Winter Heating Tips for District Residents & Small Businesses

Heat Smart

Be Smart

"People Saving and Conserving"

District of Columbia
Public Service Commission

"People Saving & Conserving"

The District of Columbia Public Service Commission is an independent agency established by Congress in 1913 to regulate electric, natural gas, and local telephone companies in the District of Columbia.

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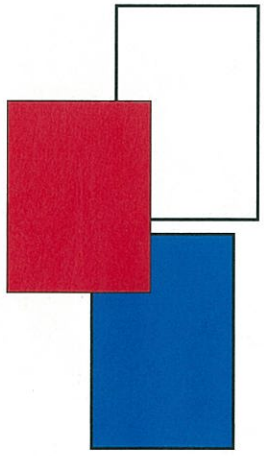
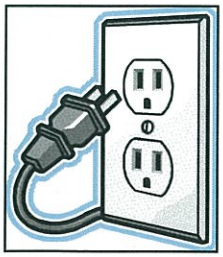
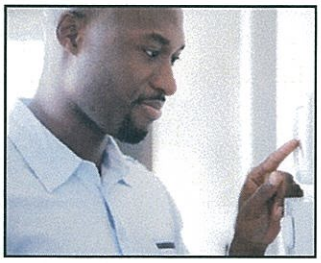


People Saving & Conserving





Message from the Chair

The D.C. Public Service Commission understands that energy costs can really pinch the wallets of District residents. So as the Commission works hard to ensure District consumers receive safe, reliable and quality services over the long term, there are small and smart steps consumers can do to reduce their heating costs.

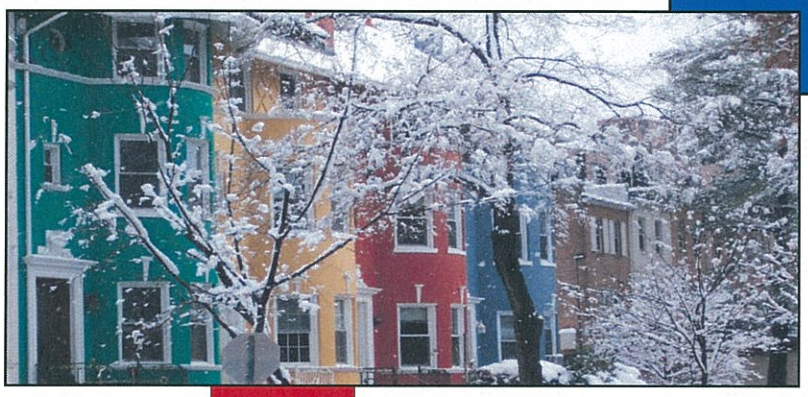
The "**Be Smart, Heat Smart**" booklet provides tips on how to make your home and business energy efficient and to save money.

Through our **EducateDConsumer** campaign, we inform consumers on how to make better energy choices. Make sure to visit our website at www.dcpsc.org to learn more about the Commission and our services.

We believe that our little efforts can go a long way.

Betty Ann Kane
Chairman

Energy Efficiency Tips for Your Home

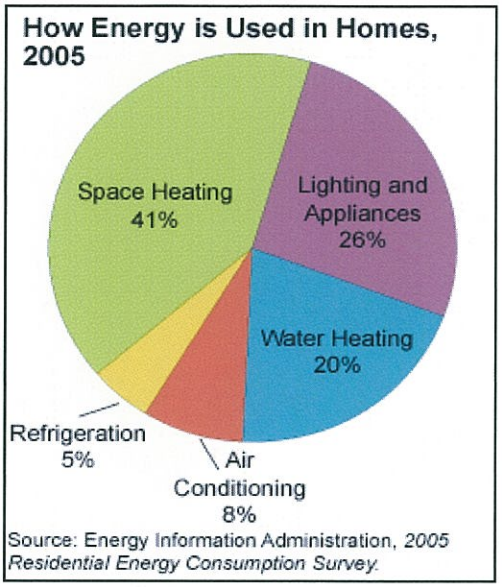


Commission staff conducting a natural gas refereed meter test with a consumer.

