Audit Your Home Energy Use
Filed under: Energy efficiency mortgages, Energy saving measures
10:21 am - May 3, 2007

You may already be taking steps to conserve energy in your home and getting the rebates and mortgages many cities and states are offering for energy-efficient renovations. But if you've been wondering where to start to save energy and money, The Green Guide recommends you conduct a simple home energy audit. "I think energy audits are one of the easiest ways to save the most money," says Alex Wilson, coauthor of Consumer Guide to Home Energy Savings (2003, American Council for an Energy Efficient Economy, $8.95).

Sponsored by the Department of Energy, as part of the national Energy Star Program for improving energy efficiency in homes, Home Energy Saver offers a do-it-yourself home energy audit that takes into account where you live.

You may prefer to have a professional conduct an audit of your home or office energy use. To find certified raters in your state, check out Certified Residential Energy Services Network. To qualify for a federal tax credit for energy efficiency, a certified rater should be used.

See "Cutting Costs in a Fuel-Scarce World" for more energy saving measures.

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In the Market for a Greener Printer?
Filed under: Energy efficiency, Printers, Office equipment
4:53 pm - April 9, 2007

Looking for a printer? Choose an inkjet, as it consumes 90 percent less energy than a laser printer. When possible, choose multi-function devices that print, fax, copy and scan, as they can use less energy than individual machines would.

If you are replacing a printer, be sure to recycle the old one. A number of companies take back old equipment. See "Bigger Isn't Better: Choosing TVs and Computers" to find out which.

If your old printer can't be returned to the vendor, take advantage of electronic recycling programs in your community. The Take Back program web site offers a searchable database to responsible electronics recyclers in your area.

For more information on the most energy efficient office equipment, see EnergyStar.gov.

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Are You Eligible for an Energy-Efficiency Tax Credit?
Filed under: CO2 emissions, Hybrid vehicle, Energy-efficiency upgrades, Tax credit
9:57 pm - April 2, 2007

Tax day is around the corner and if you are one of the many Americans who purchased a fuel-efficient hybrid-electric vehicle and/or made certain energy-efficiency upgrades to your home in 2006 you may be eligible for the federal tax credits signed into law in 2005. In some areas of the country, consumers also will be eligible for utility or state rebates or state tax incentives for the same homes, vehicles, and equipment.

The Alliance to Save Energy and the Department of Energy teamed up to provide information about the Tax Credits offered under the Energy Policy Act of 2005. It's worth checking out, even if you are not eligible this time, you can take actions this year that you can get a tax credit for next year.

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Energy Diet Step 7: Drive Less
Filed under: Automobiles (cars), Global warming and climate change, Carbon footprint, CO2 emissions
3:10 pm - March 25, 2007

The average car in the U.S. releases about 1 pound of CO2 for every mile driven. Avoiding 20 miles of driving per week would eliminate about 1,000 pounds of CO2 emissions per year.

Living in the city, I don’t drive our car much. I walk to do errands and walk part of the way to work, taking the subway the rest of the way. But my husband and I do visit our kids who are in college about 60 miles outside the city, conveniently located along a train route. Twice a year we help them move in or out of their dorm room (having a car on those visits is handy), but we probably visit them 3 to 4 more times in between when frankly we could just as easily take the train.

We’re planning one of those visits in a couple weeks and I pledge to take the train for it and for one other trip in the fall. That’s 240 miles for the two round trips. We avoid CO2 emissions. However, the train pollutes as well, but only 1/3 as much per passenger mile as does a car. So, I’ll knock a third off my total, which means I’m saving 180 pounds of CO2 by taking the train instead of the car on two visits to see the kids.

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Energy Diet Step 6: Maintain proper tire pressure
Filed under: Energy efficiency, Air Quality, Global warming, climate change and health, Green living
3:20 pm - February 27, 2007

Our family car is not a hybrid, electric or particularly fuel-efficient. Fortunately, since we live and work in the city, we don’t use it a lot. We take about two trips out of the city per month, averaging about 250 miles per trip.

Even though we don’t drive much, we’re still concerned about how much fuel we use and the pollution we are causing. It turns out how one drives and takes care of her car can affect its fuel economy and emissions levels. In fact, something as simple as keeping the tires properly inflated can improve gas mileage by around 3.3 percent by reducing the amount of drag the engine must overcome.

So I looked online for tire air pressure gauges and just ordered one. There are a variety of gauges on the market, I bought the Accutire Programmable Gauge for under $20. It remembers the proper pressure for both front and back tires.

I then checked out www.fueleconomy.gov to look up our car’s fuel economy, or the miles it gets per gallon of gas, and then calculated approximately how many gallons we need a month. I also checked to see what a gallon of fuel produces in terms of CO2 emissions. What I found when I put all these numbers together is that, if we keep our tires properly inflated, we should save about 11 gallons in car fuel purchases over a year and avoid about 215 pounds of CO2 emissions. Not bad for something that takes a couple minutes to check.

www.fueleconomy.gov offers these other tips to improve your car’s fuel efficiency and reduce
Keep your engine properly tuned. Fixing a car that is noticeably out of tune or has failed an emissions test can improve its gas mileage by an average of 4 percent, though results vary based on the kind of repair and how well it is done. Fixing a serious maintenance problem, such as a faulty oxygen sensor, can improve your mileage by as much as 40 percent.

