Your Energy Savings

A Resident's Handbook

Partnership for Affordable Housing

Midwest Edition

Dedicated to those for whom the low operating cost of housing is not a luxury.

Acknowledgments

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Your Energy Savings

A Resident's Handbook

Midwest Edition

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Foreword

This handbook provides information to apartment residents on how they can reduce their energy costs without reducing their comfort. The information is based on experiences in Chicago with buildings rehabbed in energy efficiency programs sponsored by the Illinois Department of Commerce and Community Affairs and ComEd.

Though the buildings are located in Chicago, this information will be useful to residents throughout the Midwest—in cities like Columbus, Des Moines, Detroit, Indianapolis, Milwaukee, Minneapolis, Rockford, or St. Louis.

Michael Myers
U.S. Department of Energy

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1 Introduction

Your Energy Savings

Energy-Efficient Rehab: **A Definition**

Welcome to your new apartment! As you know, all the apartments in your building were fixed (that is, renovated or rehabbed) before you moved in. A lot of the work that was done is what you might expect to find in any rehabbed

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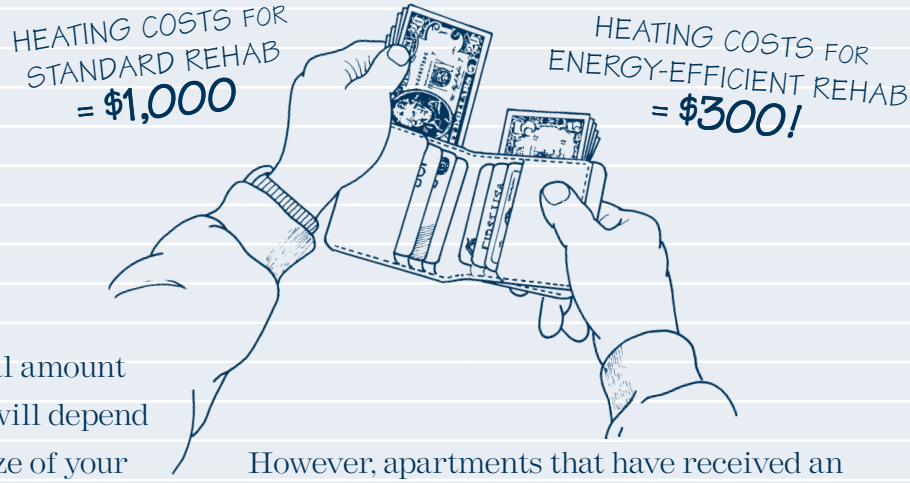
building: new paint, carpeting, kitchen cabinets, and windows. However, your building also includes energy-efficient features.

For instance, look at your walls. If your building is made of brick, they are thicker than walls in other brick buildings because insulation was added to them. Insulation helps keep heat inside during the winter and outside during the summer. Your windows are special because they help keep inside air in and outside air out. Your heating system is designed to use as much hot air as possible to warm your home instead of venting it through the chimney. **These and other energy-efficient features in your building could cut your energy costs in half!**

Often a family's biggest expense after rent is the cost for heat and electricity. But your apartment was specially rehabbed to help keep this cost as low as possible. **In fact, by living in this building, you could save enough money in gas and electricity bills each year to cover one month's rent.** And this is money you can use for other things you might need.

This booklet tells you about the special energy-efficient features in your building.

It also gives you TIPS on how to make the most of those features so that you can save as much money as possible on your energy bills—**maybe even enough to equal two months' rent!**



Remember, though, that the actual amount you save on your bills each year will depend on a number of things, like the size of your apartment. But generally speaking, in a colder climate like Chicago or other Midwest cities, apartments that are not energy efficient cost $600 to $1,000 (or more) per year to heat. (This averages out to $50 to $83 a month to heat.)

However, apartments that have received an energy-efficient rehab cost only about $300 a year (or $25 a month) to heat. **The features in this building could help you save $300 to $700 a year (or $25 to $58 a month) on your heating bills!**

How to Use this Booklet

Think of this booklet as an **Apartment Manual**. Your apartment is special. Learn about it by reading this booklet. If you still have any questions, contact your building manager.

This booklet will help you:

- Understand your building's built-in energy-efficient features,
- Learn what you can do to save even more money on your energy bills
- Learn how to use the features in a safe and healthy manner, and
- Learn how to stay comfortable in winter and summer.

It is divided into the following chapters:

2 The Built-in Energy-Efficient Features of Your Apartment

Explains the special built-in features that will automatically save you money on your energy bills.

3 What You Can Do to Save Even More on Your Energy Bills

Discusses how you can work with these features to get even bigger savings.

4 Keeping Safe, Healthy, and Comfortable

Describes what you should and shouldn't do to be more safe, healthy, and comfortable.

5 Appliances

Explains how you can cut your electricity use by using your appliances wisely.

6 Let's Wrap It Up

Summarizes key points for keeping the energy savings coming year after year.

7 Additional Resources

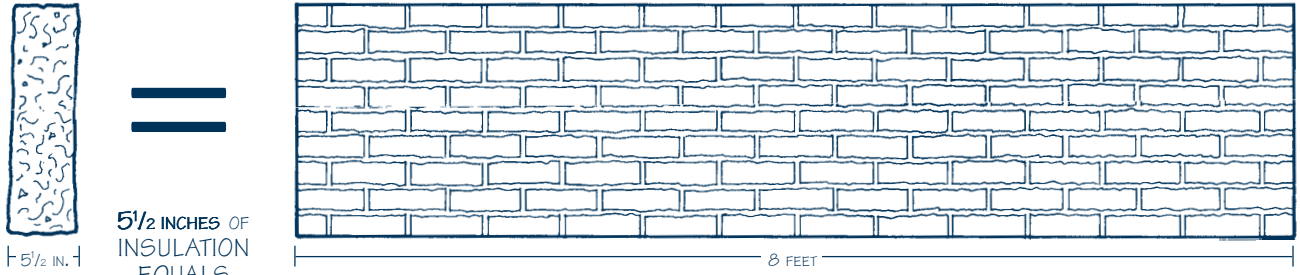
Lists contacts for further information on energy efficiency, building maintenance, and housing-related subjects.

2 The Built-in Energy-Efficient Features of Your Apartment

Walls:

Why are they so thick?

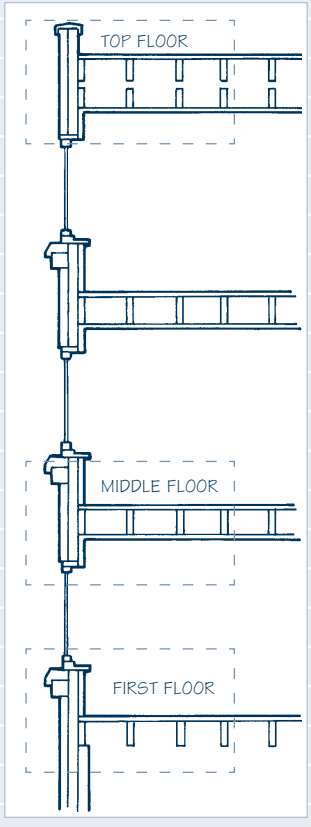
If you live in a brick building, one of the first things you might notice about your apartment is how thick the walls are. Look at the walls near the windows. **The reason they are thick is because they are filled with insulation, which acts like a blanket wrapped around the building.** Insulation was installed to stop the movement of heat. (If your building is made of wood, the insulation is inside the walls, and they are not thicker.)

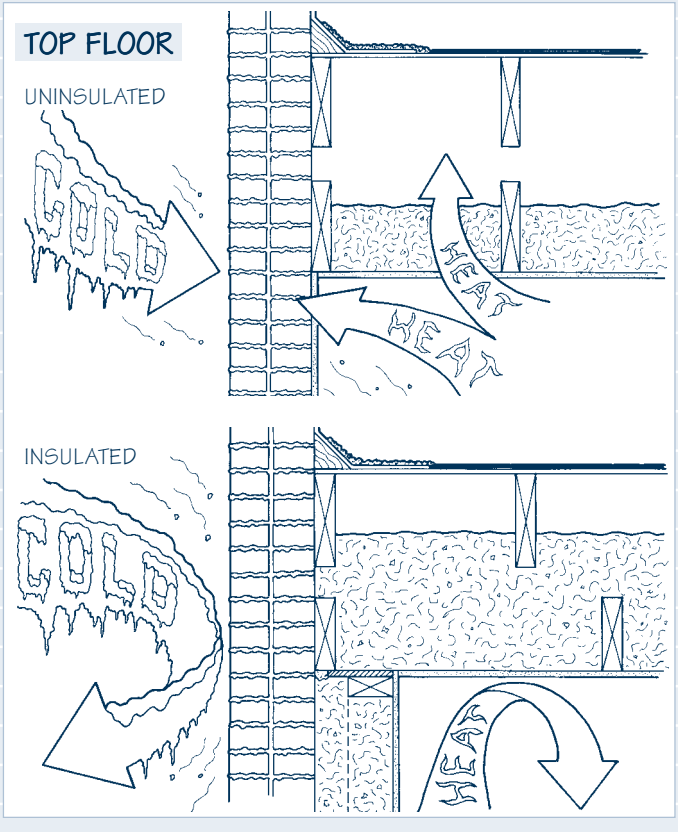


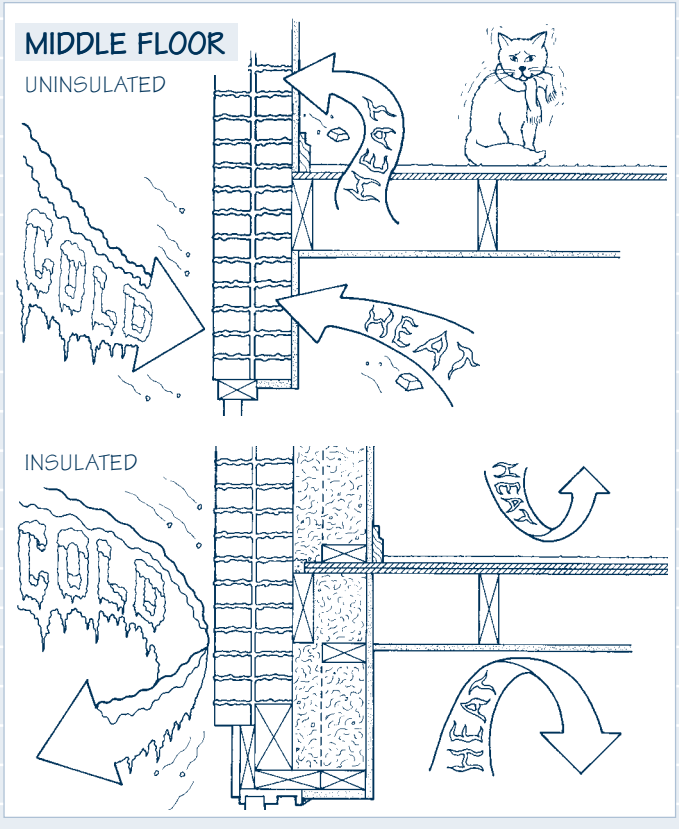
When your building was first built, the brick walls were not insulated. They were finished on the inside with plaster and lath. The bricks and plaster had very little insulating value. They let out the warm air in winter and let in the hot air in summer. But when your building was rehabbed, a **layer of insulation** was added to the brick before the new finish was added.

The insulation is about 5½ inches thick (in some cases, it is even thicker). Insulation is good at keeping heat where you want it. For example, to get the same insulating value as brick walls with 5½ inches of insulation, uninsulated brick walls would have to be about 8 feet thick!

Uninsulated Walls versus Insulated Walls



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COLD
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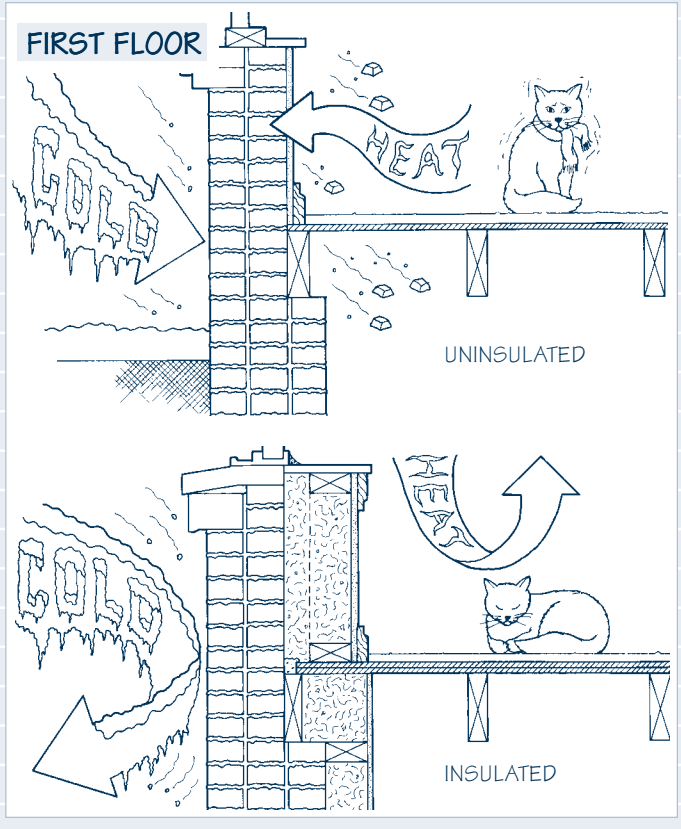
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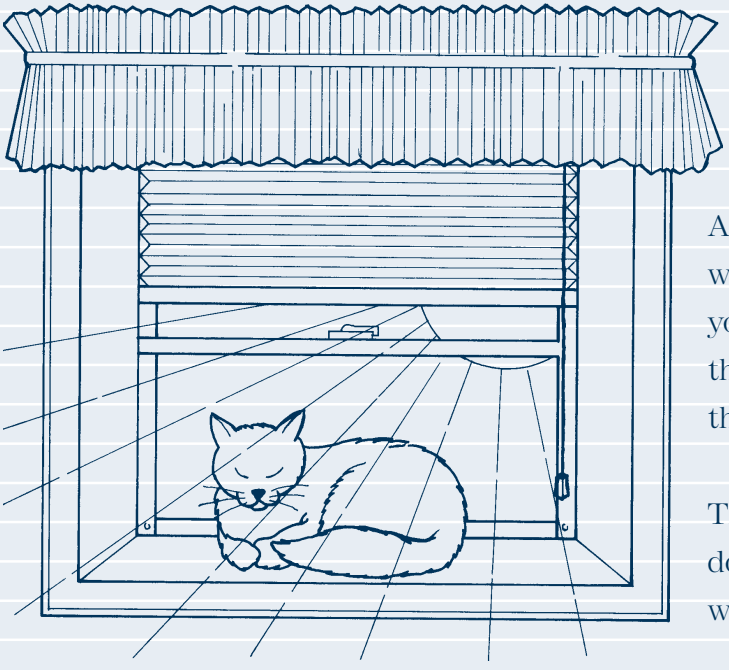


