average, Phase I RFG complied with Phase II standards, and toxic performance still improved with the transition to Phase II standards.
- Conventional gasoline NOx and toxics emissions decreased -- Between 1998 and 2005, the summer NOx emissions of conventional gasoline were reduced by 5.7 percent, while summer exhaust toxics were reduced by 4.7 percent.
- Ethanol use in RFG increased and MTBE use decreased -- In the summer of 1996, about 11 percent of the RFG sold contained ethanol while virtually all the remainder contained MTBE. By the summer of 2005, the ethanol share increased to about 53 percent, with corresponding decreases in MTBE.

The Fuel Trends Report is available at:

<http://www.epa.gov/otaq/regs/fuels/rfg/properf/rfgperf.htm>

And for more information about the various clean fuels programs discussed in the report go to:

<http://www.epa.gov/otaq/gasoline.htm>

EPA Seeks Early Input on Standards for Airborne Lead

EPA is seeking early comments on policy options the agency is considering as it reviews the National Ambient Air Quality Standards (NAAQS) for lead. EPA is seeking broad public input on the policy options under consideration as part of the lead NAAQS review and will accept comment on the ANPR for 30 days after publication in the Federal Register. EPA is required by a consent decree to issue a proposal regarding the lead standards by May 1, 2008, and to issue a final rule by Sept. 1, 2008. For more information about the lead NAAQS rulemaking: http://www.epa.gov/ttn/naaqs/standards/pb/s_pb_cr_fr.html

EPA Authorizes Critical Uses of Methyl Bromide for 2008

In accordance with the Clean Air Act and Montreal Protocol, EPA has issued final methyl bromide production and import critical use exemptions for 2008. The exemptions for continued production and import of methyl bromide will honor the U.S. commitment to obtain methyl bromide for American farmers, in a manner consistent with the Montreal Protocol, while protecting the ozone layer. Critical use exemptions are permitted under the Montreal Protocol for circumstances where there are no technically and economically feasible alternatives to methyl bromide. For more information on the final rule: <http://www.epa.gov/ozone/mbg>

Events, Training, Workshops and Tour Opportunities.....

January 16, 2008, **Lean Manufacturing Training and Certification Program** at Lakeshore Technical College, with orientation January 16 and sessions beginning January 30. Go to http://www.gotoltc.com/seminars/sem_lean_mfg.php for details and registration

February 9-12, 2008 **The US Composting Council's 16th Annual Conference and Tradeshow**, Oakland, California. Registration online at: <http://www.compostingcouncil.org/index.cfm>

February 27-29, 2008 the **2008 Winter Solid Waste And Recycling Conference** is sponsored by AROW, SWANA and WCSWMA in Oshkosh. To register call 608-339-9178 or download the brochure at: <http://www.arow-online.org/PDF/2008%20Conference%20Schedule-Flier.pdf>

March 10-12 2008, **FET Environment 08 Conference and Exhibition**. Wisconsin's largest conference for environmental professionals ongoing for 25 years, sponsored by FET in Milwaukee got to <http://www.fetinc.org/> for details and registration

March 12-14, 2008, **Wisconsin Renewable Energy Summit**, Midwest Airlines Center, Milwaukee. The summit, "Green Jobs Growing Wisconsin's Economy", will focus on the role that renewable energy, such as wind power, solar energy, geothermal, green buildings and bio-energy technologies will play in supporting Wisconsin's economic well being. Growth of renewable energy businesses will create new green collar jobs in Wisconsin. Those jobs include manufacturers, installers, consultants, engineers, and associated professions. Renewable energy in Wisconsin has the potential to produce 35,000 jobs in the next 10 years.

For more information go to www.renewableenergysummit.org