Check and replace air filters regularly. Replacing a clogged air filter can improve your car's gas mileage by as much as 10 percent. Your car's air filter keeps impurities from damaging the inside of your engine. Not only will replacing a dirty air filter save gas, it will protect your engine.

Use the recommended grade of motor oil. You can improve your gas mileage by 1-2 percent by using the manufacturer's recommended grade of motor oil. For example, using 10W-30 motor oil in an engine designed to use 5W-30 can lower your gas mileage by 1-2 percent. Using 5W-30 in an engine designed for 5W-20 can lower your gas mileage by 1-1.5 percent. Also, look for motor oil that says "Energy Conserving" on the API performance symbol to be sure it contains friction-reducing additives.

Energy Diet Step 5: Choose Recycled Paper
Filed under: Paper, Recycled paper, Carbon reduction
4:34 pm - February 17, 2007

Who would have thought a stack of computer paper could have so much impact on the environment? Simply choosing 100 percent post-consumer recycled paper can save 5 pounds of carbon dioxide per ream.

The paper industry, in fact, emits around 10% of all carbon emissions in the U.S.. I don't like paper clutter and so generally print out only what's absolutely necessary. My husband is a bit more paper-happy, and so between our home offices and the kids' school work, we use probably 20 reams a year. By switching to 100% post consumer recycled paper, we are shedding another 100 pounds of CO2 from our annual carbon output.


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Energy Diet Step 4: Better a Sweater
Filed under: Energy saving measures, Carbon footprint
4:44 pm - February 6, 2007

Man, it's cold, dangerously cold in places. But I'm not going to turn up my thermostat. In fact, I've turned it down, to 67 degrees when we're home, and to 58 degrees when we're not home or going to bed. A sweater in the evening and an extra quilt or blanket on the bed is all we find we need to be cozy and comfortable.

With the release just last week of the findings of the Intergovernmental Panel on Climate Change (IPCC) which concluded that human activity, fossil-fuel use and land use change in particular, is primarily responsible for the increased atmospheric concentration of greenhouse gases, my carbon diet has taken on even greater relevance. And how simple it is to lower the thermostat a few degrees, yet surprisingly effective a means to save energy and reduce CO2 emissions. In fact, the modest drop of a few degrees on my thermostat dial is estimated to yield an annual CO2 reduction of 1,400 pounds.

Truth is, I'm surprised how much of a difference some fairly minor adjustments to energy use in our apartment can make. Having taken just four basic steps, I will have dropped over 12,000 pounds of CO2 (over the course of the year). But the year is still young and I'm just getting started. Please let me know some more ways to shed those unwanted emissions.

For information on programmable thermostats and more tips and advice on ways to save energy and money read on.

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Energy Diet Step 3: Change Light Bulbs
Filed under: Energy saving measures, Compact Fluorescent Lights, Carbon footprint
11:03 am - January 23, 2007

Today, I'm changing light bulbs, but before I do, I'm changing
my goal. I had pledged to reduce my annual CO2 footprint by 3100 pounds, the goal that would have been required of Americans had we signed the Kyoto Protocol. But by switching to Green Power, I will have met my goal three times over in one year's time. So rather than 3100 pounds of CO2 reduced, I'm moving my goal to 15,000 pounds reduced over a year.

Now back to light bulbs. Yes, I know you've heard it all before but have you changed any lately? Our apartment has alot of recessed lights in the ceiling. I'm going to deal with those another time. Today, I'm changing the lights in my lamps. I just counted. I have 4 CFLs (compact fluorescent light bulbs) in lamps which I installed in the last century (so I know they last a long time). I counted 18 other standard incandescent light bulbs in lamps which I am going to replace with CFLs.

As our lamps are in places where we want light to read, work or study, I want bulbs that give off a bright, warm light. To find out which CFLs meet my needs, I used the very handy Make the Switch light-bulb finder created by Environmental Defense. I filled out a quick 3-step multiple choice questionnaire, clicked "see our list" and got a selection of CFLs that will meet my needs.

There are a number on the list, but I am going to buy the Greenlite 23-Watt Spiral, since it costs just $5.00 per bulb (yes, more than the incandescent) but lasts 10,000 hours (yes, years longer than incandescents). I'm going to buy 18.

Sometimes the bulb ballast doesn't fit in the socket. If I need to I will buy socket extenders.

Environmental Defense listed these three suppliers: BlackEnergy, Energy Federation Incorporated, and BuyLighting.com.