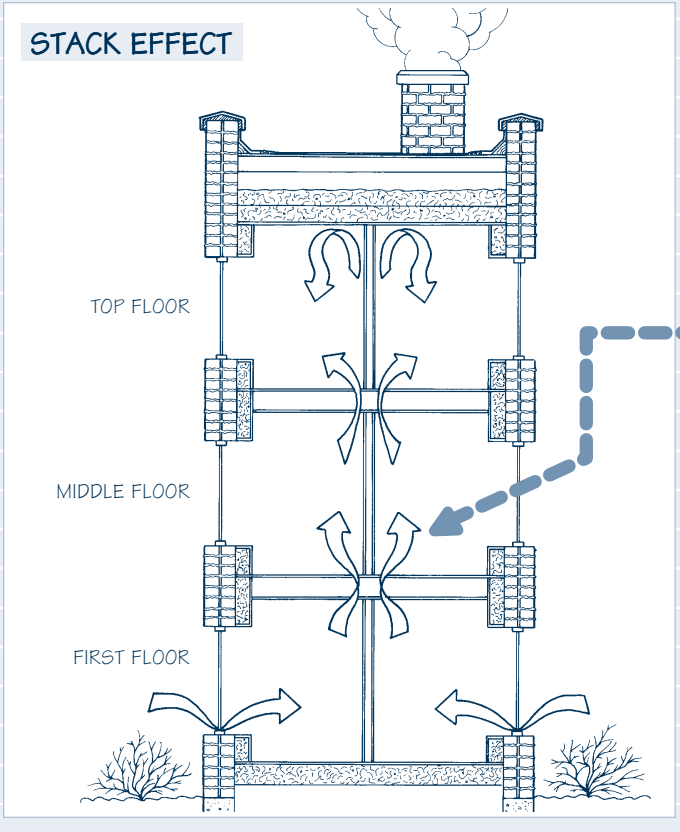
A benefit of your insulated walls is the wide window sills. They might be a nice place to keep your plants. If you have a cat, you might find him there on a sunny day. Or you might want to sit there yourself.

The best thing about insulated walls is that you don't have to do anything to them to make them work for you.

Just enjoy staying warmer in winter and cooler in summer!

Roof, Ceilings, and Floors:

You know that insulating the walls of a building is very important, but so is insulating the top and bottom. **Insulation helps minimize the amount of warm air that rises and escapes—a condition called the stack effect.** (See page 21 in this chapter on *Air Sealing: Why Is My Apartment Less Drafty?* for a more detailed description of the stack effect.)



During your building's rehab, pathways between floors were sealed to minimize the **stack effect**—that is, to stop warm air from rising up through the building.

So, although the stack effect still occurs, it does not occur to the extent that it does in buildings that are not energy-efficient.

I live on the **top floor**. Since warm air rises, will I get too hot?

Have you ever passed by a building in winter and noticed that the windows in the top-floor apartments were open? That's because the stack effect made those apartments very hot. The warm air from the apartments below rose up to the top floor, so the people living there had to open their windows to stay comfortable. But it wastes energy and money to produce lots of heat and then get rid of that heat out the windows.

Since there was plenty of room to add insulation in the ceiling of the top floor in your building, and it was fairly inexpensive to install, a lot of insulation—about 12 to 14 inches thick—was added to keep the heat in your apartment and stop it from leaving through the roof. So, even though work was done in your building to reduce the stack effect, your apartment may still be warmer than the apartments below you. If you are getting too much heat, use the stack effect for your own benefit—to help lower your heating bill.

What If Your Apartment Gets Too Hot?

DON'T open any windows!

If you control your own heat:

- Lower the thermostat. (See page 53 in Chapter 3 on *Where to Set the Thermostat).* The lower you keep the thermostat, the more money you save. Let the stack effect work for you.

If you don't control your own heat:

- Tell the building manager your apartment is too warm and energy is being wasted. The manager might be able to adjust the boiler controls.
- Try turning off some radiators. If one room is really warm, turn off the radiator valve in that room and leave the door open. See if the heat from the other rooms is enough to keep that room warm.

I live on a **middle floor**. Will I be comfortable? Insulation was not added in your ceiling or floor. You don't need it because your neighbors above you and below you probably keep their apartments at about the same temperature as you do. Although you may lose some heat because it rises to the apartment above you, adding insulation to your ceiling would not stop this from happening. Other work was done during rehab to minimize this loss of warm air and keep you comfortable. (See page 21 in this chapter on *Air Sealing: Why Is My Apartment Less Drafty?*)

I live on the **first floor**. Will I be warm enough? Because you have neighbors (in a warm apartment) above you, no insulation was installed in your ceiling. But other work was done to minimize the heat loss to the apartment above you. In buildings with a furnace in the basement, insulation was usually not installed in the basement ceilings. In buildings without a furnace in the basement, insulation was added to the basement ceiling to help keep the first floor warm. In all cases, work was done to minimize the stack effect between your apartment, the basement below you, and the apartment above you.

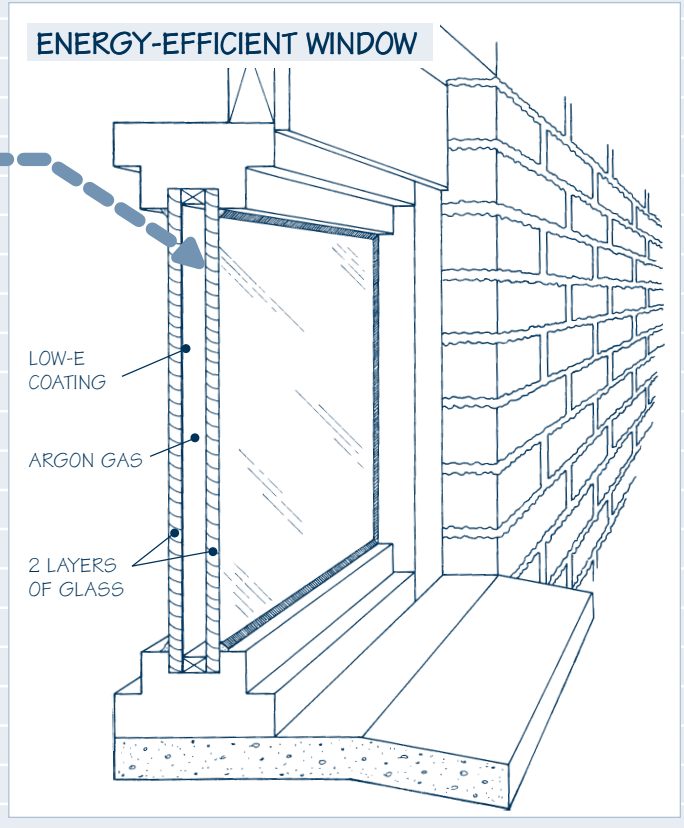
Windows:

What makes them so special?

Your windows were designed to make you more comfortable and lower your heating bills. **They have two layers of glass to hold in heat and save energy.** Because they have two layers, you don't need storm windows. (The job of storm windows is to add a second layer of glass to windows that have only one layer.) So you no longer have to close storm windows each fall and open them each spring.

A special coating called **low-emissive** or **low-E** was added to the glass on your windows to make you more comfortable and save energy.

Sometimes this coating is clear, and you won't notice it. In other cases, the coating is tinted a little and may slightly color the windows. It's like adding a third layer of glass, but without the extra cost and weight.



Some windows have a special gas injected between the two layers of glass in addition to the low-E coating. The gas makes them even more energy efficient.

If the glass in one of your windows should break, it's important that you replace it with glass that has a low-E coating. This type of glass is becoming more and more common and should be easy to find at glass supply stores.

Why don't I feel any drafts around my windows?

Special work was done to seal your windows inside your walls, to keep cold air from blowing into your apartment. You should never need to put plastic sheets over your windows.

There are some things that you can do to make yourself even more comfortable and save more money. Read page 50 in Chapter 3 on *When to Open Your Windows*.

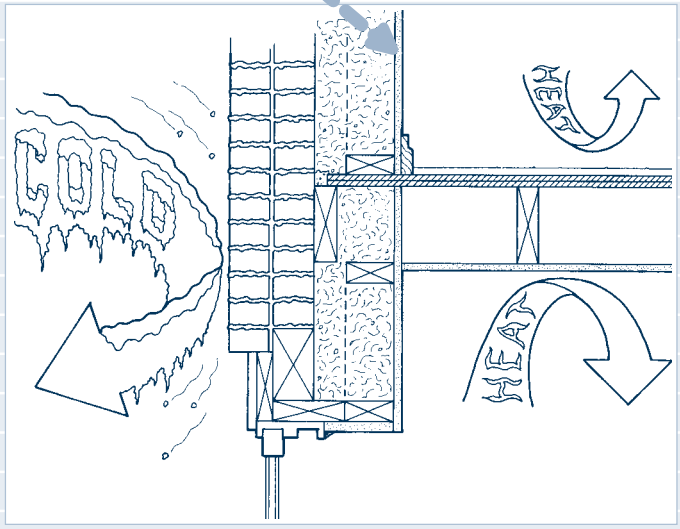
Air Sealing:

Special work that is not usually done when apartment buildings are rehabbed was done to your apartment to keep air from blowing in, out, and through it and to make it less drafty. **This work is called "air sealing." You can't see most of the air sealing work because it's behind the walls, in the floor, and in the ceiling.** A drafty home can be cold and uncomfortable in winter. You may have to heat it more to stay comfortable. If you need more heat, that means you spend more money.

What does **drywall** do?

Air sealing is done to stop cold outside air from getting in and to reduce the stack effect (that is, to keep warm indoor air from rising up in the building between units). The drywall on the exterior walls (the walls that separate the inside from the outside) of your apartment was air-sealed to keep cold air from getting inside. Cracks, holes, and other passageways between floors were sealed to reduce the stack effect.

However, these measures were not intended to totally stop air from getting into your building and moving around in it. We need fresh air in our buildings—just not too much of it.



The exterior walls of your apartment are finished with a material called **drywall**. It replaces the plaster that was once used as a wall finish.

The drywall on the exterior walls of your apartment acts as an air barrier; it keeps cold air from blowing inside through the walls of your home. When new homes are built, the exterior walls are covered with a white or gray plastic wrap. That wrap is an air barrier.

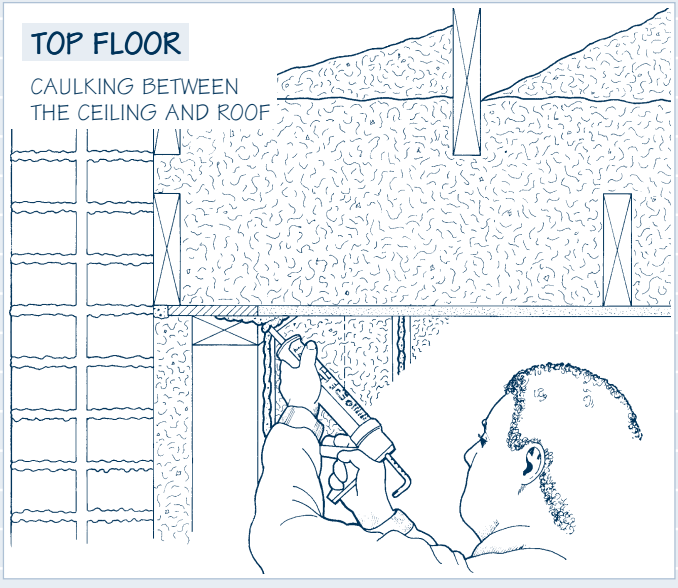
During rehab, however, it's impossible to wrap brick buildings with this material. Drywall is installed instead, to serve both as an air barrier and a wall finish.

An effective air barrier cannot have any holes in it, because holes would allow air to move through it. Work was done to minimize the holes in the drywall on your exterior walls.

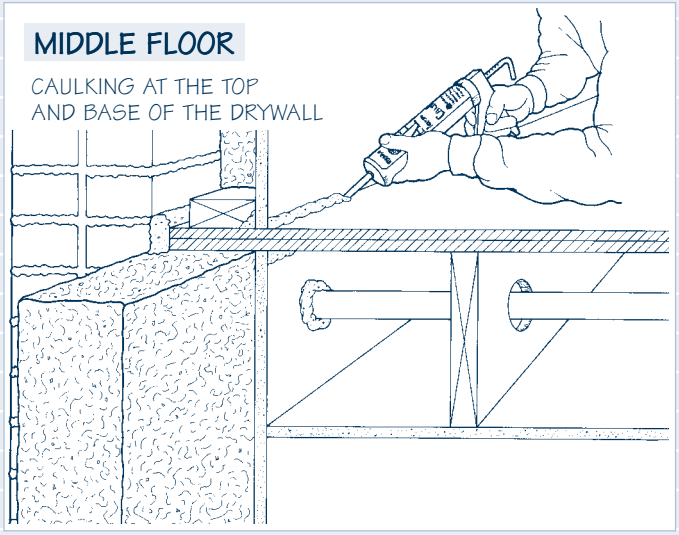
Some methods used to minimize and seal the holes in your drywall are described here.