Heat Smart

Be Smart

Heating costs consume 41% of a household's energy budget. This makes it important to check your home to ensure that your heating dollars are not wasted. When cold weather approaches, use the following checklist to make your home more comfortable and keep your energy bills affordable.



Find Leaks

Many homes are poorly insulated and not sealed against air leaks. Improperly sealed homes can waste 10% to 15% of a resident's heating dollars.

So first, you need to find any leaks. Check for indoor air leaks, such as gaps along the baseboard or edge of the flooring and where the walls and ceilings come together.

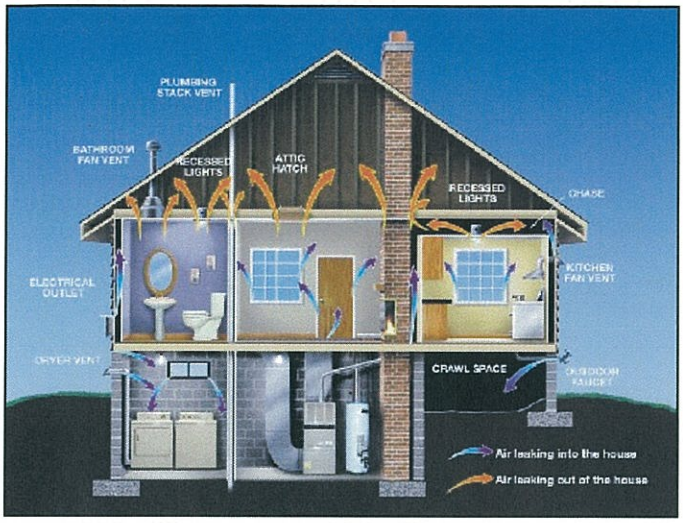


Diagram of a leaky home from energystar.gov.

Check to see if air flows around the following places:

- Electrical outlets
- Switch plates
- Window frames
- Baseboards
- Weather stripping around doors
- Fireplace dampers
- Attic hatches
- Wall- or window-mounted air conditioners.

If you are having trouble finding air leaks, try the following:

- Look for daylight around the frames of windows and doors. If you see light, there is a leak.
- Light a stick of incense and hold it in areas you think are drafty. Moving air makes the smoke waver, showing you where there is a leak.

Eliminate Leaks

Once you locate the leaks, there are several steps you can take to seal your home.

- Examine your heating ducts for leaks. Think of your ductwork as huge hoses, bringing hot air instead of water into your house. Mostly out of sight, ducts can leak for years without you knowing it. They can become torn or crushed and flattened. Old duct tape is the worse thing to use to seal ductwork, because it will dry up and fall away over time, allowing junctions and splices to open, and spilling heated air into your attic or under the house.

- Add weather-stripping and caulk any holes that allow heat to escape. Make sure doors are sealed properly.

Consider replacing windows.

- If your windows leak badly, consider replacing them with newer, more efficient ones. Keep in mind, however, that replacing windows can be expensive. It can take you quite awhile to recover your costs from the energy savings alone. But new windows also provide other benefits, such as improved appearance and comfort. Look for

double-paned windows with "Low-e" (low emissivity) coatings and gas filling such as argon and krypton between panes. These can improve thermal performance and reduce UV ray penetration, which fades rugs and furniture. Government criteria for windows classified as ENERGY STAR® are listed at www.energystar.gov.

Weather-strip your window to seal leaks in their home.

• Seal with caulking or weather-stripping. Every duct, wire, or pipe that penetrates a wall, ceiling, or floor has the potential to waste energy. Plumbing vents can be especially bad, since they begin below the floor and go all the way through the roof.