Now what will all these light bulbs get me in terms of CO2 reduction? Using a simple calculator, I should save $2200 on my energy bill and reduce CO2 emissions by 12,400 pounds over the life of the 18 bulbs. I'm estimating that I won't need to switch these bulbs for 10 years, so my annual CO2 reduction is 1,240 pounds, not bad for $90. And this is just the beginning. I'll switch my recessed dimmables another time.

For more information on CFLs, see Green Guide's Lightbulb Product Report.


Energy Diet Step 2: Convert to Green Power

Filed under: Energy, renewable energy, Wind energy, Green Power

11:05 am - January 15, 2007

The next step I am going to take to reduce my CO2 footprint is to switch to green power. I live in New York City, and my utility is Con Edison. They have a program called Green Power for residents and business customers. By selecting Green Power, I can buy electricity generated from regional wind and low-impact hydropower sources.

Con Edison makes it incredibly easy for its customers to sign up online simply by entering one's service information. And although it costs a bit more, ConEd's GREEN Power costs only an additional one cent per kilowatt-hour (kWh) more than the utility's standard offer and WIND Power just 2.5 cents per kilowatt-hour (kWh) more, making it a very affordable way to make a difference. By switching to Green Power for the energy needs of my 2-bedroom apartment (which averages out to be about 925kWh/month) I'm reducing my CO2 emissions by about 795 pounds per month.

More than 50% of retail customers in the United States now have an option of purchasing a green power product directly from their electricity supplier. By choosing to purchase a green power product, you can support increased development of renewable energy sources, which can reduce the burning of fossil fuels, such as coal, oil, and natural gas. Greater reliance on renewable sources also provides economic benefits and can improve our national energy security.

Even if your state is not implementing electricity market competition, you may still be able to purchase green power through your regulated utility. More than 600 regulated utilities spanning more than 30 states offer "green pricing" programs (see our map of green pricing programs). The term green pricing refers to an optional utility service that allows customers to support a greater level of utility investment in renewable energy by paying a premium on their electric bill to cover any above-market costs of acquiring renewable energy resources.

Finally, whether or not you have access to green power through your utility or a competitive electricity marketer, you can purchase renewable energy certificates (RECs). RECs (also known as green tags, green energy certificates, or tradable green energy certificates) represent the environmental attributes of power generated from renewable electric plants. A variety of organizations offer RECs separate from electricity service, that is, you need not switch from your current electricity supplier in order to purchase these certificates.
To find out what green power options are available in your state, visit the "Can I Buy Green Power in My State?" web page maintained by the National Renewable Energy Laboratory and the Department of Energy, where you can click on your state to view available green power products.

I was also curious to know whether the Green Power offered by Con Edison was certified. Indeed, it is, by a well-respected organization called Green-e, a voluntary certification and verification program for wholesale, retail, and commercial electricity products, tradable renewable certificates (TRCs) and utility green pricing programs in the U.S. Green-e certifies about 100 retail and wholesale green power marketers across the country. To be sure that your green power purchase will benefit the environment, check out Green Power Consumer Protection.


Energy Diet Step 1: Buy Energy Star Refrigerator
Filed under: Energy efficiency, Global warming and climate change, Refrigerator
11:08 am - January 9, 2007

Emily Main captures well my own concerns and probably those of many others in her latest book review “New Year's Resolution: Stop Global Warming.” So, even though I've worked for 25 years as an environmental professional, and had my share of anxieties about the fate of the planet before, the bizarre weather this winter has brought it all home and deepened my resolve to get serious about reducing my own personal impact on the planet. So starting here and now, I’m committing in 2007 to shrink my eco-footprint.

Had the U.S. signed the Kyoto Protocol, it would have required us to cut CO2 emissions by about 3100 pounds per person annually. That’s about a tenth as much as many climate scientists say is necessary to limit global warming, but I am going to use it as my personal goal for 2007 and see how fast I can reach it.

I'm going to start by changing my refrigerator. As mine is over 12 years old, and energy experts figure, could be using 60 percent more energy than a newer model, I’m going to replace it in the next six to eight weeks. The fact is, the refrigerator is the most power hungry appliance in the kitchen. If I buy an Energy Star refrigerator, the USEPA and DOE say I will save about 934 kilowatt hours in energy and cut CO2 emissions by 1112 pounds over its lifetime. If I keep it for 12 years, that means I’ll cut my annual energy use by 78 kilowatt hours and reduce annual CO2 emissions by 93 pounds.

The Green Guide's Product Report to Refrigerators identifies a number of excellent, reasonably priced, Energy Star refrigerators. Top freezers appear not only to be less expensive than bottom freezers and side-by-side models, they also are the most energy efficient which means they are the least costly to operate and cause the least amount of CO2 to be emitted into the atmosphere.

If you are replacing your refrigerator this year too, don't keep the old one running in the basement or garage. Better to make sure the new one has the capacity you need for your household.

For more information about Energy Star refrigerators, and to see the calculator I used to measure the cost and energy savings I'll make with a new Energy Star refrigerator, go to Energystar.gov.


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