- **The drywall is continuous from floor to floor,** not from floor to ceiling (which is typical construction practice). This means that the air barrier (drywall) is continuous above your ceiling to the floor of the apartment above you. Installing drywall in this way keeps cold air from blowing through your ceiling and coming out at some other location in the building.

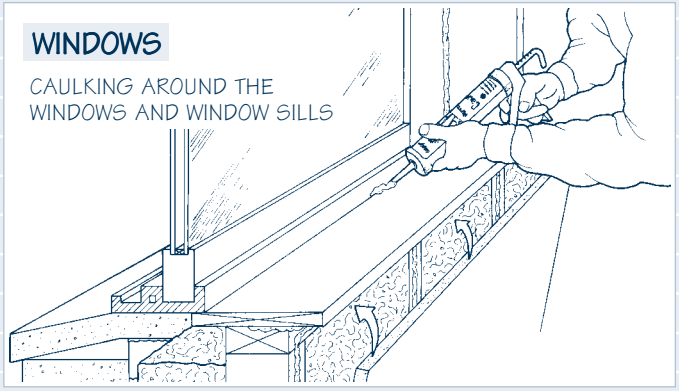
- **Joints between electrical outlet boxes and the drywall were caulked.** In some cases, a special cover plate was installed to reduce air leakage even more.



- On the top floor, the drywall was installed in the typical manner. However, since cold air can get into the roof cavity, **all holes and cracks in the ceiling drywall were sealed to maintain the air barrier.**



- **The base of the drywall was caulked to the floor.** The caulk keeps cold air from getting between the drywall and floor and coming into your apartment. Likewise, **the top of the drywall was also sealed** to keep air from getting into your ceiling.



- **Joints between the drywall and windows were caulked.** Window sills were also caulked to the window frames and to the drywall. This prevents cold air from blowing into your apartment between the window and walls. **Joints between plumbing pipes, gas lines, or exhaust ducts** and the drywall were caulked or sealed with expanding foam if they went through (penetrated) the drywall.

What is the stack effect?

Stack effect means "warm air rises." Warm air weighs less than cool air. Consequently, the warm air rises, and the cooler air moves down.

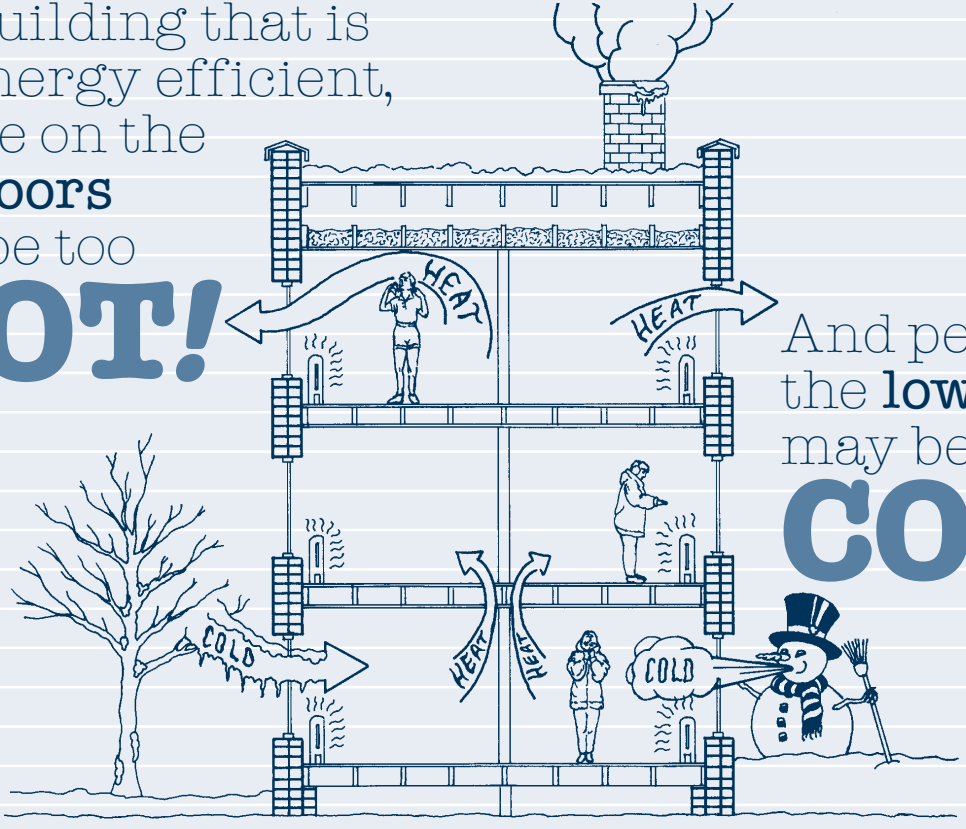
We've all seen the stack effect at work. Smoke rising from birthday candles or a chimney is caused by the stack effect. The smoke is warmer than the air surrounding it and rises above the cooler air.

Why is reducing the stack effect important? In an apartment building, warm air rises from the ground level of the building up to the top floor. The warm air pushes on the ceiling, walls, and windows of the top floor, trying to get out of the building, much like air pushes on the inside of a balloon. If cracks and holes in the top floor's walls and ceilings are not sealed, this warm air escapes. If it escapes, cooler air from outside is drawn in through cracks and holes in the lower floors of the building to replace it.

Thus, in a building that is not energy efficient, people on the top floors may be too hot and people on the lower floors may be too cold because of the stack effect. People on the top floor may even open windows to cool off, making more holes for warm air to escape. This has the effect of drawing more cool air into the building on the lower levels, making the folks downstairs even colder!

In a building that is not energy efficient, people on the **top floors** may be too

HOT!



And people on the **lower floors** may be too

COLD!

If you look under the sinks, you might be able to see the caulk or foam that was used to seal the pipes to the drywall.

How is the stack effect reduced?

In an energy-efficient building, the stack effect is reduced by sealing all the cracks and holes between floors. During your building's rehab, as many of the openings between floors as possible were sealed. These included openings in the floors behind sinks, toilets, and bathtubs (called "plumbing stacks"). They were sealed with expanding foam and other materials. Furthermore, any penetrations through the walls that lead to the plumbing stack were sealed.

In many multifamily buildings, the stairwell from floor to floor is, in effect, a large opening that can contribute a lot to the stack effect. Obviously, this opening between floors cannot be eliminated, so work was done to seal the apartments from the common areas that lead from floor to floor. For example, the door between your apartment and the stairwell was weatherstripped and a door sweep was put at the bottom. These measures help reduce the stack effect by keeping air from moving into and out of the common area.

NOTE------> If your apartment is heated with a furnace, the furnace is usually located with the water heater in a furnace closet in your apartment. However, if you live on the first floor, your furnace might be located in the basement. If your apartment is not heated with a furnace, it is heated with a boiler, and you may skip reading this section.

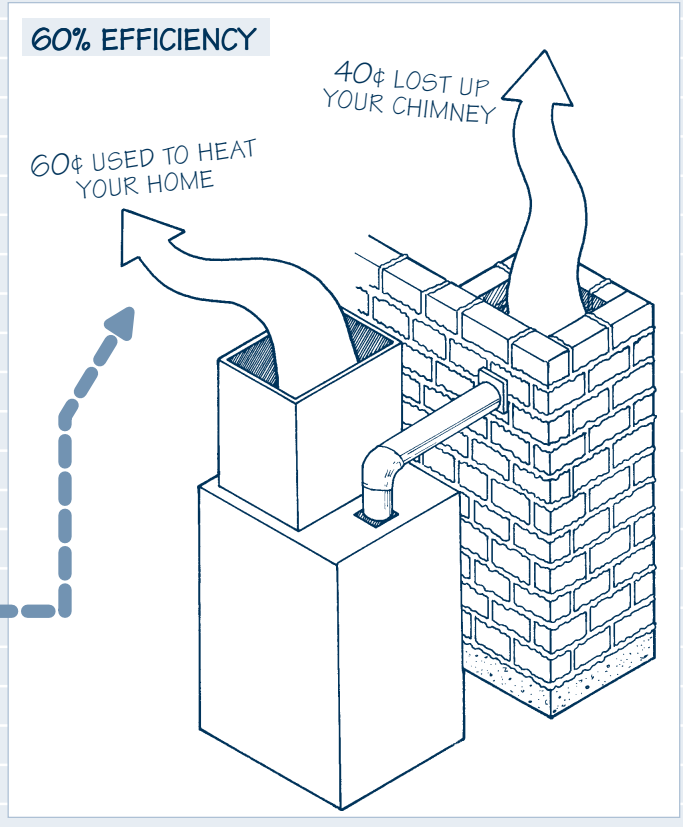
Furnace:

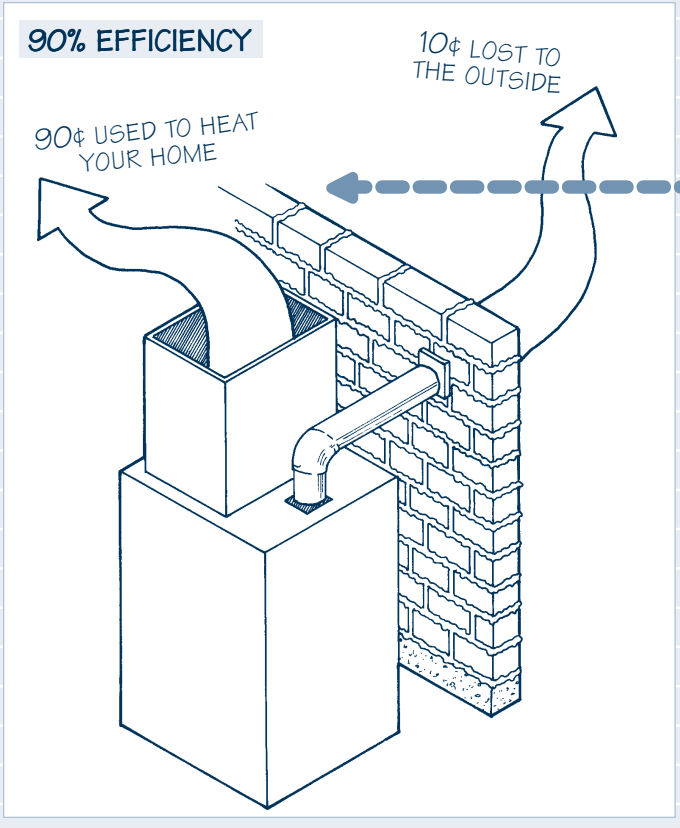
What are its special features?

Your furnace is very energy efficient and safe. The efficiency of a furnace is determined by how well it converts natural gas into the heat used to warm a home. Since most of the heat that is not used to warm a home is lost out the chimney, the more heat that a furnace actually supplies to the home, the more efficient it is. Your furnace is one of the most efficient furnaces available.

To learn what you can do to make sure your furnace runs as efficiently as possible and to keep it running safely and properly, read: *Where to Set the Thermostat* in Chapter 3, *How to Care for Your Furnace* in Chapter 3, and *Furnace Closet: It's Not for Storage* in Chapter 4.

An old furnace might be only **60% efficient.** That means for every dollar spent on heating, 40¢ is lost up the chimney, and 60¢ is used to actually heat the home.





Your furnace is at least **90% efficient.** That means for every dollar you spend for heat, 90¢ is used to warm your apartment.

In addition, your furnace is so efficient that a chimney is not needed. However, the gases that result from burning natural gas still need to be vented to the outside. So the remaining 10 cents is used to vent these combustion gases outside. (Notice the two plastic pipes coming out of the top of your furnace; one is used to vent the gases.) This is a good use for the 10 cents, since combustion gases can be very bad for your health.

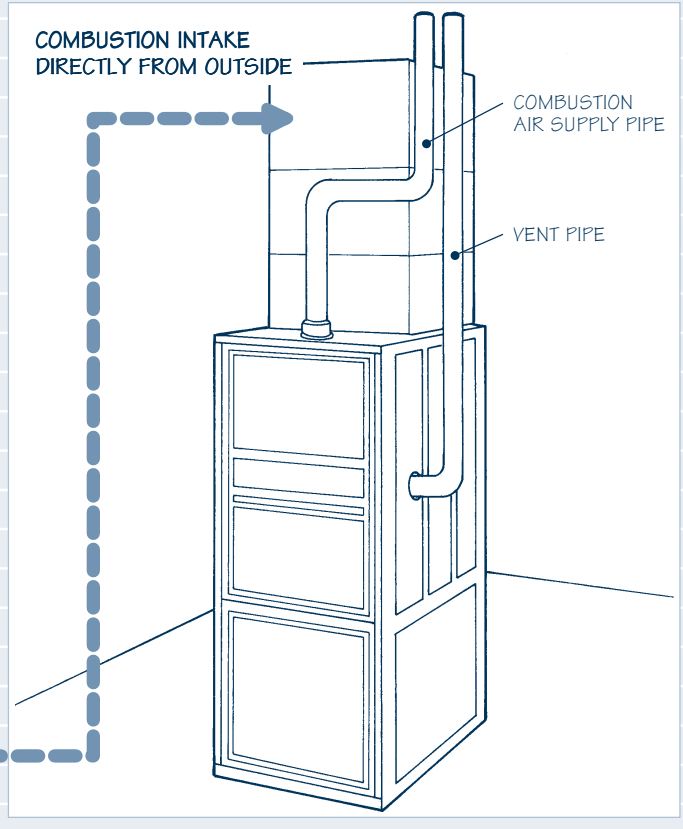
Why does my furnace leak? Oddly enough, water vapor is one of the products that results from burning fuel. This water vapor is a good source of energy, but it is usually vented outside through a chimney. Your furnace is designed to capture that energy and use it to help heat your apartment. Before the water vapor has a chance to leave the furnace, it condenses into water. As it condenses, it gives off heat that is captured and used to help warm the air before it is distributed throughout your apartment.