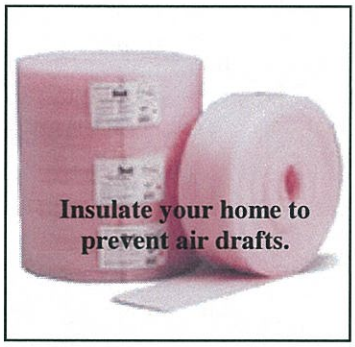
• Purchase simple-to-install, pre-cut foam gaskets that fit behind the switch plate and effectively prevent leaks. Electric wall plugs and switches can allow cold air in.

• If you have a fireplace, remember to close the damper when the fireplace is not in use. It is an effective energy-saving tip that costs you nothing. Of course the damper needs to be open if a fire is burning; but if the damper is open when you're not using the fireplace, your chimney functions as a large

open window that draws warm air out of the room and creates a draft.

Add Insulation

• Insulate your attic. In an older home, that can be the most cost-effective way to cut home heating costs. Before energy efficiency standards, homes were often built with little or no insulation. As a result, large amounts of heat can be lost through walls and floors, since heat rises, especially through ceilings.


Insulate your home to prevent air drafts.

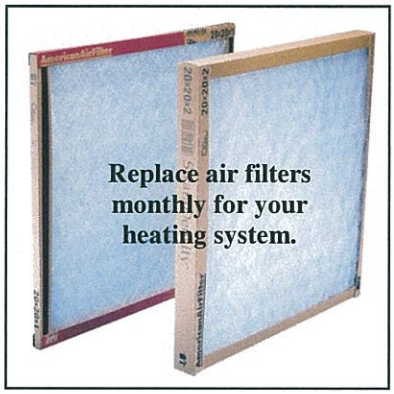
• Weather-strip and insulate your attic hatch or door to prevent warm air from escaping out the top of your house. Seal holes in the attic that lead down into the house, such as open wall tops and duct, plumbing, or electrical runs. Any hole that leads from a basement or crawlspace to an attic is a big energy waster. Cover and seal them with spray foam and rigid foam board if necessary.

Maintain Your Heating System

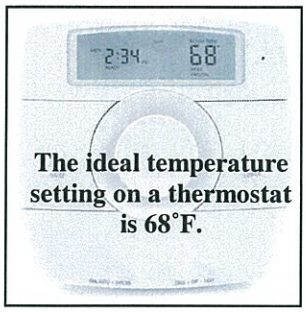
• Maintain your heating system by getting a routine inspection each autumn to ensure it is in good working order. Have a licensed contractor or

other qualified technician check your heating system, water heater, water pipes, and ducts.

- Clean or replace the air filter on your furnace monthly. Your heating system will work less hard, use less energy, and last longer as a result. Most homeowners can replace filters and do such simple tasks as cleaning and removing dust from vents or along baseboard heaters.



- Consider updating your heating system if it is more than 30 years old. A pre-1977 natural gas furnace is probably 50% to 60% efficient. That means only half of the fuel used by the furnace actually reaches your home as heat. Modern natural gas furnaces, on the other hand, achieve efficiency ratings as high as 97%. By replacing an old heating system with one of the most efficient models, you can cut your natural gas use nearly in half. If you purchase an energy-efficient product or renewable energy system for your home, you may be eligible for a federal tax credit. Contact ENERGY STAR® at 1-888-782-7937 for more information.



The ideal temperature setting on a thermostat is 68°F.

• Install a programmable or set-back thermostat. A programmable thermostat allows you to automatically turn down the heat when you are away at work or when you are sleeping at night, and then automatically increase the temperature to a comfortable level when you need it. Remember, it takes less energy to warm a cool home than to maintain a warm temperature all day long. Properly using your set-back thermostat can cut your heating costs by 20% to 75%.

• Reverse the switch on your ceiling fans so they blow upward, toward the ceiling in the winter. Ceiling fans are a great idea in the summer, when air blowing downward can improve circulation and make a room feel four degrees cooler. However, a cooling draft is a poor idea when it is cold. By reversing the fan's direction, the blades move air upward in winter. This is especially valuable in rooms with high ceilings, where heat that naturally rises is forced back down into the room.

