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UW-Madison Stages Carbon-Neutral Homecoming Game

Pat Walsh



In support of this year's environmental theme for its homecoming, "Wear Red, Think Green," The University of Wisconsin-Madison staged the Big Ten's first carbon-neutral football game.

With help from SHWEC staff and students, the carbon footprint for staging the football game was calculated. Impacts analyzed included travel for the University of Illinois football team and 83,000 spectators to Madison for the game, energy use during the game, transport of concessions to the stadium, and overnight accommodations in the Madison area for attendees. The total impact was estimated to be approximately 1,170 tons of carbon dioxide equivalent, with the majority coming from the impact of those driving to the game.

This impact was offset through the commitment to plant thousands of trees at the Arington Tree Farm near Cambridge, WI and through the purchase of carbon credits on the Chicago Climate Exchange. This carbon neutral concept was promoted at the Homecoming Game. Student volunteers provided recycling and energy saving ideas to attendees throughout the game, as a way to bring the message of responsibility to protect the environment to a personal level for everyone.

Prices for Recovered Material Dropping

Joe Van Rossum

Material Recycling Facilities (MRF) in Wisconsin are also impacted by the economic slowdown over the past couple of months. The third quarter of this year became a roller-coaster for the sellers of recovered materials. Prices for recovered products such as old newspapers (ONP), steel cans and HDPE approached or exceeded all time highs based upon market price data collected by SHWEC.

The high prices of the third quarter have been followed by dramatic price reductions as the fourth quarter began. As an example, one recycler reported that after receiving \$156 per ton for ONP in September, the price fell to \$70 as November began. The change in the price paid for aluminum (UBC) and steel cans has been just as dramatic. One recycler reported receiving \$2,110/ton for UBC and \$367/ton to steel cans in July; by October the prices for these two materials had fallen to \$1,480/ton and \$87/ton respectively.

A few MRF operators I spoke with recently have been just as, or more, concerned about the ability to ship materials as they are about the price they are receiving. As most facilities do not have large storage capacity, it is important for them to maintain a flow of materials out of the facility while collection vehicles continue to deliver unsorted materials. One recycler shared that the booking dates for shipments of UBC truckloads are booked solid for a couple of months out as production has slowed down.

Market price data collected from Wisconsin recyclers can be found in the Publication (link to: <http://www4.uwm.edu//shwec/publications/publications.cfm>) section of the SHWEC website using "price" as a keyword search.

Wood Waste to Energy – the St. Paul, MN Approach

Steve Brachman

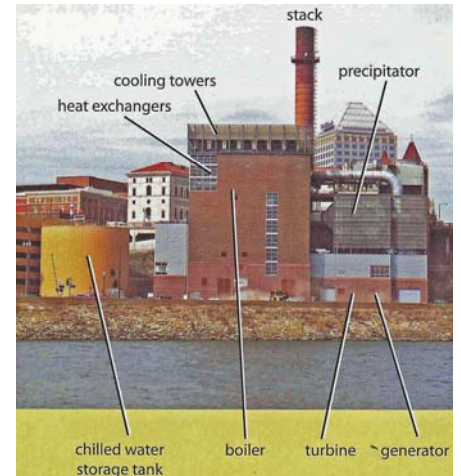
A wood waste to energy feasibility study for SE Wisconsin is currently being conducted by SHWEC and the Milwaukee School of Engineering. A recent visit to St. Paul Minnesota by key stakeholders revealed that Ever-Green Energy is a leading example for this approach.

District Energy St. Paul, an independent non-profit company, operates a 25Kw facility which currently provides hot water heating and cooling to downtown St. Paul while consuming up to 1,000 tons per day of urban wood wastes.

Utilizing a proven approach from Sweden, the combined heat and power approach has doubled the plant's efficiency, in addition to recycling an outmoded coal plant in downtown St. Paul.

Many important aspects have driven the success of this facility, including:

- Providing hot water heating and cooling service to more than 180 buildings and 300 townhomes in the downtown St. Paul area
- Being able to use natural gas, low sulfur coal or fuel oil if the wood supply is insufficient
- Creating a separate subsidiary (Environmental Wood Supply) to locate and purchase clean wood waste from suppliers throughout the metro areas and
- Locating downtown, enabling
 - Easy access to a steady supply of wood waste
 - Feeding the plant's electrical energy directly to the grid and
 - Direct pumping of hot and cold waste via underground pipes connected to buildings in the area.



The future looks particularly bright for this facility (or others that could be constructed in Wisconsin). By addressing climate change and renewable energy issues, District Energy can continue to expand its network for heating and cooling. Use of highly insulated hot water lines reduces maintenance and costs as compared to more traditional steam heating approaches. Finally, as communities in Wisconsin look towards energy independence, the District Energy model is one that is well worth exploring further.

Compost with Worms this Winter

Cathleen Condon

Does the prospect of trekking out to the compost pile on a winter day leave you cold? You can compost in the comfort of your home with red worms from the bait shop doing the work for you.



SHWEC offers a new fact sheet that gives step by step directions to create a worm bin that you can keep in the basement, the corner of the kitchen or anywhere that does not freeze and is not subject to temperature extremes. In less than one hour you can transform a plastic container into a vermicomposting bin. Over the winter the worms will eat your food waste and excrete nutrient-rich castings that combine with decomposed bedding (shredded newspaper) resulting in a prized soil amendment.

