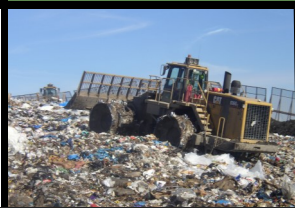


ecology action center news



Volume 13, Issue 4

Winter 2015

EAC offers Pre-Winter Energy Assessments for as low as \$10

By: Marcus Ricci, Assistant Director of Energy/Water

To help the public prepare for the chilly winter weather, the EAC is offering its home and small business energy audits at a reduced price, for a limited time, until January 15. Marcus Ricci, the Ecology Action Center's Assistant Director of Energy & Water Programs, is telling residents and small business owners: "Brace yourselves--winter is coming." To help people tighten up their homes and small businesses, the EAC is cutting their prices on Home and Small Business Energy Assessments in half: from \$20 for a home and \$40 for a small business to \$10 and \$20, respectively. "We will come to your home or small business, here in Bloomington-Normal, and inspect the visible portions of its structure, windows and doors; mechanical systems such as the furnace, central air conditioner and water heater; exterior and interior lighting; and plug loads including major appliances and audio-video and computer equipment. We will even go up into your attic and check insulation levels and look for leaks in the roof and walls." The current conditions, benchmarking information from the optional utility bill analysis, and Ricci's energy cost reduction measures are presented to the client in an energy assessment report.



Normally, the cost of a home energy audit through BN Energy Bright is \$150, and for a small business is \$300. BN Energy Bright has partnered with the City of Bloomington and Town of Normal and with funding from the local electricity aggregation programs, is able to provide these services at this significantly reduced rate, for Bloomington-Normal residents. In addition to the utility bill analysis, the site audit and the assessment report, the EAC gives each client an energy kit – valued at \$20 – which includes an LED lamp, weatherproofing for one door or two windows, foam gaskets to seal electrical outlets, and information on additional ways to increase the energy conservation and efficiency of your home or small business.

The EAC is now offering a seasonal discount on home and small business energy audits in Bloomington-Normal. Hurry and register before the rush starts! Register for your reduced-price Home or Small Business Energy Assessment at BN Energy Bright, contact Ricci at mricci@ecologyactioncenter.org, or 309-454-3169, extension 15.

Don't Trash Your Holidays

Here are some reminders about what to do with unwanted holiday items...

GIFT BAGS: Save them to use again!

BROKEN HOLIDAY LIGHTS: recycle with electronics recycling – see our website (ecologyactioncenter.org) for locations. If you've gotten new electronics for the holidays and have old ones to dispose of, be sure those get recycled too.

LIVE CHRISTMAS TREES: before putting it out for waste collection, let your undecorated tree be a place of refuge for birds. Place it in a sheltered corner of your yard, and birds will use it as a spot to get out of the wind and weather. Most shrubs have no leaves this time of year, and the birds will appreciate your unwanted tree until springtime!

TURKEY CARCASS: Those turkey bones make fabulous soup. Throw the whole carcass into a giant plastic bag, put in it your freezer, and pull it out on a snowy weekend in February. Put the whole thing in a big pot with plenty of water, onions, celery and carrots. After an hour or so, strain it so you can remove the bones, and put the broth, vegetables and meat back in the pot. Add seasonings and pasta, and you have a delicious winter meal!

Green Top Grocery Update

At the EAC, we promote buying and eating locally. This helps our economy, our neighbors, and our planet. One group trying to make this possible is Green Top Grocery.

This grocery co-op is getting closer to becoming a reality. They announced their site at 921 E. Washington in Bloomington in May and have been working hard to secure the necessary funding so they can break ground.

The next step: continue recruiting owners to reach goal of 1,200 by the end of January, and launch the second phase of the owner loan campaign. Not a member yet? Now is the time to join!

For more information, visit greentopgrocery.com.

Geothermal 101

By: Marcus Ricci, Assistant Director of Energy/Water

Geothermal is a good heating and cooling option for many people. Technically known as a ground loop heat pump system and sometimes referred to as ground-source or water-source heat pump systems, geothermal systems have been in use since the late 1940s.¹ They use the constant temperature of the earth as the exchange medium instead of the outside air temperature, allowing the system to reach fairly high efficiencies (300% to 600%) on the coldest winter nights, compared to 175% to 250% for air-source heat pumps on cool days, electric furnaces' heating efficiency of 100% or a high-efficiency natural gas furnace's efficiency of 94-97%.