This water is allowed to run out of the furnace through a plastic tube to a nearby drain. You will probably see water draining through this tube when the furnace is operating. This is normal.

It's important to keep the tube in or near the drain. It's also very important to keep the tube open. Do not clog up the outlet or set items on top of the tube that might stop or restrict the flow of water through it.

How safe is my furnace? Your furnace is one of the safest furnaces available. Furnaces need air (specifically, the oxygen in the air) for combustion. Most furnaces draw that air from inside the home. If a furnace can't get enough combustion air, the indoor air quality can get very unhealthy.

However, your furnace gets all of the air it needs for combustion directly from the outside. Thus, a potentially unsafe condition is avoided.



Moreover, when a furnace draws air from inside a home, more air is actually pulled into the home through cracks and holes around windows, doors, and walls. This can make the home feel drafty, and it wastes energy. When a furnace draws air directly from the outside instead, these drafts are eliminated and energy is saved.

The second plastic pipe that comes out of the top of the furnace is open to the outside. It connects the combustion chamber of the furnace to the exterior. All the air that the furnace needs for combustion is drawn into the furnace through this pipe.

You may be able to see the opening of this pipe on the outside of the building. It is very important that it remain open and free of clutter. Should the opening become blocked, preventing the supply of air to the furnace, the furnace will automatically shut off.

You need to know how to take care of your furnace. Please read the **owner's manual** supplied by the manufacturer and keep it in a safe place where it won't be lost. Follow all of its instructions on using and maintaining the furnace. If you have questions or can't find the manual, please contact the **building manager**.

NOTE------> If you have a furnace in your apartment, you probably also have a water heater next to it. If you do not have a water heater in your apartment, that probably means your building has a central water heater that supplies hot water for all the apartments. You may skip reading this section. However, if you live in a first-floor apartment, your furnace and water heater may be in the basement. Please check.

Water Heater:

How does it work?

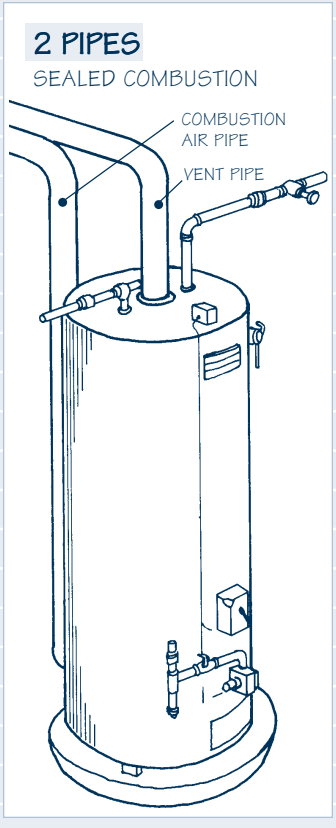
A water heater is simply a large tank that constantly maintains water at a temperature you set.

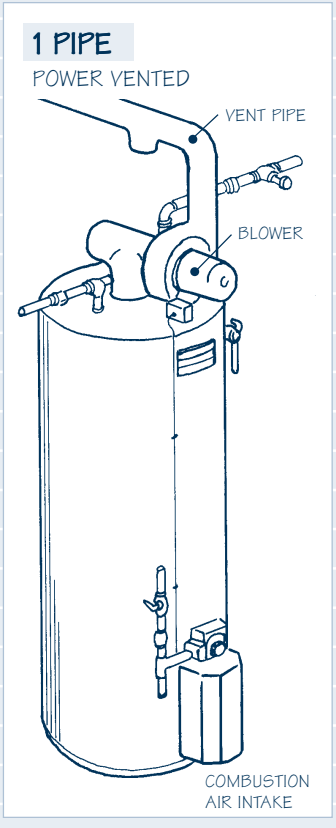
A typical water heater vents combustion gases by means of the stack effect; in other words, it lets warm combustion gases rise and get released through a chimney. (Page 21 in Chapter 2 on *Air Sealing: Why Is My Apartment Less Drafty?* explains the stack effect.)

Since your apartment is less drafty because it was air sealed, there may not be enough air to allow the stack effect to work. As a result, you might think that combustion gases from the water heater could spill back into your apartment, causing the air inside your apartment to be unhealthy. However, your water heater does not let this happen because it uses "positive ventilation" (or good air flow). Positive ventilation can be achieved in one of two ways.

One type of water heater achieves positive ventilation through **sealed combustion**.

A sealed-combustion water heater is like the furnace described in the previous section: it draws all the air it needs for combustion and ventilation from outside the building rather than from inside. If your water heater has two white or gray plastic pipes on top, it is a sealed-combustion water heater. One pipe brings in air for combustion, and the other pipe vents combustion gases outside.





The other type of water heater is called a **power-vented** water heater. It has one pipe on top, with a small blower near it. To achieve positive ventilation, the blower pushes the combustion gases out of the building through the vent. Even though this water heater uses indoor air for combustion, the blower vents all the combustion gases outside. The power-vented water heater does not rely on the stack effect to do the job.

There are a couple of things you can do to assure safe operation of your water heater.

- If the doors to the furnace closet have louvers or grills, **be sure that these openings remain open.** Do not cover them with tape or cloth, and do not set boxes or other items in front of them.

- If your water heater has a blower, you may hear it when the water heater is operating. This noise is normal; **do not disconnect the blower.**

The following sections in this booklet have more information about using your water heater: *How to Make the Most of Your Water Heater* in Chapter 3 and *The Furnace Closet: It's Not for Storage* in Chapter 4.

→ To learn how to use and care for your water heater, please find the **owner's manual** and review it. If you have questions or cannot find the manual, please contact the **building manager.**

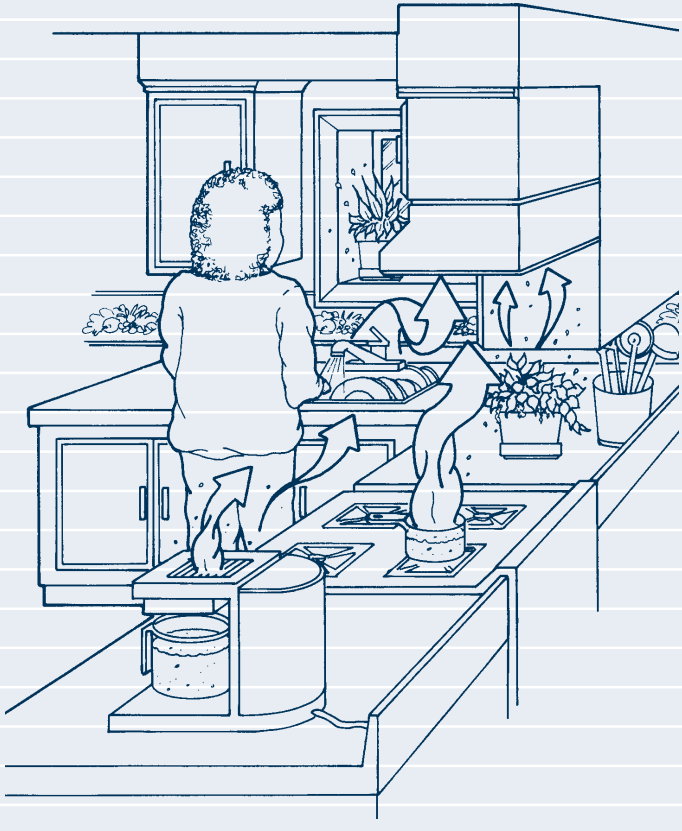
Exhaust Fans:

You have exhaust fans in your bathroom and kitchen. The bathroom exhaust fan may be connected to the light switch, so whenever the light is turned on, the fan is turned on, too. The kitchen exhaust fan is probably right above the stove, and the switch to operate the fan is probably nearby. **These fans were installed to help get excess moisture out of your apartment.** Too much moisture in a building—especially an energy-efficient building—is not healthy.

Too much moisture can lead to mold and mildew, which lower the quality of the air inside your apartment. Mold and mildew can also rot window sills and stain wall finishes. It's especially important to get rid of moisture in energy-efficient buildings, because they are less drafty and there's less chance for moist air to escape.

Exhaust fans can also be used to help get rid of odors in your apartment. For example, if people are smoking, the fans can help vent the smoke.

Why are the fans in the kitchen and bathroom? The sources of most of the moisture in a home are usually found in the bathroom and kitchen.



The bathroom exhaust fan should be turned on whenever someone is bathing or showering, and, if possible, it should be left running for about 15 minutes after the person is done. The kitchen exhaust fan should be turned on whenever someone is boiling a liquid or doing any cooking that produces moisture.

Some other sources of moisture include the following:

- People (the average person gives off about 5 pounds of moisture per day),
- Plants (plants can give off about 1 pound of moisture per day),
- Washing dishes, making coffee, and washing and drying clothes.

How can I tell if there is too much moisture in my apartment?

If you find drops of water on the windows, there is too much moisture inside that room. Run the exhaust fans to help vent the moisture, even if no one is showering or cooking. Opening a window just a little can also help. It is common for the moisture level in apartments to be high during the first winter following building rehab. The building may still be "drying out" within the first year after the rehab is finished.

In an energy-efficient building, even in the winter when it is dry, you will probably not need to run a humidifier. If you do anyway, and you see drops of water form on the windows, be sure to turn off the humidifier; it is not necessary.

Don't the fans waste energy?

The fans exhaust warm indoor air along with the moisture, and they use electricity in the process. However, the amount of energy needed to operate the fans is actually quite small. Let's look at an example.

Assume that you operate both the bathroom and kitchen fan for 2 hours each day during the winter. Your heating bill will go up by about 37 cents per day, and your electric bill will go up by about 8 cents per day. In other words, you will pay only 45 cents a day (or about $65 per winter) for cleaner indoor air. Since you're already saving between $300 and $700 a year on your heating bill, this expense is minor, and the benefits outweigh it. Please use the fans.

Fluorescent Lighting:

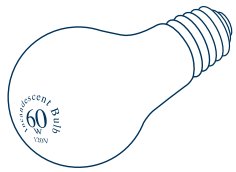
Why do some of my light bulbs look different?

Some of your light fixtures have fluorescent bulbs instead of the standard incandescent bulbs.

Lights that flicker for a few seconds when you turn them on are fluorescent. When fluorescent lights are on, it's hard to tell the difference between them and incandescent lights, unless you can see the bulbs. Fluorescent and incandescent bulbs look very different.

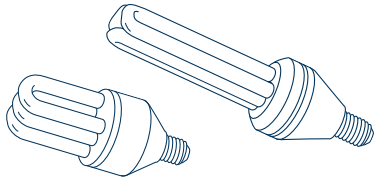
CONVENTIONAL

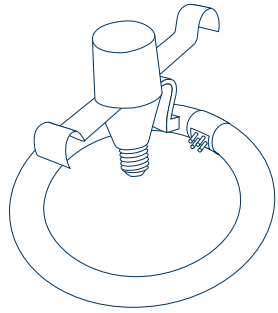
INCANDESCENT BULBS

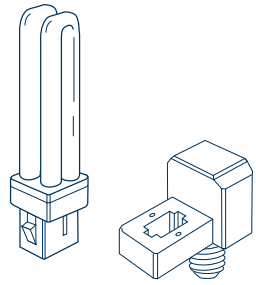


ENERGY EFFICIENT

FLUORESCENT BULBS







Are fluorescent bulbs more efficient?

Yes. Fluorescent lights are more energy efficient than incandescent lights. Fluorescent bulbs use less electricity to give you the same amount of light. In some cases, they use four to five times less. Fluorescent lighting was installed in rooms that are used often, like bathrooms, kitchens, and hallways. The more time a fluorescent light is on, the more energy you save. Let's look at an example.

A 13-watt fluorescent bulb and a 60-watt incandescent bulb provide the same amount of light. However, if the 60-watt bulb was on for 4 hours a day for an entire year, the cost for electricity would be $8.76. If the 13-watt fluorescent bulb was on instead, the cost would be $1.90. The yearly savings would be $6.86. The savings would be even more if the light was on longer.

How long do fluorescent bulbs last? Another advantage of fluorescent bulbs is that they don't burn out as fast as incandescent bulbs. Fluorescent lamps last about 10,000 hours (that's close to 7 years if the light is on 4 hours a day, every day of the year). Incandescent bulbs burn out after about only 2,000 hours (less than $1^1/_2$ years) under the same conditions. You would have to replace the incandescent bulb five times before the fluorescent lamp would burn out. Fluorescent bulbs save you money because you don't need to replace them as often.

Fluorescent bulbs should be replaced with fluorescent bulbs. Fluorescent bulbs can be found at hardware stores, home convenience stores, and electrical supply companies. Even though fluorescent bulbs cost more than incandescent bulbs, the payback is very quick. It's even faster when you consider that you won't have to buy as many incandescent bulbs.

If some of the lamps you use often have incandescent light bulbs, consider replacing them with fluorescent bulbs. This will further increase your energy savings.

To get the same light output, replace your incandescent bulb with the corresponding fluorescent bulbs shown in the table.

 **Fluorescent Bulbs**	 **Incandescent Bulbs**
5 WATTS	25 WATTS
7 WATTS	40 WATTS
13 WATTS	60 WATTS
18 WATTS	75 WATTS
27 WATTS	100 WATTS
32 WATTS	150 WATTS

3 What **YOU Can Do** to Save Even More on Your Energy Bills

The building you live in has features that save energy.

All of the energy-efficient measures installed in your building will help you save money on your energy bills. For the most part, these measures work by themselves to save energy. However, **YOU can also do some things yourself to maximize your savings.**

It's up to **YOU** to save more!

