

A Guide for Renting and Creating Lower Cost Energy Efficient Apartments and Homes

Nearly all renters pay their own energy bills, but few have options relating to the efficiency and quality of the heating and cooling systems, appliances, and windows of their rental. However, there are many steps renters can take to save and manage energy. Just because you don't own your home doesn't mean comfort, energy and cost savings cannot be achieved.

 Energy spending per square foot in rented apartments can run 76 percent higher than in owner-occupied single family homes.¹

 **Looking for a rental property?** A few key indicators can help you assess the efficiency of the rental. Below is information on “**What to Look For**”, and a checklist of features to investigate “**Before You Sign**” when touring a potential new home or apartment. The checklist will assist you in understanding the amount of energy you may use and ultimately pay for.

 **Looking to cut energy bills in your current rental?** It's natural to think that it's not worthwhile to invest in energy efficiency improvements if you don't own your home. However, there are steps you can take that pay off within a year or two and improvements that you can also bring with you to your next home. Use the “Simple Low-Cost and No-Cost Measures” and “Utility Program Offerings” sections at the end of this guide to reduce your bills quickly.

What to Ask and Look for Before Renting

Saving money and energy can be easy if you know what to look for. Thoroughly investigate the many energy use aspects of a potential rental before you sign a lease.



¹ September 2014 issue of the journal Building Research & Information.
<http://uanews.org/story/renters-spend-less-on-housing-but-more-on-energy-ua-study-finds>

1. Utility Information



Before signing a lease, ask the building owner which utilities you will be responsible for – e.g. electric, water, oil, and gas (natural/propane). Ask about the cost for each. Everyone will have different utility bills based on individual consumption, but generally in the summer electric bills may be higher due to running an air conditioner. In the winter gas or oil, bills may be higher because of heating.



Utilities often offer budget billing; the utility averages the different seasons (winter-heating/summer-cooling) costs across twelve months. This will help you budget and eliminate high cost bills.



Ask if the building has any energy ratings, labels, or certifications such as ENERGY STAR® Certification, a Home Energy Score, or a HERS Index Rating. These can help illustrate the energy efficiency of a building compared to other similar buildings.

2. Metering



It is important to know if your apartment is individually metered or master metered. When a unit is individually metered, the owner usually requests that you put the utilities in your own name. Master metering, which is more common in large multifamily buildings, means all the units in the building are on one meter. The building owner is billed for utility usage based on the entire building and

then divides the bill amongst the individual unit renters. Units with individual meters and thermostats afford the renter more opportunities to save energy. Note that different utilities may be metered in different ways. Your apartment maybe master metered for water and individually metered for electric.

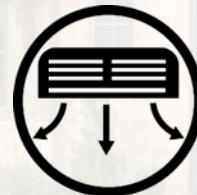


People in master metered buildings often pay an extra 25 percent more for utilities as part of their condo fee or rent²



Master metered buildings are great places for building-wide energy efficiency initiatives; it takes everyone conserving to save costs. Starting a building wide energy savings program will not only help you save money but also builds a sense of community.

3. Heating and Cooling Systems



Ask how old the heating and cooling systems are; older systems (10-15 years old or more) are less efficient and cost more to operate. Ask to see the system: is it clean and does it appear well maintained? Barring a major change in fuel costs, a gas system will be less costly than an electric or oil system in the Northeast. If the furnace or boiler is in a space that is not heated like a basement or garage, operating cost for that equipment or system may be more expensive.



Ask how old the heating and air conditioning system is and where it is located.

² My Master Metered Building - <http://getenergysmartnow.com/2011/08/30/my-master-metered-condo-and-its-priorities/>



A ten year old air conditioning unit may cost 20 to 40 percent more to operate than a new unit.³



Which direction does the apartment face? An apartment that faces east or the west may experience higher temperatures during the day or in the summer months, resulting in higher utility costs. Units that are centrally located, with units on each side and above and below will cost less to operate than end or top units.

4. Water Heating



Water heating is typically⁴ the next most costly expense after heating and cooling. Similar to the furnace, depending on age and possibly the location of the water heater, costs will vary. The type of water heater and the climate in which the heater is operating

will determine the life span and efficiency of the equipment. A water heater 10-15 years old will typically cost more to operate than newer more efficient equipment. The type of fuel used to heat the water will also determine operating costs. If the water heater is in a space that is not heated, like a basement or garage, operating costs may be higher.

Check out this water heater info graphic that will help you understand the different types of water heaters and costs associated with their operation: <http://energy.gov/articles/new-infographic-and-projects-keep-your-energy-bills-out-hot-water>



Ask how old the water heater is and where it is located.



Ask the type of fuel used for water heating and check with the local utility to see which the least expensive fuel for your area is.



Check for any leaking faucets, and make sure these leaks get fixed before signing the lease; signs of leaking water or water damage on the walls or floor, excessive moisture inside may cause mold which could be unhealthy.