Depending on a home's latitude, ground temperatures range from 45°F-75°F (7°C-21°C). Geothermal takes advantage of this by exchanging heat with the earth through a ground heat exchanger. As with any heat pump, geothermal and water-source heat pumps are able to heat, cool, and, if so equipped, supply the house with hot water. Some models of geothermal systems are available with two-speed compressors and variable fans for more comfort and energy savings. Relative to air-source heat pumps, geothermal systems are quieter, last longer, need little maintenance, and do not depend on the temperature of the outside air. Even though the installation price of a geothermal system can be several times that of an air-source system of the same heating and cooling capacity, the additional costs are returned in energy savings in five to ten years. System life is estimated at 25 years for the inside components and 50+ years for the ground loop. There are approximately 50,000 geothermal heat pumps installed in the United States each year.

Water-to-water geothermal systems heat and cool water for hydronic radiant systems or for dedicated water heating in commercial buildings (for example, washing machines in a laundromat or hospital).² Water-to-air geothermal systems heat and cool air for forced-air ducting systems. In the United States, most homes use forced-air ducting distribution systems, so water-to-air units are the standard type used.

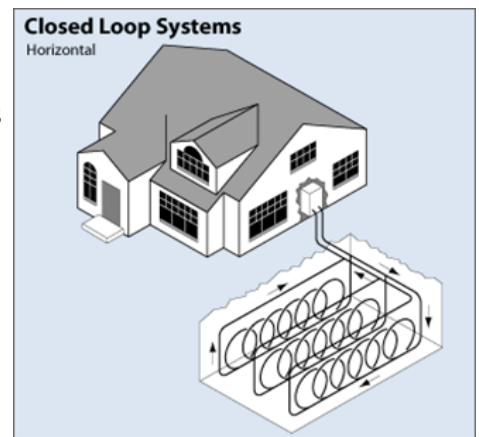


Figure 2. Geothermal system (image courtesy of US Dept. of Energy).

Footnotes

1. <http://energy.gov/energysaver/articles/geothermal-heat-pumps>
2. <http://www.geojerry.com/water-to-water-vs-water-to-air.html>

Fall 2015 Household Hazardous Waste Collection Results!



1,600

Cars passed through the event



2,256

Total participating households



27,366

Gallons of Household Hazardous Waste collected



20,500

Pounds of e-waste recycled



291

Hours of work put in by 97 volunteers assisting EAC staff



\$182,703

Total amount raised for the HHW Fund this year including local government funding and in-kind sponsorships