You may be able to change your lifestyle in ways that would affect your energy use. For example, during the winter, you could keep the thermostat set at a lower temperature during the day. You could turn it down even lower at night or when no one is home. You could avoid opening the windows if it gets too warm in your apartment. Such decisions will determine just how much money you save.

This section discusses these and other things that you should or shouldn't do to increase your energy savings. It focuses on your windows, thermostat, furnace, and water heater.

When to Open Your Windows

The simple actions described here could save you additional dollars on your energy bills. They will also make you more comfortable.

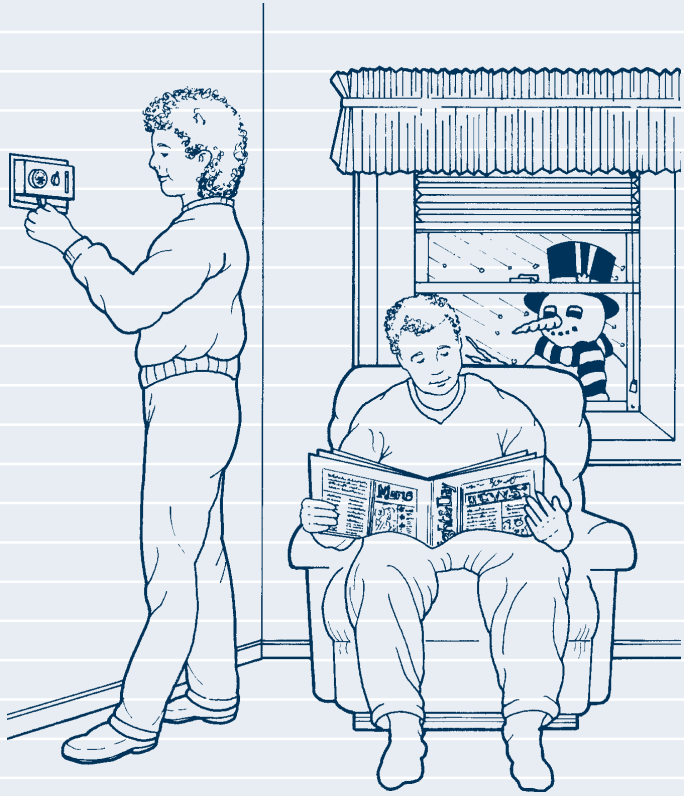
During the winter:

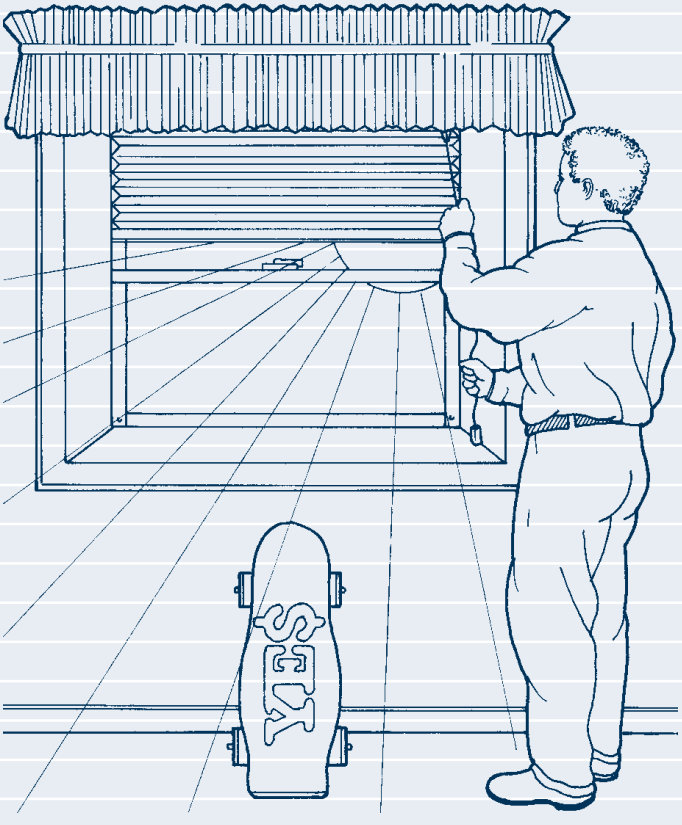
- **Do not open your windows if it gets too hot** in your apartment. This wastes energy and money. When you open a window, you lose heat that you already paid for. In addition, the furnace will pump out even more heat until the window is closed or the thermostat is turned down.

- If you have a furnace in your apartment, **turn down the thermostat.** (Read page 53 in this chapter on *Where to Set the Thermostat.*)

- If your building is heated with a central boiler, you could **close the radiator valves** in the rooms that are too warm. You could also notify the building manager that your apartment is too warm. The manager may be able to adjust the boiler controls to lower your apartment temperature.

- **On sunny days, take advantage of the free heat.** Open blinds, shades, and curtains, especially if your windows face south, to help keep your apartment warm. Then simply turn down the thermostat or close the radiator valves to keep from getting too hot. **At night, close the blinds, shades, and curtains** to help keep heat in your apartment rather than allowing it to escape through the window.





During the summer:

- During the day, to keep heat out of your apartment, **keep window shades or blinds down and closed.** It's even helpful to keep the windows themselves closed to keep hot air from blowing into your apartment. In the evening and early in the morning, **open windows to allow cooler air in.**

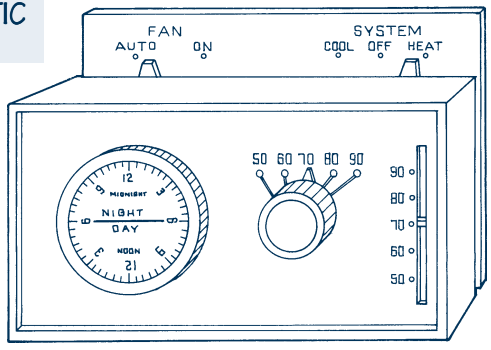
NOTE ------→ If you don't have your own furnace, you probably don't have a thermostat to set your own heat. You can skip reading this section.

Where to Set the Thermostat

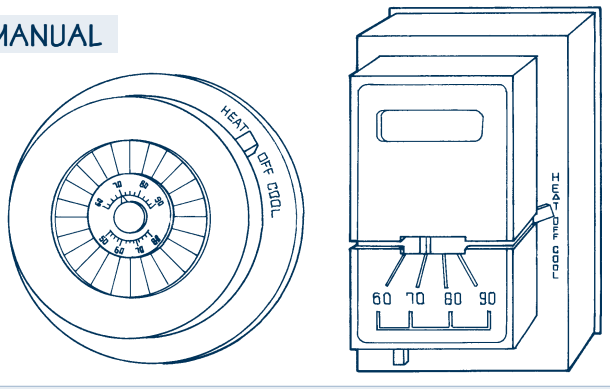
This section explains where to set the thermostat so your furnace will work efficiently and you are as comfortable as possible.

The thermostat is a small rectangular or circular device mounted on the wall, probably in your living room or hallway. It **controls the furnace.** You set the thermostat to maintain a certain temperature in your apartment. If you like your apartment at 70°F during the winter, set the thermostat at 70. If you like your apartment at 75°F, set it at 75. The thermostat then turns the furnace on and off to maintain that temperature.

AUTOMATIC SETBACK



MANUAL



There are two types of thermostats:

An **automatic setback** thermostat automatically lowers the temperature setting at night and raises it in the morning before you get up. You set the time when you want the temperature to be lowered and raised.

Find the **owner's brochure** for your thermostat. It will describe how to set the temperature settings. If you can't find the brochure, ask the **building manager** for a copy or for help in setting the thermostat.

Some thermostats are **manual**. You must adjust the temperature setting down at night and back up in the morning yourself. The energy you save from setting the thermostat down at night is the same as when an automatic setback thermostat is used—you just have to remember to adjust the thermostat yourself.

Remember that the temperature at which you set the thermostat will affect your energy savings.

The **higher** you set the temperature, the LESS your savings will be.

The **lower** you set the temperature, the MORE your savings will be.

Thermostats should be set no higher than 72°F during the day and evening when people are home.

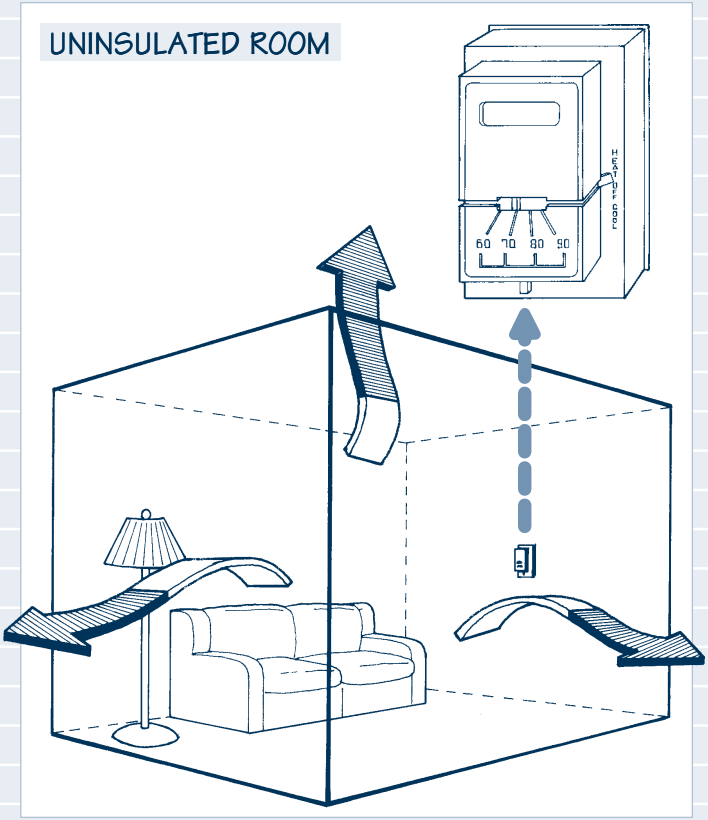
During each 24-hour period, **you will save about 3% on your heating bill for every 1° that you lower the thermostat setting.** For example, if you normally keep your thermostat set at 75°F all the time, and you lower it by 3° to 72°F, you will save about 9% (3 × 3%) on your heating bill. In other words, you will save about 9 cents for every dollar you spend on heating costs.

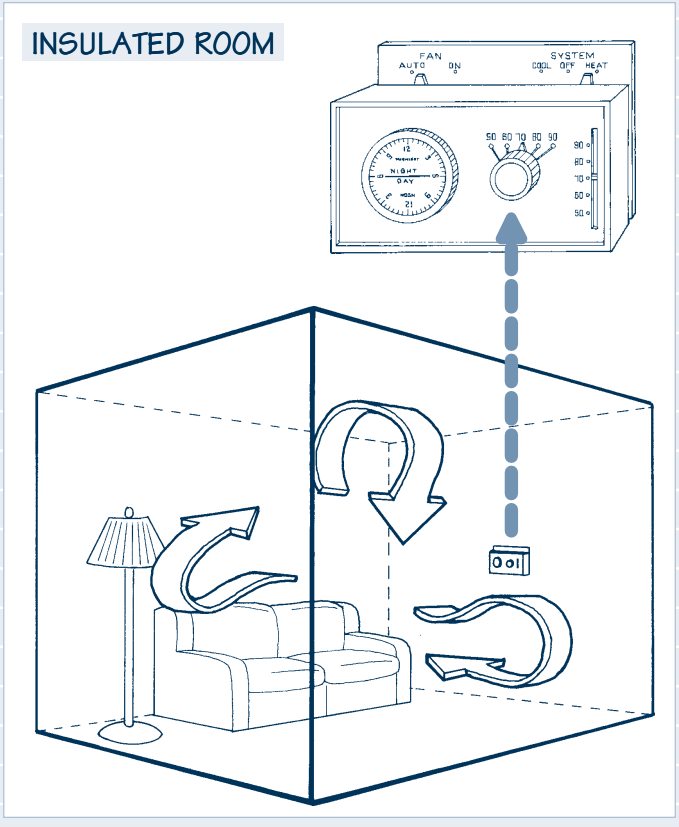
You may want to lower the thermostat setting below 72°F at night or during the day when people are not home. Some people turn their thermostats down to 60° or 55°F degrees at night. The lower you set back your thermostat, the greater your savings will be.

For the 8-hour period at night when you're sleeping, **you will save an extra 1% on your heating bill for every 1° you set back the thermostat.** For example, if you lower your thermostat from 72° to 65°F at night, you will save another 7 cents for every heating dollar you spend.

You may have lived in an older building where you had to set your thermostat **higher than 72°F** to stay comfortable. Chances are that the apartments in that building were **not energy efficient**.

There was probably no insulation in the walls, and the windows were probably in poor condition. So much heat was being lost through the walls, ceilings, and windows that you had to turn up the thermostat to stay warm.





Now you live in an energy-efficient apartment that was rehabbed to keep heat inside during the winter. The walls and roof are insulated and the windows are new. More heat is trapped inside the rooms, even at a lower thermostat setting.

You should be able to keep the thermostat **set at 70°F** and still be comfortable and save money on your heating bills.

Here's another tip:

Have you ever been to a party at someone's home during the winter, and it's gotten so warm that people open windows to stay comfortable? That's because people generate heat. If you have a group of people in your apartment, **let the heat they give off help keep your apartment warm.** Turn down your thermostat and save some money. Turn the thermostat back up when they leave.

Here's a last word of advice:

If you feel that there is a problem with the furnace and you can't stay warm, **do not use the stove for additional heat**; it is dangerous. See page 76 in Chapter 4 on *Kitchen Stove: The Do's and Don'ts*.

Remember, control heat with the thermostat, not by opening your windows to get cooler or by turning on your stove to get warmer. If you still have trouble staying comfortable in your apartment, contact the building manager. There may be a problem with the furnace or boiler.