• Ensure all vents are open and unblocked by furniture or other items so the heat is evenly distributed through the rooms in your house.

- Use insulation kits to wrap the water heater and hot water pipes leading from the tank.

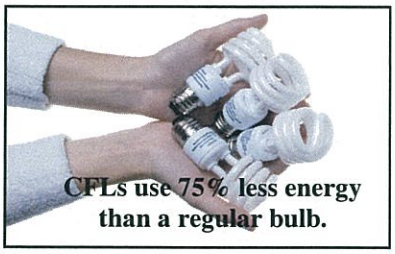
It is important to install a heat pump that is best for the climate in your area.

- Learn which kind of heat pump is best for your area before installing one in your home or office building. If you install the wrong kind of heat pump, you may end up paying even more in energy costs than you do already. Heat pumps work very efficiently when the outdoor temperature is around 50°F. As the outdoor temperature drops, the heat loss in the home is greater, and the heat pump needs to operate for longer periods of time to maintain a constant indoor temperature. As a result, heat pumps are not energy efficient for cold temperatures over a prolonged period of time because heat pumps use more energy than they produce. Around 37°F, many heat pumps reach what is called the balance point. At or near this temperature the heat pump needs to run constantly to produce

enough heat to maintain a comfortable indoor temperature. As the outdoor temperature continues to drop, the heat pump needs help from traditional electric resistance heat coils. These coils resemble the glowing wires inside your toaster and consume electricity as they burn to keep you warm. Your thermostat will most probably have a light that comes on when this happens. It is usually labeled as emergency or auxiliary heat. If this light is on whenever your heat pump is working, you should have a professional service your system.

Use Energy Efficient Light Bulbs

- To reduce electricity usage, purchase compact fluorescent bulbs (CFLs) instead of incandescent bulbs. CFLs use 75% less energy and last about 10 times longer than incandescent bulbs. CFLs contain a small amount of mercury, but it is not a problem if disposed of properly. Pepco's District of Columbia CFL Campaign offers discounts on CFLs for District residents. For more information, contact Pepco at 1-866-353 -5798. For a list of stores, visit the Commission website at www.dcpsc.org.



CFLs use 75% less energy than a regular bulb.

•Turn off all lights if you leave a room for more than 15 minutes.

ENERGYSTAR.GOV provides information on energy efficient products and practices.

•Incorporate more daylight into your home by using energy-efficient windows and skylights. Open window blinds or curtains during the day to allow sunlight into your rooms.

<u>Purchase ENERGY STAR® Appliances</u>

• Purchase appliances with the ENERGY STAR® logo. Appliances account for about 20% of a household's energy consumption with refrigerators, washers and dryers leading the way. ENERGY STAR® appliances use 10% to 50% less energy and water than standard models.

• If you have a computer, choose settings that automatically switch the monitor into sleep or "power-down" mode when it is not being used.

- Unplug electronic devices when possible and use power strip surge protectors. Also an "electricity meter" can help pinpoint energy-guzzling appliances.

- Switch off electronic devices at the source, rather than just from the remote control, which puts them on power-consuming stand-by mode. Video game consoles, plasma flat screen TVs, and desktop computers are major electricity guzzlers, even when left on stand-by.

Purchase Energy Efficient Portable Heaters

- Purchase newer model heaters that have all of the current safety features. Make sure the heater has the Underwriter's Laboratory (UL) label attached to it.

- Choose a controlled heater with a thermostat so it can cycle on or off to maintain a certain temperature and comfort level, while minimizing electricity usage.

- Select a properly sized heater for the room you wish to heat. Do not purchase oversized heaters. Most portable heaters come with a general sizing table.

Buy a portable heater or space heater with a tip-over safety switch.

- Locate the portable heater on a level surface away from foot traffic. Be especially careful to keep children and pets away from the heater.

- Place electric heaters directly into the wall outlet. If an extension cord is necessary, use a heavy-duty cord of 14-guage wire or larger.