\$150,147

Total cost of the collection, not including staff time

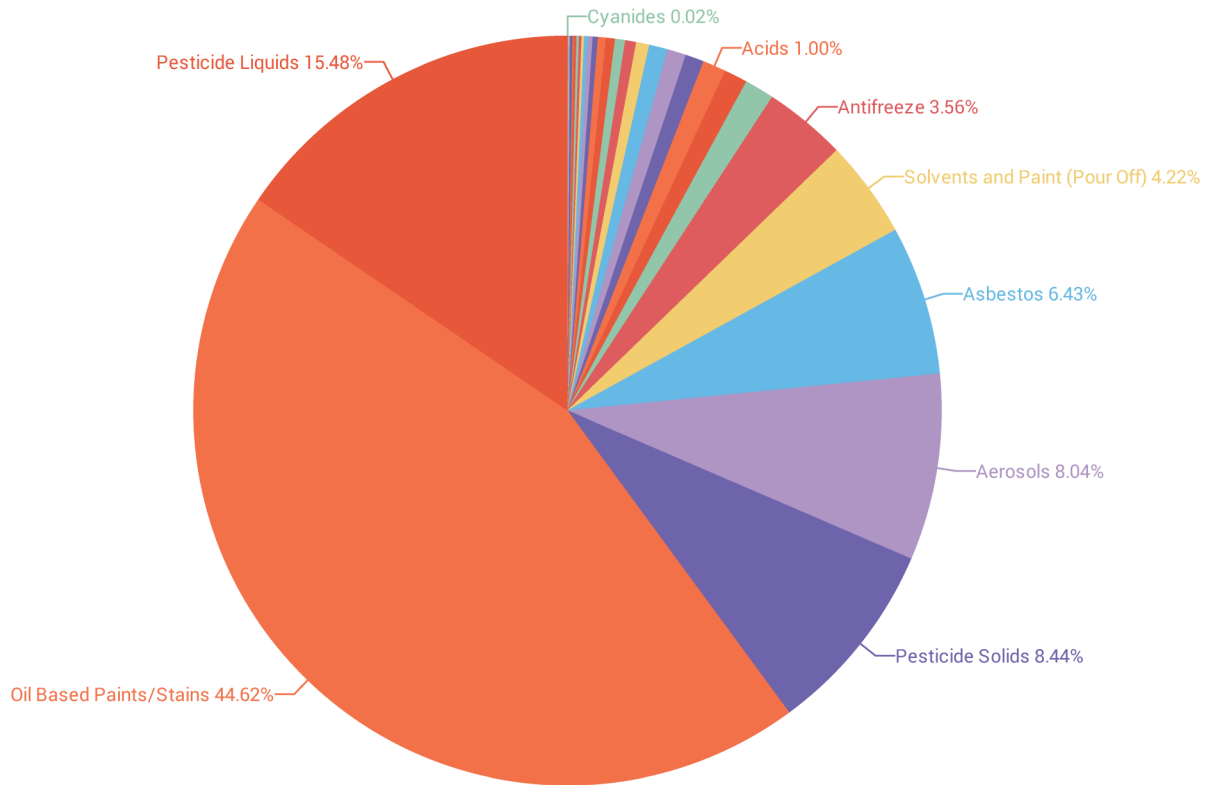


\$32,555

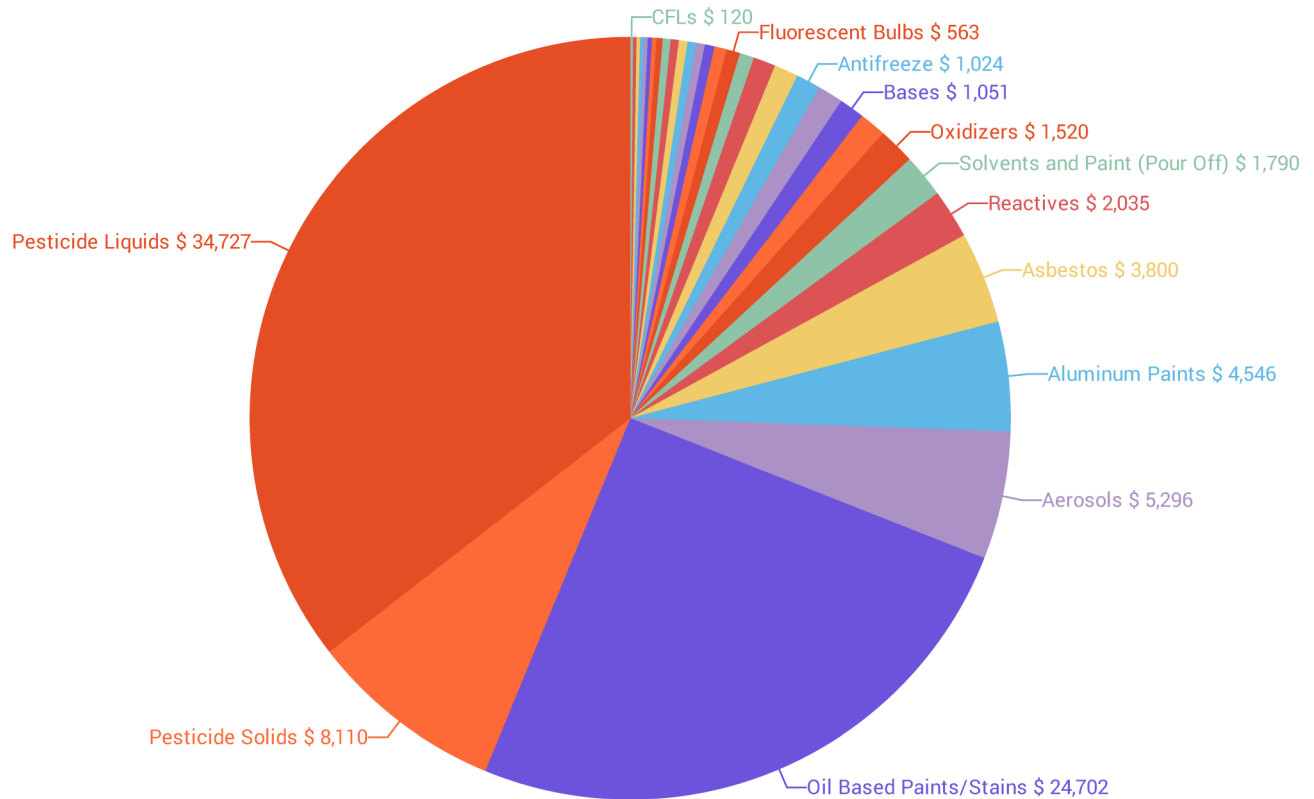
Amount already raised towards the 2017 HHW Collection Event!



