

Bright Ideas

Tips to help your borough cut down greenhouse gas emissions

Municipalities or regional partnerships between local governments that are interested in helping to reduce greenhouse gas levels and use energy in a more efficient manner can apply now for funding through the Local Government Greenhouse Gas Pilot Grant Program from the Department of Environmental Protection (AFP).

This new grant program will help local governments develop greenhouse gas inventories and emissions reduction action plans. Applications for the grant will be available beginning in June by visiting DEP's web site at www.depweb.state.pa.us, keyword: Grants.

In order to reduce greenhouse gas emissions, one must first understand the source and quantity of emissions generated. A greenhouse gas inventory is a comprehensive accounting of all greenhouse gases that are released into the atmosphere through direct activities (such as burning natural gas in a furnace) and indirect activities (such as the use of electricity that is generated from

fossil fuel combustion).

An action plan, also referred to as a mitigation plan, offers specific recommendations on ways to reduce greenhouse gas emissions. Recommended actions included in the plan are tailored to the specific needs of the municipality. For the purposes of this pilot grant program, municipalities are not required to implement the recommendations of the action plan.

However, if implemented, these recommendations can result in improved energy efficiency, which typically decreases energy costs and yield long-term financial savings.

The department will be looking for progressive municipalities that have, for example, identified and taken action to reduce energy consumption, develop and/or purchase electricity from renewable resources and are addressing land use and transportation through Smart Growth principles. Neighboring municipalities are encouraged to build partnerships and submit a regional application. DEP will be looking for a diverse group

of municipalities from throughout Pennsylvania to apply for these grants.

The \$300,000 that is available through this program will provide up to \$20,000 to each individual municipality. A regional application, with multiple municipalities, can

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request an amount greater than \$20,000 (but no more than \$20,000 per participating municipality). Grant funding will be awarded on an upfront basis. The deadline for submitting applications is August 29, 2008.

Increasing greenhouse gas emissions are contributing to a changing climate, the economic and environmental threats from which are significant. The Commonwealth is committed to minimizing these impacts and building a cleaner, greener and more energy efficient economy.

What is Greenhouse Gas?

Greenhouse gases (GHG) are the gases present in the atmosphere, which reduce the loss of heat into space and therefore contribute to global temperatures through the greenhouse effect. They are essential to maintaining the temperature of the Earth; however, an excess of greenhouse gases can raise the temperature of a planet to lethal levels. On Earth, the most abundant greenhouse gases are water vapor, carbon dioxide, methane, nitrous oxide, ozone and CFCs.

What is the "Greenhouse Effect?"

When sunlight reaches the surface of the Earth, some of it is absorbed and warms the surface. Because the Earth's surface is much cooler than the sun, it radiates energy at much longer wavelengths than the sun does. The atmosphere absorbs these longer wavelengths more effectively than it does the shorter wavelengths from the sun, causing the atmosphere to be warmed.

Greenhouse Gases at Home

The U.S. EPA ranks the major greenhouse gas contributing end-user sectors in the following order: industrial, transportation, residential, commercial and agricultural. Major sources of an individual's GHG include home heating and cooling, electricity consumption and transportation. Conservation measures included improving insulation, using compact fluorescent lamps and choosing energy efficient vehicles.

The EPA has recently posted a Greenhouse Gas Savings Calculator on its web site. The tool allows local governments to translate their greenhouse gas savings estimates into more easily understood terms. The calculator converts greenhouse gas-related savings estimates, typically presented in "million metric tons of carbon dioxide equivalents,"

into familiar terms such as the greenhouse gas emissions that would result from everyday occurrences, such as driving a particular number of cars for a year, using a particular amount of gasoline, providing energy to a particular number of homes for a year, growing trees across a particular number of acres for a year or recycling a particular quantity of waste instead of sending it to the landfill. To use the calculator, visit <http://epa.gov/cleanenergy/energy-resources/calculator.html>.

Additionally, the Pennsylvania Department of Environmental Protection (DEP) is highlighting the department's new compact fluorescent light bulb (CFL) recycling campaign. The increasingly popular swirly tube bulbs are so efficient they can substantially reduce the amount of energy consumed, which is good for the environment. The bulbs can save consumers up to 75 percent of the energy used by traditional incandescent bulbs. Though the compact fluorescent light bulbs cost more, the energy savings pay back the higher upfront costs in as little as four months. Over its entire lifecycle, each CFL can save a consumer more than \$60. CFLs also last up to 10 times longer than traditional bulbs.

DEP realized that some consumers may be reluctant to use CFLs because they are not sure how to dispose of them properly or recycling options are limited. Therefore, they have launched a campaign to make it more convenient for the public to recycle the bulbs. The department is providing receptacles to municipalities, small businesses and community organizations across the state hoping the experience will lead participants to continue with their own programs.

DEP's statewide campaign will also include an effort to increase public awareness of the economic



GET THE GREEN LIGHT Join DEP's state-wide campaign to recycle CFLs in your borough.

and environmental benefits CFLs can offer. The department has a fact sheet that outlines potential savings and estimates of how much pollution Pennsylvanians can cut from power plants through energy-efficient lighting.

If CFL recycling services are not available locally, residents can recycle the bulbs at household hazardous waste collection events in their communities. DEP reimburses organizers 50 percent of the cost for holding collection events where residents can safely recycle potentially hazardous wastes, such as pesticides, cleaners and rechargeable batteries.

To see the compact fluorescent light bulb fact sheet and learn more about the DEP recycling campaign, visit www.depweb.state.pa.us, keyword: Household Hazardous Waste. The information can also be found at the above web site by pulling down the "Energy Topics" tab on the top navigation bar, clicking on "Energy" and referencing the "What's New" column. **(B)**