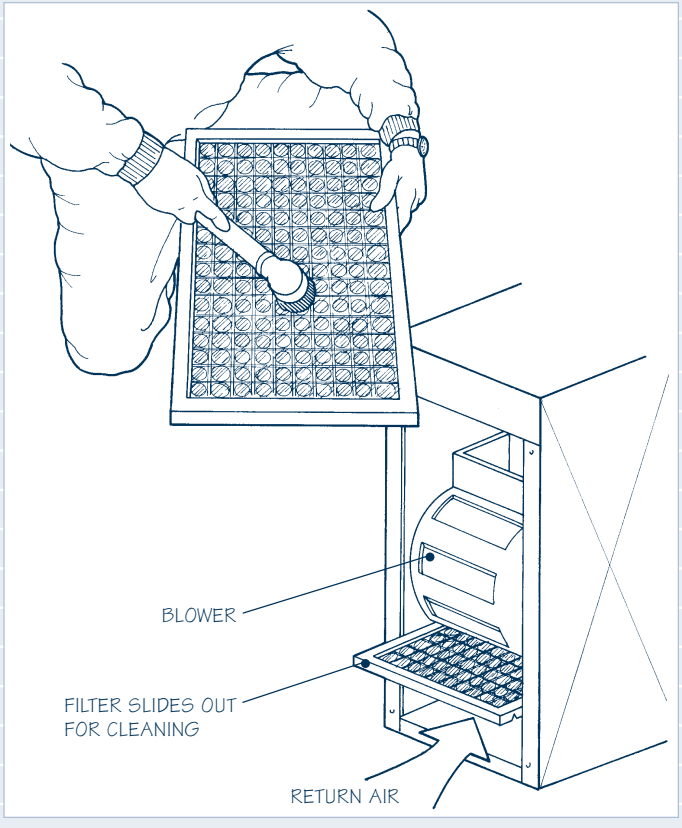
NOTE------→ If you have your own furnace, it will probably be in your apartment (but it may be in the basement if you live on the first floor). If you do not have a furnace in your apartment, that means your building is heated by a central boiler, and you may skip reading this section.

How to Care for Your Furnace

Your furnace is very energy efficient and safe. The features that make it that way are discussed on page 30 in Chapter 2 on *Furnace: What Are Its Special Features?*.

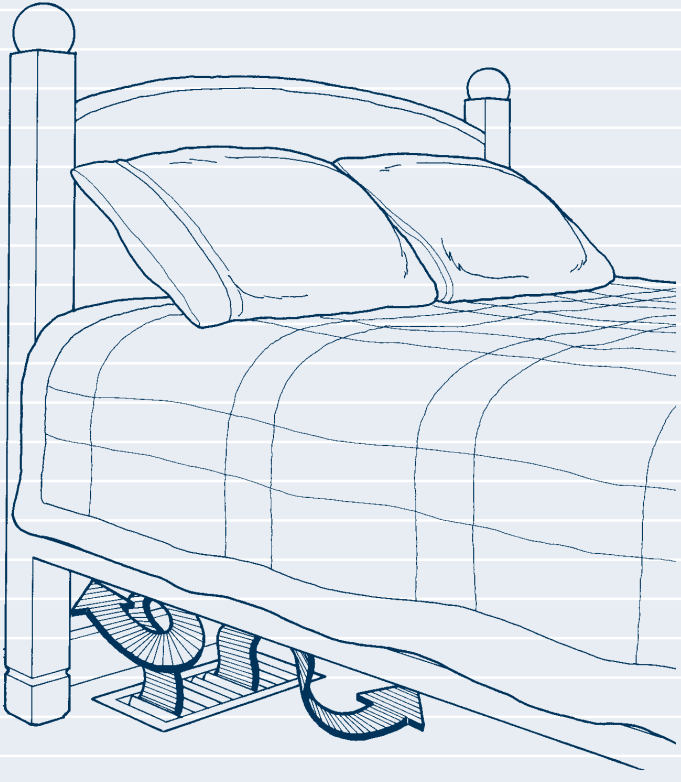
To keep your furnace working as efficiently as possible, here are some things you can do:

- Make sure that the plastic tube that carries water out of the furnace is kept open and near an unclogged drain. **Do not block the plastic tube** that draws outside air into the top of the furnace.



- **Clean your furnace filter each month and replace it when necessary.** If the furnace can't push enough warm air because the filter is blocked with dirt, you may feel cold. Besides saving energy, a clean filter will help keep your apartment cleaner. Instructions on how to clean the filter should be listed on the furnace or in the owner's manual.

Read the **owner's manual** before you use your furnace the first time. If you can't find the manual, ask the **building manager** for a copy. The manual will give you key information on how to take care of the furnace and keep it in top condition.



- **Keep the duct registers clean.** Dust and lint may accumulate on the registers over time. Like dirty filters, dirty registers lower the efficiency of the furnace. Registers may be vacuumed or wiped with a damp rag.

- **Keep furniture, curtains, and other obstacles away from heating registers.** For example, placing a bed, sofa, or dresser over or in front of a register prevents warm air from circulating throughout the room. The room will be less comfortable as a result.

- **Have your furnace inspected and cleaned each year** by a qualified heating contractor. The contractor will check that the furnace is operating safely and efficiently. You will have to pay for this service, but it's a good investment to ensure that your furnace continues to operate at peak performance. A properly operating furnace means continued savings on your energy bills.

  Heating contractors frequently have "summer specials" for furnace inspections and cleanings. It's usually cheaper to have the furnace inspected during the summer. It can be unpleasant to wait until the first cold day of winter and discover that your furnace is not working properly. Also, check with the building manager to see if you can hire a "preferred" heating contractor. This heating contractor may be one who has a good reputation with the building manager or who has offered the manager a reduced price for inspecting all the furnaces in the building.

See page 78 in Chapter 4 on *Furnace Closet: It's Not for Storage* to learn about keeping the area around your furnace safe. See page 53 in Chapter 3 on *Where to Set Your Thermostat* for information on how to set the temperature in your apartment so your furnace will work efficiently to keep you comfortable.

NOTE------→ If you have a water heater, it is probably located in the furnace closet next to the furnace (but it may be in the basement if you live on the first floor). If you do not have a water heater in your apartment, your building has a central water heater that supplies hot water for all the apartments, and you may skip reading this section.

How to Make the Most of Your Water Heater

This section describes how to operate your water heater as efficiently as possible. Key features of the water heater are described on page 36 in Chapter 2 on *Water Heater: How Does It Work?*.

The water heater is simply a large tank of water that is constantly maintained at the temperature you have set. It **supplies hot water for bathing and dishwashing.** In a home, the water heater can account for as much as 25% of total energy usage. It is second only to the furnace in energy consumption.

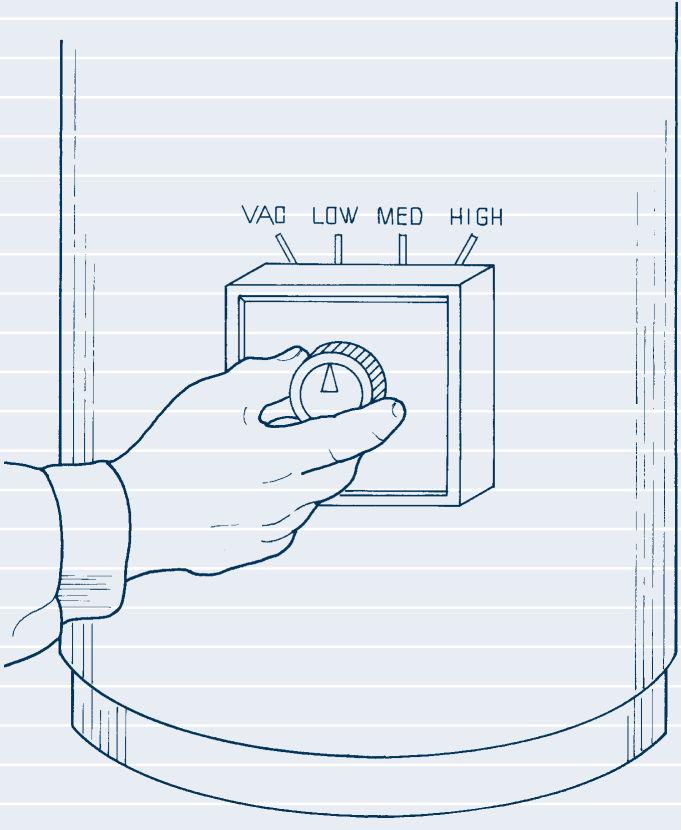
The reason the water heater accounts for so much energy use is because it maintains the water in the tank at a constant temperature. Even if you use hot water only in the morning and evening, heat is being lost from the shell of the tank all the time. That happens because the heater keeps reheating the water to the temperature setting (found near the base of the water heater) so you will have hot water when you want it. Therefore, by lowering the temperature setting, you can significantly affect your energy bill.

Here are some things you can do if the temperature settings on your water heater are VACATION, LOW, MEDIUM, and HIGH.

- You can save about $25 a year for each person in your apartment by **keeping the setting at MEDIUM rather than HIGH.**

- **If you leave for vacation, turn the water heater setting down to VACATION.** There's no sense in reheating the same water over and over again if you're not going to be there to use it.

- **If you've been comfortable with the water temperature set at MEDIUM, try LOW for a while.** You'll gain even greater savings. However, if you have a dishwasher, check the owner's manual first to find out if the LOW setting is acceptable. The LOW setting is usually about 110°F. Some dishwasher models require a water temperature of 130° to 140°F to clean dishes.

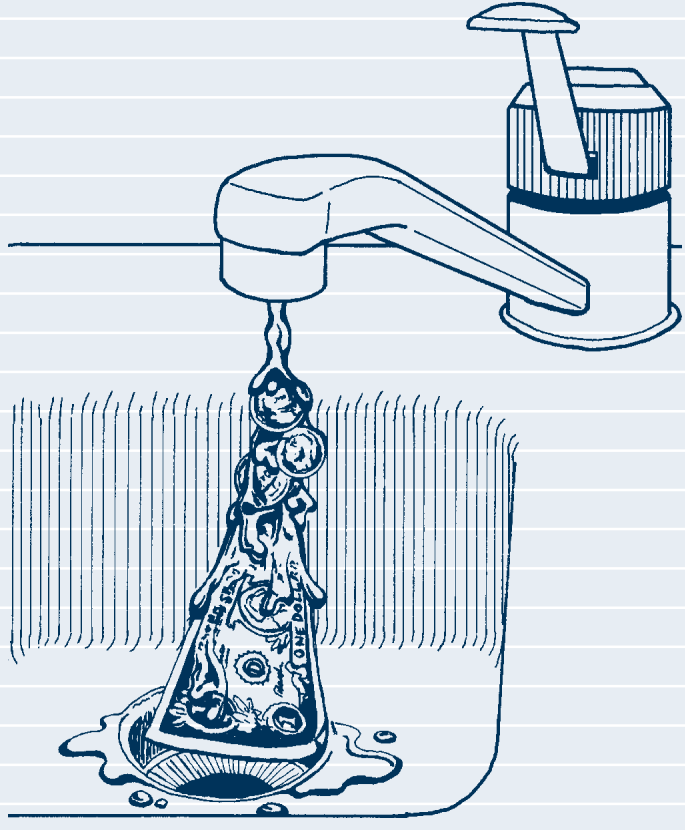


You should also read the **owner's manual** to learn how to use and maintain the water heater so it will work most efficiently. If you have questions or cannot find the manual, please contact the **building manager**.

- Even though heat is continually being lost from the shell of the tank, **the water heater manufacturer usually does not recommend additional insulation** (such as a water heater "jacket"). Please refer to the water heater owner's manual for additional information.

- **If the doors to the furnace closet have louvers or grills, keep them open;** do not cover or set anything in front of them.

- **Notify the building manager if any of your faucets leak.** One drop a second can waste up to 48 gallons of water a week! If it's a hot water faucet that is leaking, you're literally sending your energy dollars down the drain.



4 Keeping Safe, Healthy, and Comfortable

The features described in this book not only make a home more **energy-efficient** → they can make it more **comfortable** and **healthier** too, with **cleaner** indoor air!

You should be warm in the winter without having to spend a lot of money for heat because of the insulation that was installed, the air sealing measures that were taken, and the energy-efficient windows that were put in your building. The next section in this chapter on *Improved Comfort from Built-in Features* explains why.

However, YOU still need to do certain things to ensure that your apartment continues to be safe, healthy, and comfortable. Bathroom and kitchen exhaust fans were included in the rehab of your apartment to vent moisture. Read page 73 in this chapter on *Exhaust Fans: Their Proper Use* to understand why and when the fans are to be used.

It is never a good idea to use the kitchen stove to help heat your apartment. Besides creating a fire hazard, the combustion gases produced by the stove can make people sick and, in some cases, even cause death. Read page 76 in this chapter on *Kitchen Stove: The Do's and Don'ts* for more information.