"Composting with Worms" can be found at

<http://www4.uwm.edu//shwec/publications/cabinet/recycling/Worm%20Bin%20August%20132.pdf> The fact sheet has links to additional vermicomposting resources as well as a list of suppliers.

DNR Resource for Finding Contaminated Properties on the Internet

The DNR's Remediation and Redevelopment (RR) Program has created a new resource for finding contaminated properties on the Internet!

The Contaminated Lands Environmental Action Network (CLEAN) is an inter-linked system of databases that provides information on different contaminated land activities in Wisconsin.

To access CLEAN, please click on the following link: <http://dnr.wi.gov/org/aw/rr/clean.htm>. You can also download and print our new brochure on CLEAN at the following link: <http://dnr.wi.gov/org/aw/rr/archives/pubs/RR788.pdf>.

By using CLEAN, you can find, download and print information about:

- cleanups that are still underway;
- cleanups that are completed;
- land use controls;
- financial assistance (e.g. DNR brownfield grants and loans);
- liability incentives (i.e. exemptions and clarifications for cleaning up contaminated properties); and
- other cleanup and redevelopment assistance.

Through CLEAN, there are two main ways to view information about contaminated properties:

- 1) *BRRTS on the Web* -- this on-line database provides information on more than 60,000 contaminated properties and activities all across Wisconsin. The information is updated daily and is connected to data from other DNR programs like the Waste and Materials Management Program.
- 2) *RR Sites Map* -- this web-based mapping system allows the user to view different layers of contamination data using a Geographic Information System (GIS) tool. Updated on a regular basis, the *RR Sites Map* connects to *BRRTS on the Web* at the click of a button.

The RR Program operates and maintains CLEAN -- the Program's goal is to help restore environmental and economic health in communities throughout Wisconsin.

For more information, or if you are having any trouble accessing information using CLEAN, please contact Andrew Savagian at 608-261-6422, or andrew.savagian@wisconsin.gov.

Environmental News Briefs of Interest

Kohler Company Named WaterSense Partner of the Year

Wisconsin's Kohler Company, leading bathroom and kitchen product manufacturer, was among four of the first WaterSense Partners of the Year named by the US EPA. The award recognizes Kohler for encouraging Americans to tap into their water resources wisely and for working together to education plumbers and consumers on the benefits of WaterSense labeled products.

Others receiving Partner of the Year distinction are: The Saving Water Partnership, a collaboration of Seattle Public Utilities and 17 local water utilities; Ferguson, a large wholesale distributor of plumbing supplies, and Timothy Malooly from Shorewood, Minnesota who is a WaterSense irrigation partner and president of two Minnesota-based irrigation firms.

WaterSense, a partnership program launched in 2006 by the US Environmental Protection Agency, seeks to protect the future of our nation's water supply by offering people a simple way to use less water.

New Guidelines Encourage Responsible Recycling of Electronics

Electronics recyclers have a new guide on how to run safe and environmentally protective recycling operations. EPA, as part of a group of recycling stakeholders, developed the "Responsible Recycling (R2) Practices for Use in Accredited Certification Programs for Electronics Recyclers" to promote better environmental, worker safety, and public health practices for electronics recyclers.

The R2 guide lists 13 principles to help electronics recyclers ensure their material is handled safely and legally in the U.S. and foreign countries.

The workgroup that developed the guidelines represent federal and state governments, electronics manufacturers and recyclers, and trade associations. The workgroup will now focus on establishing a certification process, which will allow consumers easily to recognize responsible recyclers in the marketplace.

Information about the guidelines:

<http://www.epa.gov/epawaste/conserves/materials/recycling/r2practices.htm>

Make a 2009 Green Chemistry Award Nomination

EPA is accepting nominations for the 2009 Presidential Green Chemistry Challenge Awards. These awards recognize innovative chemical technologies that incorporate green chemistry into chemical design, manufacture and use, and that have broad applications in industry.

Nominated technologies should reduce or eliminate the use or generation of hazardous substances from a chemical product or process. Any individual, group or organization, both nonprofit and for-profit, including academia and industry, may nominate a green chemistry technology for these awards. Self-nominations are welcome and expected.

Typically, awards are given each year in five categories: Greener Synthetic Pathways; Greener Reaction Conditions; Designing Greener Chemicals; Small Business; and Academic. Each nominated technology must have reached a significant milestone within the past five years in the United States. Nominations must be sent no later than Dec. 31 to be eligible for the 2009 awards, which will be presented on June 22, 2009.

For more information on applying for an award:

<http://www.epa.gov/greenchemistry/pubs/pgcc/howto.html>

Events, Training, Workshop and Tour Opportunities

November 19-21, 2008, **Green Build International Conference and Expo**, Boston. For information go to <http://www.greenbuildexpo.org/>

February 11-13, 2009, **Sanitary Landfill Design**, Pyle Center, Madison, WI. For information or to register call Phil O'Leary, 1-800-462-0876.

<http://epdweb.engr.wisc.edu/Courses/Course.lasso?myCourseChoice=K302>