- Buy a unit with a tip-over safety switch, which automatically shuts off the heater if the unit falls.

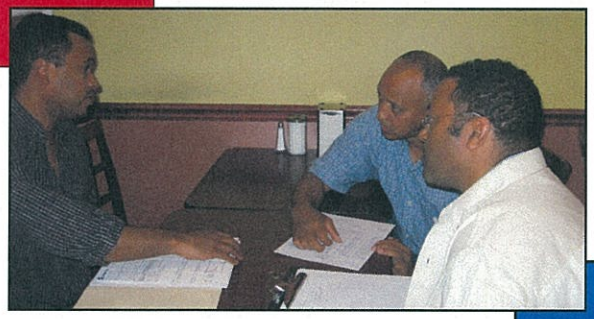
Get a Home Energy Audit

• To improve the overall energy efficiency of your home, request a home energy audit from the D.C. Department of the Environment. For more information, call 202.671.3304 or 202.673.6733.

Inspector conducting a home energy audit.

Information is from the Consumer Energy Center. www.consumerenergycenter.org

Energy Efficiency Tips for Your Small Business



Small business receiving an energy audit.

Home offices can also benefit from an energy audit.

Be Smart Heat Smart

Cutting back unnecessary energy use keeps hard-earned money in your pocket. Here are some ideas, including some you can put to work in minutes at no cost to you.

General Tips

- Use large equipment during off-peak hours whenever possible. Turn equipment and lights off after hours.

- Always choose ENERGY STAR® products whenever possible.

- Set energy-saving features on all of your office equipment to put them into sleep mode when not in use.

- Get an energy audit to help identify ways to save money.

Heating and Ventilation Systems - Improve Efficiency

• Set the thermostat in your workspace to 68˚F during work hours and decrease the setting to 60˚F when the space is unoccupied. For every degree you lower the heat in the 60˚F to 70˚F range, you can save up to 5% on heating costs.

• Use a programmable thermostat or set-back and make it easy to adjust the settings as well as to regulate the temperature when you are closed to avoid unnecessary heating costs. Consider initially a locking cover over the thermostat to avoid having employees change temperature settings.

• Open window blinds to warm your rooms from direct sunlight.

• Allow your workers to wear warm clothing during cool weather. It makes little sense to keep a room hot enough that workers wear hot weather clothing.

• To save energy, keep your exterior and freight doors closed as much as possible.

• Keep your heating and ventilation systems tuned. Maintain a regular filter replacement and cleaning schedule.

• Install ceiling fans to circulate the warm air, pulling it away from the ceiling. Remember to change the fan rotation so it is reversed for summer use.

• When buying a new heating and ventilation unit, choose an ENERGY STAR system. They are 20% to 30% more efficient than older models.

• Rewire restroom fans to operate with the lights.

• When possible, remove solar screens, blinds, or awnings, on the south and west facing windows to help increase heat gain during the winter months. Replace them during the summer.

Insulating a water heater helps reduce your heating costs.

• Use insulation kits to wrap the water heater and hot water pipes leading from the tank.

- If possible, install ceiling and wall insulation. You will save money on your monthly utility bills and your employees will be more comfortable.

Lighting - The Right Light for the Right Task

Many offices, stores, and factories can easily reduce lighting without affecting productivity.

- When a room is empty, turn off as many lights as possible.

- Use task lighting instead of overhead lighting, and light only those areas that are needed at the time. Providing the right lighting can save up to 15% on your lighting bill. Again, make sure that equipment and lights are turned off after hours.

- Replace old fluorescent lights with newer, more efficient models with electronic ballasts. To help you make the best choice for lighting options, including power reducers, seek professional advice.