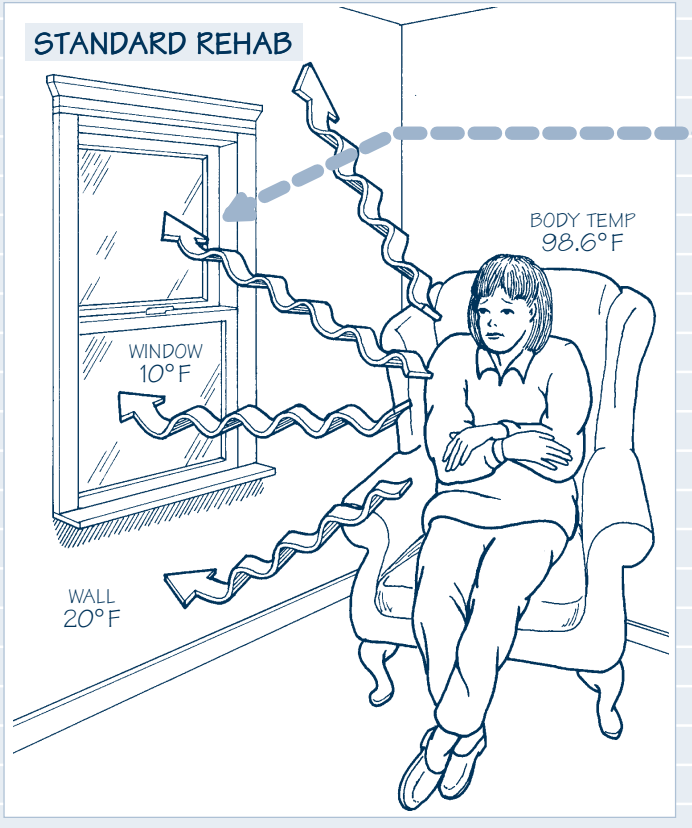
Finally, you may have a furnace located in what is commonly called a "furnace closet." The water heater may also be located in this closet. Even though it is called a closet, it is not a closet for storage. Storing items in the furnace closet may create a fire hazard. Read page 78 in this chapter on *Furnace Closet: It's Not for Storage* for more information on this important subject.

Improved Comfort from Built-in Features

Besides saving you money, an energy-efficient apartment is more comfortable. Two main reasons are that your windows and walls were designed to keep in heat, and air sealing was done to cut down air movement (drafts).

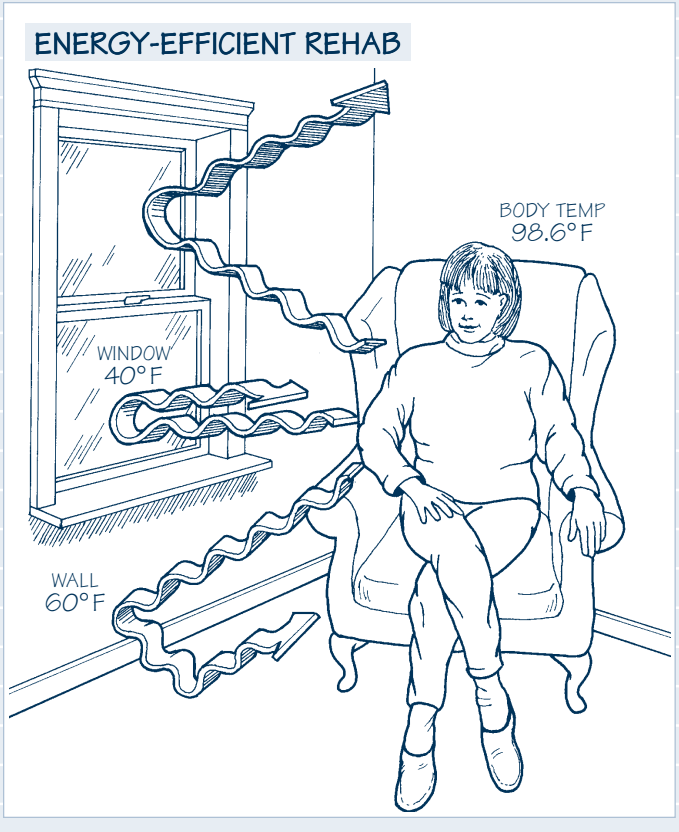
Keeping Warm

Warm air always moves from hotter to colder areas. During winter, heat inside our homes moves outside because the temperature in our homes is warmer than the air temperature outside. On very cold days, we can lose a lot of heat. We don't lose as much on milder days. A similar heat flow occurs from our bodies.



Since our bodies are warmer than the window surface, they **radiate** heat to that window. (Radiation is also the process by which the sun heats the earth—heat from the sun radiates to the earth.)

Our body temperature is normally around 98°F. During winter, the temperature on the surface of a poorly insulated window may be close to that of the cold air outside. We will feel uncomfortable if we sit by the window. We may even mistakenly think that the window is drafty when it is not. Instead, its surface temperature is so much lower than our body temperature that our bodies are radiating heat to the window. This can also happen if we sit next to an uninsulated wall.



In an energy-efficient building, the insulation added to the walls and windows makes their surface temperatures closer to room air temperature. Our bodies will thus radiate less heat to these surfaces, and as a result, we will feel more comfortable.

Reducing Drafts

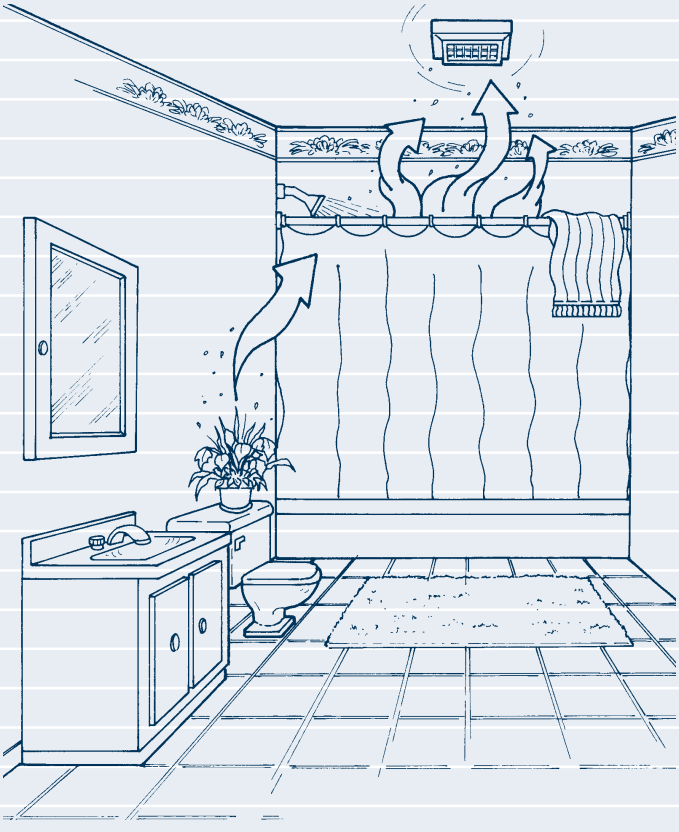
During rehab, a number of air sealing measures were installed to make your apartment less drafty. (Read page 21 in Chapter 2 on *Air Sealing: Why Is My Apartment Less Drafty?*) Also, your windows were sealed to the wall to keep outside air from getting into your apartment from around the window frames.

Exhaust Fans: Their Proper Use

Exhaust fans make an important contribution to the energy efficiency of your apartment. Page 40 in Chapter 2 on *Exhaust Fans: Why Do I Need Them?* explains why they were installed.

Why Fans Help

Exhaust fans were installed in your bathroom and kitchen. The fans vent air from inside the rooms to outside the building. A key component of the energy efficiency work done on your building was air sealing. (See page 21 in Chapter 2 on *Air Sealing: Why Is My Apartment Less Drafty?* for a description.) Your apartment was sealed to make it less drafty and more comfortable and to save you money on your energy bills.



However, because your apartment is less drafty, the inside air may become too moist, particularly when people are showering or cooking. Since there is no air movement or wind to flush moist air out and bring fresh air in to your apartment, exhaust fans are needed to vent moisture out of your apartment.

We generally think of moisture as a good thing during the winter. Dry air doesn't feel good, is not good for our health, and causes static electricity when we touch things. However, too much moisture can also be a problem. It can lead to the growth of mold and mildew, which can cause health problems. It can also cause water to condense on windows and rot window sills.

When Fans Help

Since it is so easy to generate a lot of moisture in an energy-efficient building, **this moisture should be vented as soon as it's produced.** You should run the bathroom fan when someone is showering or bathing and leave it run for about 15 minutes after the person is done. The kitchen exhaust fan should be used when someone is boiling a liquid or doing any cooking that produces moisture.

The fans should also be operated **whenever you begin to see water forming on windows.** That's a clear sign that there is too much moisture in the apartment. Open a window to vent the moisture if the fans can't do the job.

The fans can also be used to help vent cigarette smoke and other odors in your apartment.

Kitchen Stove:
The Do's and Don'ts

Your kitchen stove should be used only for preparing food. Never, under any circumstances, use the stove to help keep your apartment warm. If you're having trouble staying warm, please contact the building manager.

The Do's

Your stove uses either natural gas or electricity to operate. You have to pay for this energy. Here are some tips to help you save money while you're cooking.

- If you have three dishes to be cooked in the oven at slightly different temperatures (325°, 350°, and 375°F, for example), **do pick the average temperature** (350°F in this example) to cook all three dishes.

- **Do use pots and pans that fit the burners.** Pans that fit a burner absorb more of the energy, reducing the amount of heat that is lost. **Do keep oven and burners clean.** A clean oven uses energy more efficiently.

- **Do use the broiler when possible.** The broiler uses less energy, and preheating is not required.

- **Do use the kitchen exhaust fan** when cooking.

The Don'ts

- **Don't peek.** Every time you open the oven door to look at the food, the oven temperature is lowered by 25° to 75°F. Use a timer if your oven does not have a glass door.

- **Don't preheat the oven if the food requires more than one hour** of cooking time.

- **Don't use the oven to help heat your apartment.** Besides causing a fire hazard, using the oven for space heating can cause an indoor air quality problem. The fumes given off by the flames over an extended period of time can make a person sick. In fact, if you're cooking for an extended period of time, it's a good idea to use the kitchen exhaust fan or open windows to vent the fumes.

- **Don't forget to turn off the oven** when you're finished cooking.

Furnace Closet:
It's Not for Storage

If you have a furnace in your apartment, it's usually located in a small room called the "furnace closet." But this is not a closet that you can use for storage.

Nothing but the furnace and water heater should be in the furnace closet. Usually furnace closets are so small that even the furnace and water heater barely fit in them. However, if there is more space in your furnace closet, **do not store other items in it!** This is a very serious fire hazard.

Although the furnace and water heater are safe appliances, they are also combustion appliances: they use fire to generate heat. They can get very warm and could start any items that are stored or have fallen too close (under, next to, or on top of them) on fire.

There is an exception. Some furnace closets have been specially designed to store other items. You will know if you have this type of closet because it will have shelves, racks, or rods. In this case, you may use the furnace closet for storage, but **you still should NOT store any items near the furnace or water heater!**

5 Appliances

Most of the items discussed in the previous sections will help you save money on your gas bill. However, we have not forgotten about your electric bill.

In most cases, tenants pay their own electric bills, even if the building owner pays the heating bill. We've already discussed the lights and exhaust fans in your apartment. You probably also own other items that use electricity and cost you money. Some of these appliances are discussed in this section.

Refrigerator

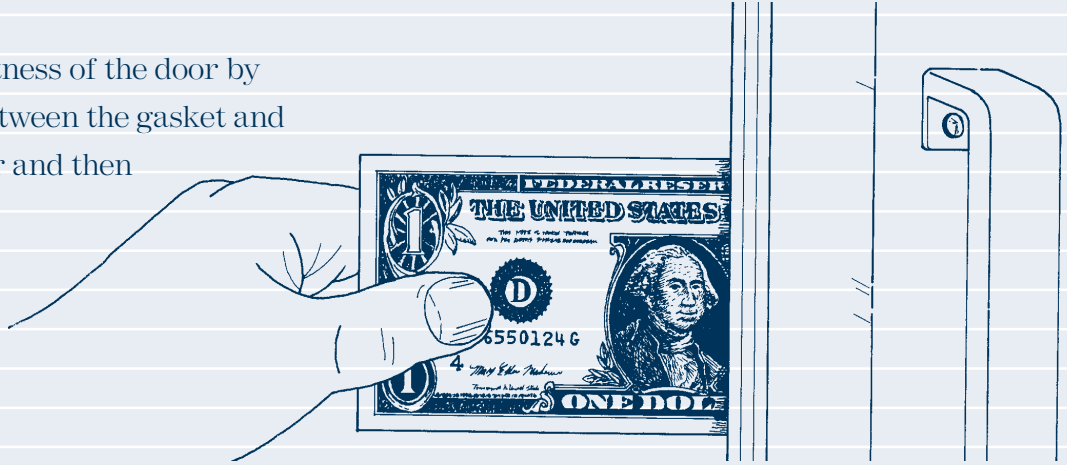
Your refrigerator probably uses more electricity than most of the other appliances in your apartment. Here are some TIPS on how to cut down on its energy use and save money.

- Temperatures in the refrigerator and freezer compartment are controlled by thermostats inside the refrigerator. **Do not set the thermostats lower than necessary.** Refer to the refrigerator owner's manual for correct settings. The refrigerator temperature should be set between 36° and 42°F. The freezer compartment temperature should generally be set between -5° and +6°F. Overcooling your refrigerator or freezer wastes energy and money.

- **Check the gasket** (the soft plastic piece that seals the door to the body of the refrigerator) every so often **for gaps and improper fit.** The door should close firmly against the gasket. If it doesn't, cold air will leak out of the refrigerator.

You can check the tightness of the door by placing a dollar bill between the gasket and the door. Close the door and then pull out the dollar.

