Going Green at Home: Home Energy Efficiency

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What is Sustainability?
Why Is It Important?
CLIMATE SUMMIT

WHAT IF IT'S A BIG HOAX AND WE CREATE A BETTER WORLD FOR NOTHING?

- ENERGY INDEPENDENCE
- PRESERVE RAINFORESTS
- SUSTAINABILITY
- GREEN JOBS
- LIVABLE CITIES
- RENEWABLES
- CLEAN WATER, AIR
- HEALTHY CHILDREN
- ETC. ETC.
Getting Started
Take a Snapshot and Find Projects

- Look at data from your most recent six months of power bills to determine current energy use and cost
- Conduct a home energy audit
  - Locate air leaks (drafts)
    - Identify locations where you feel drafts
      - Windows, doors, electrical outlets, switch plates, baseboards, fireplaces, attic hatches, wall or window mounted AC units
    - If you’re having trouble locating leaks, conduct a basic building pressurization test
  - Check your insulation to determine if the level is at the recommended minimum (R-Value)
  - Inspect heating and cooling equipment annually
  - Evaluate your lighting
  - Use a home energy monitor to see how much energy your major appliances are using
    - Kill-A-Watt meters available for checkout at area public libraries
ENERGY STAR Home Energy Yardstick

WHAT’S YOUR SCORE?

Compare your household’s energy use to others across the country and get recommendations for improvement.

What you need to know to get started

- **Your energy use and costs for the last year:** You’ll need your last 12 months of utility bills OR a 12-month summary statement from your utility company.
- **Energy sources for your home:** natural gas, electricity, fuel oil, propane, coal, wood and/or kerosene?
- **The square footage of your home.**

<table>
<thead>
<tr>
<th>Your Home</th>
<th>Your Fuel Types</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is your 5-digit zip code?</td>
<td>In addition to electricity, which fuel type(s) does your home use? <strong>Select no more than 2</strong></td>
</tr>
<tr>
<td>How many people live in your home?</td>
<td>Natural Gas</td>
</tr>
<tr>
<td>What is the square footage of your home, including the basement?</td>
<td>Fuel Oil</td>
</tr>
<tr>
<td></td>
<td>Propane</td>
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<tr>
<td></td>
<td>Kerosene</td>
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<tr>
<td></td>
<td>Coal</td>
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<td></td>
<td>Wood</td>
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</tbody>
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**Your Energy Use**

Would you like to use **annual** or **monthly** billing information to enter your household’s energy use?  
- ☐ Annual  
- ☐ Monthly

Select the Start Date for the year covered: [Select Year] [Select Month]  

**Enter Totals for the year:**  
- Electricity [Max 70,000 kWh]  
- [ ] dollars
Change your lighting
Do you really think we'll save any money with those new **EFFICIENT** lightbulbs?

I *dunno*. Did we turn off the lights?
Program your thermostats
The ENERGY STAR Home Advisor can provide you with recommended home improvement projects to increase energy efficiency and comfort in the area where you live.

ASSESS YOUR HOME
Get Customized Recommendations

* An asterisk indicates required field

What is your ZIP code? *

How Do You Cool Your Home?
No Air Conditioner

How Do You Heat Your Home? *
Electric Baseboard/Wall Heater

What Type of Water Heater Do You Have? *
Electric water heater

Submit
Don't break the bank
Real-Time Pricing: The Barnes Family, Champaign IL

**House details:** Two-story 1,500 square foot house with basement, built in the 1920s. Windows and doors replaced in 2008.

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<thead>
<tr>
<th>One month (6/7/2011 to 7/7/2011)</th>
<th>Over 36 months</th>
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<tbody>
<tr>
<td>PSP bill: $117.00</td>
<td>Total savings: $708.90</td>
</tr>
<tr>
<td>Standard (BGS) bill: $127.84</td>
<td>Total percent savings: 19.12%</td>
</tr>
<tr>
<td>Savings: $10.84</td>
<td></td>
</tr>
<tr>
<td>Percent savings: 8.48%</td>
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Need more information?
National Recycling Competition Kicks Off

Read the full post at Earth911.

The first-ever nationwide recycling competition for elementary, middle school and high school students launches this month. Keep America Beautiful’s RecycleBoat competition starts Oct. 17, but schools can start registering now.

The idea is simple. Register as a school or a classroom, recycle as much as you can, and then report your results to KAB.

There are more details, like if you want to compete in the Competition or Open Division, or if you want to be on the Flexible Game Plan instead, but KAB does a good job of explaining it all here.

Your Room-By-Room Guide to Batteries

Read the full post at Earth911.

To help you maximize your recyclable battery recycling opportunities, we put together this room-by-room guide and highlighted some unexpected items.

Making back-to-school greener

Earth911 has several articles with good suggestions for making back-to-school a little more environmentally friendly. They are:

- 10 Back-to-School Items to Buy Used
- 5 De-Cluttering Craft Projects For Your Dorm
- 5 Ways to Pack a Zero Waste Lunch

Novel Alloy Could Produce Hydrogen Fuel from Sunlight

Read the news release.

Scientists from the University of Kentucky and the University of Louisville have determined that an inexpensive semiconductor material can be "hacked" to generate hydrogen from water using sunlight.

The research, funded by the U.S. Department of Energy, was led by Professors Madhu Menon and D. Michael Driscoll at the UK Center for Computational Sciences, and Professor Mahendra Sunkara and graduate student Chandrakshar Panditya at the UofL Conn Center for Renewable Energy Research. Their findings were published Aug. 1 in the Physical Review Journal (Phys Rev B), 075006.