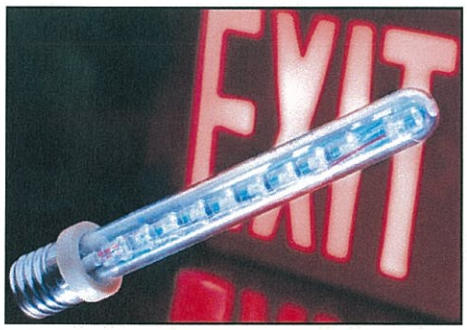
- Replace your incandescent light bulbs with compact fluorescent lights (CFLs). CFLs use 75% less electricity to produce the same amount of light as an incandescent bulb. The CFLs will last about

10,000 hours as opposed to the 600- to 1,000-hour average life of an incandescent.

- Make sure that bulbs, fixtures, lenses, lamps and reflective surfaces are cleaned regularly. By removing grease, dust, and other dirt, you can increase the output of your lights.

- Install automatic room-lighting controls to turn lights on or off depending on occupancy or time of day.

- Replace incandescent or fluorescent exit signs with LED (light-emitting diode) exit signs. LEDs use up to 90% less electricity.



LEDs consume less energy and lasts longer than traditional lighting for small businesses.

Buy electronics with the ENERGY STAR© logo to ensure its energy efficient.

Computers and Other Equipment

- Turn off your computers and any other office equipment when you're not using them, especially overnight and on weekends.

- Purchase "Smart" power strips that sense the presence or absence of office workers and turn the attached equipment on and off accordingly.

- Buy office equipment that displays the ENERGY STAR® logo.

- Choose settings that automatically switch computer monitors into sleep or "power-down" mode when monitors haven't been

used for a preset amount of time. Shorten the delay time before your monitor automatically go into sleep mode.

- Consider having employees use laptop computers since they use up to 90% less energy than a standard computer.

- Purchase the proper sized copier for your business needs.

- Choose flat-panel computer monitors rather than regular cathode ray tube (CRT) monitor. Some flat-panel liquid crystal display (LCD) monitors use considerably less electricity than comparably sized CRT models, but the extra first cost is still much more than the lifetime energy savings.

Information is from the Consumer Energy Center.www.consumerenergycenter.org

Other Sources

US Department of Energy (DOE)
Office of Energy Efficiency & Renewable Energy

http://www.eere.energy.gov

http://energysavers.gov

1-877-EERE-INF

The DOE Office of Energy Efficiency and Renewable Energy's (EERE) Information Center answers questions about EERE's products, services, and technology programs, and refers callers to the most appropriate EERE resources.

ENERGY STAR®

http://www.energystar.gov

1-888-782-7937

ENERGY STAR is a joint program of the U.S. Environmental Protection Agency and the U.S. Department of Energy to help us all save money and protect the environment through energy efficient products and practices.

District Department of the Environment's Energy Office (DDOE)

DDOE
DISTRICT DEPARTMENT OF THE ENVIRONMENT

http://ddoe.dc.gov

202-673-6750

DDOE is a one-stop-shop for programs and services that protect human health and the environment and address energy efficiency issues for all sectors of the city.

Green DC

green.dc

http://green.dc.gov

This site is a comprehensive resource on environmental issues in the District of Columbia. Here, you'll find information about current programs, policies, services, events, and issues.

Other Sources

Pepco's Residential Lighting & Appliance Program

http://www.pepco.com/energy/conservation/dcprogram/

http://www.pepco.com/energy/conservation/appliance

1-866-353-5798

Contact Pepco to learn about rebates on select ENERGY STAR qualified appliances and discounts on CFL bulbs for District consumers.

Washington Gas

http://www.washgas.com

703-750-1000

District of Columbia
Public Service Commission

"People Saving & Conserving"

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www.dcpsc.org

Consumers can visit our offices Monday through Friday (except holidays) between 9:00 a.m. and 5:30 p.m.

Telecommunications Relay Service (TTY) - 711

District of Columbia residents can now dial 711 to communicate with deaf, hard-of-hearing, or speech-impaired people who use text telephones or TTY devices. The current D.C. relay numbers are 202.855.1234 (text users) and 202.855.1000 (voice users) and are available for calls within the District.

Before Digging, Call 811

Call 811 at least 48 hours in advance of all digging or construction.

As of 1/22/13