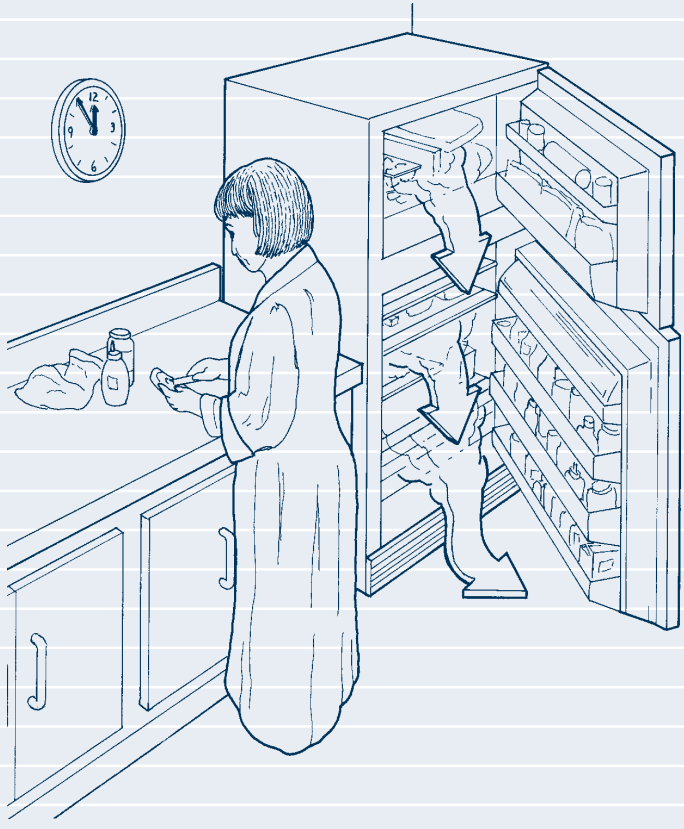
You should feel a slight "drag" when you pull it out. If you don't (or if the dollar just falls out when you let go of it), the gasket may be worn and should be replaced. Contact the building manager about having the gasket adjusted or replaced.



- **Let food cool** before putting it in the refrigerator so the refrigerator does not use energy unnecessarily.

- **Clean the coils located on the back of the refrigerator once a year.** Most refrigerators will easily slide away from the wall for cleaning. Unplug the refrigerator before cleaning the coils. Use a vacuum cleaner or a soft brush. See the refrigerator owner's manual for further information.

- And finally, **try to keep the door open no longer than necessary** when looking for that midnight snack. Be sure to close the door when you're through.



Dishwasher

If you have a dishwasher, here are some TIPS on how to save energy while using it.

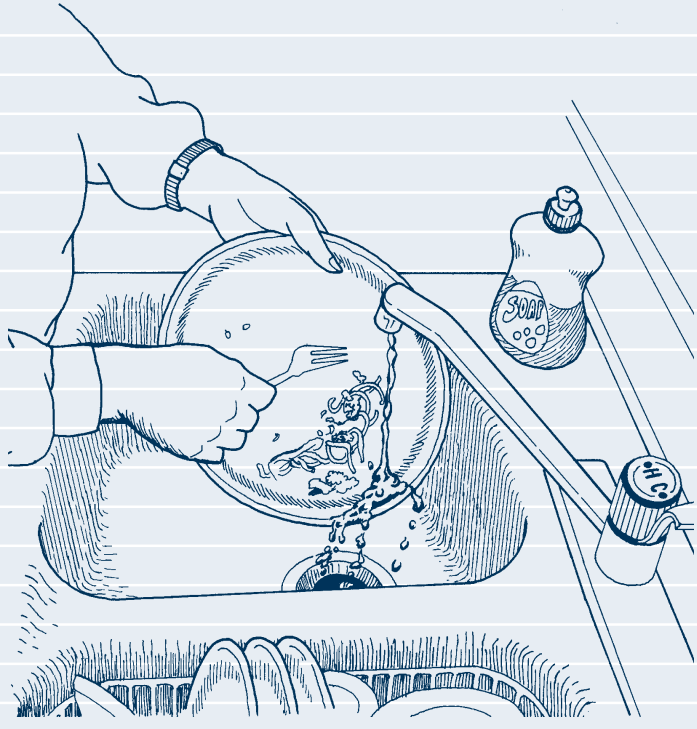
- Run the dishwasher **only when it is fully loaded.** If necessary, scrape dirty dishes and store them in the dishwasher until you have a full load.

- Be sure to **load the dishes in their proper locations.** See the dishwasher owner's manual for instructions on proper loading.

- **Scrape dirty dishes with cold water** rather than hot.

- **Check and clean the dishwasher drain as necessary.** Solid pieces of food waste can build up over the dishwasher drain.

- Check the owner's manual to learn about **special energy-saving features** that your dishwasher may have. Use these features whenever possible to save money. Many dishwashers have energy-saving settings, such as a setting for partial loads (which use less hot water) or energy-efficient drying cycles.



Washing Machine and Dryer

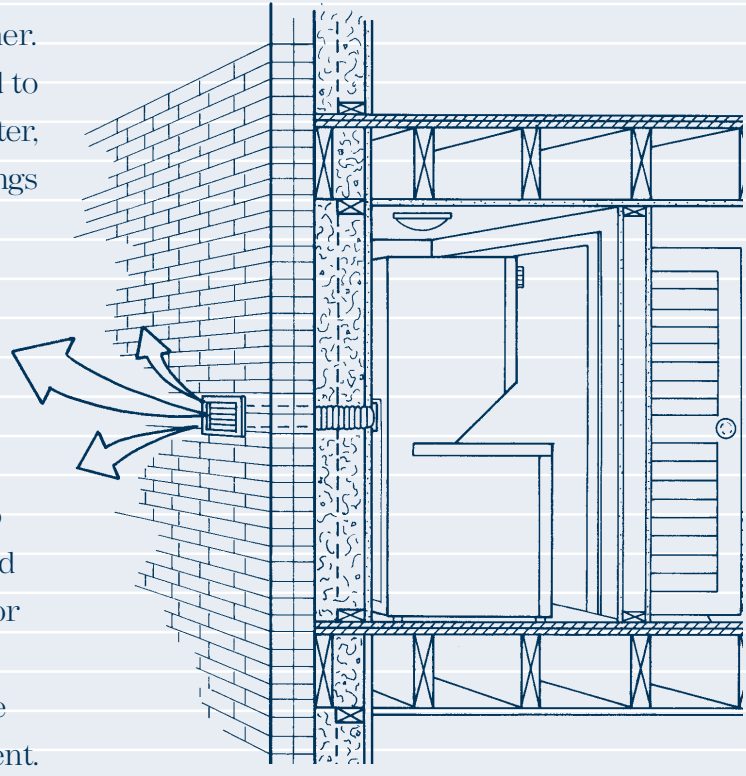
If you have a washing machine and dryer, here are some TIPS on how to save energy while using them.

- The major cost associated with washing clothes is the cost for the energy needed to warm the water. To save money, **use hot water only for very dirty clothes.** Most clothes can be washed in either warm or cold water. Refer to the washing instructions on the clothing labels or washing machine.

- **Doing full loads of laundry in the washer** saves both energy and water. Sort and organize your laundry so that you will be doing full loads.

- However, be careful **not to overload** the washer. Your clothes may not get fully clean and need to be washed again. This is a waste of energy, water, and time. Many washing machines have settings for smaller loads that save energy and water.

- If your clothes dryer is located in your apartment, it is vented outside. **Do not redirect this vent to the inside of your apartment.** It may seem like a good idea to capture all that heat that is being vented outside and use it to help heat your apartment. However, this could cause a serious problem with regard to indoor air quality. There is a lot of moisture in the dryer exhaust, and excess moisture can cause health and comfort problems in your apartment.



Read page 73 in Chapter 4 on *Exhaust Fans: Their Proper Use* for more information about excess moisture.

- **Be sure to clean the lint** from the dryer's filter after every load. The efficiency of the dryer goes down when lint collects over the dryer filter.

- Operate the dryer like the washer. **Don't overload** it; overloading uses excess energy because the items take longer to dry.

- Group similar types of fabrics together before drying them (for example, put towels in one load and shirts in another). A **lower dryer temperature** may be used for certain clothes. See the owner's manual for the dryer for additional information.

NOTE ------→ Please read this section before you buy an air conditioner. An efficient air conditioner can save you lots of money on your electric bill.

Window Air Conditioner

Chances are that your apartment does not come with air conditioning. So, at some point, you may decide to buy a window air conditioner. Two features are important to consider when you are choosing one: its efficiency and its size.

Just like furnaces and water heaters, air conditioners have an **energy efficiency rating—EER** for short. An air conditioner with a higher EER is more efficient and uses less electricity than one with a lower EER. Buy an air conditioner with an EER of at least 10. Although air conditioners with EERs higher than 10 usually cost more, you will recapture this cost by using less electricity, because they produce more cooling per unit of electricity.

The bottom line is that even though you pay more money when you buy a higher-EER air conditioner, you save more money when you use it. The EER should be stamped on the air conditioner. Ask the sales-person for help if you can't find it.

Here are some TIPS you can follow to help your air conditioner operate more efficiently.

- To ensure that you're buying an energy-efficient air conditioner, **look for the "Energy Star" label on the unit.** Air conditioners with this label are at least 15% more efficient than required by minimum federal regulations.

- **Avoid buying a used air conditioner** from a friend or at a yard sale. Although it may appear to be a good deal, it may be an older model that is inefficient. The money you save on the purchase price might quickly be cancelled out by higher electric costs.

- It's important to **buy the correct size air conditioner** (in terms of how much cooling it produces, not its dimensions). If the air conditioner is too small, it won't cool the room(s) that you want to keep cool. If the air conditioner is too large, it won't operate efficiently. If it doesn't operate efficiently, it will use more energy and cost you more money. Again, ask the salesperson for help in choosing the correct size air conditioner.

- Window air conditioners have filters. **Remove and clean the filter every month** to help save money and keep the air in your home cleaner.

- **Make sure the "fresh air" vent on the air conditioner is closed** so you're not cooling outside air.

- If possible, **put the air conditioner in a window that faces north or is shaded.** Keeping the air conditioner out of direct sunlight improves its efficiency. Remove and store the air conditioner during the winter rather than keeping it in the window.

6 Let's Wrap It Up

You Live in a **Special Apartment**

Energy-efficient features were installed during your building's rehab to help keep you comfortable and keep your energy costs down. This booklet was designed to help you understand these features and why your apartment is so special.

Most of this **special energy work** is not included in typical building rehabs.

It includes:

- Wall and roof insulation to keep in heat,
- Specially coated windows,
- Sealing measures to cut down air movement (drafts),
- High-efficiency furnaces and water heaters, and
- Fluorescent lights.

If you don't think that this work is special, show this booklet to some of your friends who live in a recently rehabbed building. **Ask them if this work was done in their building.** Chances are, **their answer will be "no."**

What If Your Gas Bill Is **Higher Than Your Neighbor's?**

You may compare your fuel bills with those of your neighbor and discover that yours are higher—sometimes, quite a bit higher. Yet you live in the same building, and the special energy work was done for every apartment. Now what do you do?

There are two things to consider.

First, do you live in a larger apartment? Large apartments have more space and require more energy to heat. (Remember though, that your apartment would cost at least twice as much to heat if the special energy work was not included.)

Second, how do you live in your apartment? What choices do you make? For example, where do you set your thermostat? Is it set higher than 72°F when you are home? Do you set it lower at night or when no one is home? In the winter, do you open your windows when you get too warm instead of turning down the thermostat?

If you feel that your fuel bills are higher than they should be, please review Chapter 3 on *What You Can Do to Save Even More on Your Energy Bills* for information on these and other lifestyle issues that affect the size of your energy bill.

YOU Can Help Keep Your **Energy Bills Low**

By reading this booklet, you should understand how the energy-efficient features of your building make it special. Without any effort on your part, these features can easily help you save the equivalent of one month's rent each year.

This booklet also gives you information on what you can do to increase your energy savings without sacrificing your comfort, either in winter or in summer. By using the features wisely, you might be able to save up to two month's worth of rent on your energy bills.

It's up to you to maximize
Your Energy Savings

YE$!

Your Energy Savings
Top 10 TIPS

TIP 1 Don't use the stove to heat your apartment. Combustion gases could hurt you. Ask the building manager to check the furnace.

TIP 2 Don't open windows to cool your apartment in winter. Turn down the thermostat or turn off a radiator.

TIP 3 Set your thermostat lower when you're not home and at night when you're sleeping.

TIP 4 Keep duct registers clean and clear; don't block them. Have your furnace checked each year to make sure it's operating properly.

TIP 5 Change or clean your furance filter once a month.

TIP 6 Set your water heater at the lowest setting that will meet your needs.

TIP 7 Run fans when someone is cooking or showering to get rid of excess moisture.

TIP 8 Don't store things in the furnace closet. They could catch on fire.

TIP 9 Use fluorescent lights instead of standard incandescent light bulbs.

TIP 10 Set the refrigerator and freezer thermostats at the appropriate temperatures, clean the coils, make sure there is 2 to 3 inches of space between the coils and wall, and make sure the doors seal properly when closed.

7 Additional Resources

You can contact the following sources for additional information on energy-efficient housing:

U.S. Department of Energy
Energy Efficiency and Renewable Energy Network
http://www.eren.doe.gov

Residential Team
http://www.eren.doe.gov/buildings/residential/

Energy Efficiency and Renewable Energy Clearinghouse
Phone: (800) 363-3732

Chicago Rehab Network
Phone: (312) 663-3936

Affordable Energy Home Center
Phone: (773) 638-6524
http://buildings.dis.anl.gov/aehcenter/

Illinois Department of Commerce and Community Affairs
Energy Efficient Affordable Housing Program
Phone: (217) 785-2373
http://www.commerce.state.il.us/

ComEd
Renaissance Illinois
Phone: (630) 684-3751
http://www.ceco.com

Web:

This handbook is available on the **World Wide Web** at the following URLs:

http://www.eren.doe.gov/buildings/residential/mwhndbk.htm

http://buildings.dis.anl.gov/eber/mwhndbk.htm

Existing Buildings Efficiency Research
Argonne National Laboratory
Phone: (630) 252-8688
http://buildings.dis.anl.gov/eber.html

Wisconsin Energy Bureau
Phone: (608) 266-8234
http://www.doa.state.wi.us/deir/boe.htm

Energy Center of Wisconsin
Phone: (608) 238-4601
http://www.ecw.org/

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March 1998

Your Energy Savings YE$!

U.S. Dept. of Energy
Illinois Dept. of Commerce and Community Affairs
Chicago Rehab Network
Bickerdike Redevelopment Corp.
ComEd
Argonne National Laboratory