Thank you to hundreds of volunteers, donors, and community partners for making the 2015 HHW event a huge success! And thank you also to the 1,600 drivers who waited patiently in line to safely and legally dispose of their materials. For the complete HHW event report, please visit ecologyactioncenter.org.



HHW materials collected by volume



Disposal costs of HHW materials collected

Simple Tips for a Green Holiday

By: Carl Roberts, EAC Volunteer

As we delight in the fun and festivities of the holidays, there are many ways to be green. Here are some simple tips for enjoying an ecologically friendly holiday season this year.

1. Save money and reduce energy costs by dressing warmly.

Frugally Green¹ suggests: "Try putting on some thick wool socks, pajama pants, or even a comfy beanie to combat the cold. Your body heat will stay trapped against your skin when you bundle up."

2. Request an Energy Bright Audit from the EAC.

Energy experts from the Ecology Action Center will inspect your home and suggest ways to save energy. This includes detecting window and door leaks, checking household appliances and identifying other energy wasters.²

3. Reduce your use of natural gas or propane.

The California Energy Commission³ suggests turning down your thermostat, replacing furnace filters monthly, setting your hot water heater to no higher than the "normal" setting or 120 degrees, and caulking air leaks around the windows and doors.

4. Switch to LED lights for household decorations.

"LED lights are rated to last tens of thousands of hours," says Christmas Lights etc. LEDs "are safer, they last longer, they produce more vivid color and use up to 90 percent less energy."⁴

5. Serve Eco-friendly food and drinks.

"Shop local and use fresh, seasonal ingredients whenever possible," suggests the Nature Conservancy.⁵ "Check into local businesses to find organic caterers and ask whether they can offer sustainably grown dishes." (Also, refer to the EAC website for information on the local Sustainable Gourmet event held every fall.⁶)

6. Give handmade gifts or "the gift of fun."

Several eco-friendly gifts are suggested by the Nature Conservancy.⁷ These range from locally produced items to handmade crafts. The Nature Conservancy also encourages you to "Give the Gift of Fun." This can be anything from cooking lessons to an invitation to a sporting event or seminar. Whatever you give, remember to reuse the wrapping paper and ribbons.

7. Energy Star gifts reduce energy costs and protect the environment.

"The typical homeowner can save more than 30 percent, or about \$700, on annual energy bills with Energy Star labeled products," says the U.S. Environmental Protection Agency. In addition to the well-known Energy Star appliances, you can buy Energy Star televisions, computers, rechargeable tools and other products.⁸

8. Whatever else you can think of.

The ideas listed above are merely a starting place. There are countless other ways to celebrate in an ecologically friendly manner – limited only by your imagination, suggestions from your friends, and tips you hear or read.

Have a Green Holiday!



Footnotes

1. <http://frugallygreen.org/make-your-home-energy-efficient-for-wintertime/>

2. <http://www.ecologyactioncenter.org/eac-offers-discounted-home-small-business-energy-assessments-to-b-n-residents/>

3. <http://www.consumerenergycenter.org/tips/winter.html>

4. <http://www.christmaslightsetc.com/pages/led-christmas-lights-guide.htm>

5. <http://blog.nature.org/green-gift-holidays/2012/12/hosting-the-perfect-green-holiday-bash/>

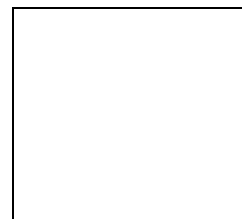
6. <http://www.ecologyactioncenter.org/events/sustainable-gourmet/>

7. <http://www.nature.org/ourinitiatives/regions/northamerica/unitedstates/mississippi/explore/green-gifts-mississippi.xml>

8. EPA: <http://goo.gl/6CEyHB>



Ecology Action Center
202 W. College Ave.
Normal, IL 61761
ecologyactioncenter.org
309-454-3169



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EAC Staff

Michael Brown
Executive Director

Kris Hall
Assistant Director of
Education

Marcus Ricci
Assistant Director of
Energy & Water Programs

Larissa Armstrong
Program Assistant

Gary Kamplain
Program Assistant

Ruth Ann Lipic
Radon Program
Coordinator

Sally Stoneking
Administrative Assistant

Glen Wetterow
Program Assistant

Seth Rients
Solid Waste Technician

Sara McCubbins
Expo Coordinator

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