5. Thermostat Control

"You can save 5 percent to 15 percent a year on your heating bill -- a savings of as much as one percent for each degree if the setback period is eight hours long,"⁵



A programmable thermostat will automatically change the temperature while you are away, at night or just before the morning. Lowering the temperature while you are out and during sleep hours will help you save energy and money.



Ask if you have thermostat control of heating in your individual unit and if it is programmable. If the thermostat is not programmable, ask the owner if you or they can purchase and replace the existing thermostat.

³ Central Air Conditioning - <http://energy.gov/energysaver/articles/central-air-conditioning>

⁴ Keep your Energy bills Out of Hot Water <http://energy.gov/articles/new-infographic-and-projects-keep-your-energy-bills-out-hot-water>

⁵ American could save a fortune this winter – if they understood their thermostats. <http://www.washingtonpost.com/news/wonkblog/wp/2014/11/21/americans-could-save-a-fortune-this-winter-if-they-only-understood-their-thermostats/>



By turning your thermostat back 10 - 15° for eight hours, you can save five to 15 percent a year on your heating bill – a savings of as much as one percent for each degree if the setback period is eight hours long.⁶



Studies show that only 30 percent of homes have programmable thermostats and of those only 47 percent are in program mode.⁷

6. Appliances



Appliances include the stove, refrigerator, washer, dryer, dishwasher and possibly room air conditioners. Inspect the gaskets and coils for tightness and cleanliness.



What is the age and **operating condition** of the appliance? Newer doesn't automatically mean more efficient: size and fuel matters.



Ask if the appliances are ENERGY STAR® rated, meaning that they are certified by the United States Environmental Protection Agency to save energy compared to non-ENERGY STAR appliances. Look for this label!



Rented apartments have half as many ENERGY STAR appliances as homes.⁸ In an apartment where the owner pays the bills, it's more likely there will be more energy efficient appliances.

7. Air Infiltration/Draftiness

Outside air entering the building or apartment or conditioned inside air leaking out of the unit can account for **half** of your annual heating and cooling expenses. Carefully inspect the rental checking for drafts around windows and doors. Look for holes or gaps around doors, windows, attic hatches, and where plumbing runs such as radiator pipes are entering or exiting the unit. Gaps and holes can be filled with foams, caulks, weather stripping, gaskets or tapes; ask the owner to address these issues prior to moving in.



Air infiltration can account for 30 percent of your heating and cooling costs.⁹



In units with a fireplace, closing the fireplace damper when it is not in use ensures the conditioned air stays inside, essentially closing off a large hole to the outside of the building.



Ask about the building's smoking policy; is smoking allowed in common areas? The state in which you rent sets the rules regarding indoor smoking.

⁶ U.S. Department of Energy. "Thermostats"

<http://energy.gov/energysaver/articles/thermostats>

⁷ American could save a fortune this winter – if they understood their thermostats.

<http://www.washingtonpost.com/news/wonkblog/wp/2014/11/21/americans-could-save-a-fortune-this-winter-if-they-only-understood-their-thermostats/>

⁸ [Why rental apartments have more inefficient fridges.](http://www.washingtonpost.com/blogs/wonkblog/wp/2012/12/22/why-rental-apartments-have-more-inefficient-fridges/)

<http://www.washingtonpost.com/blogs/wonkblog/wp/2012/12/22/why-rental-apartments-have-more-inefficient-fridges/>

⁹ US EPA – www.epa.gov

8. Windows



There are many types of windows made of different material such as aluminum, wood, vinyl and fiberglass. Windows may be wood with metal or plastic cladding. Check to see if the windows are double pane, which are more energy efficient than single pane. If the windows are particularly old be sure all windows are operational and have screens or storms. Screens will be useful to keep bugs out when the windows are open in the summer months.



Consider how you could cross ventilate or “flush” your unit of hot air.



Drapes with or without a thermal lining, window coverings, and block-out shades will help you keep your apartment cooler in the summer and warmer in the winter.



Window shrink wrap, available at most hardware stores, is a great option for very leaky windows.



Ask about window fall protection if you have young kids.

9. Insulation



Ask the owner about the insulation levels in the outside walls, ceiling and floor: the more insulation, the better. Very old buildings may be minimally insulated or not at all. However, not all old buildings are inefficient, and not all new buildings are automatically efficient. Some owners may not know how well the rental

is insulated, especially in older buildings where the wall cavities have not been opened at any point under their ownership. Another way to approach this question is to ask if the building or unit has been *weatherized*, meaning that the owner has methodically accessed the building for potential energy improvements and has implemented improvements such as air sealing, increasing or adding insulation, upgrading heating and cooling equipment, or installing more efficient appliances.



Insulation is measured using an “R-value,” which refers to its resistance to heat transfer. The higher the R-value, the better.



You may not have many options for adding actual insulation. Placing a book case on an outside wall, hanging tapestries or decorative quilt may help take the edge off cold winter nights. Area rugs add both insulation and comfort.



Filling in the gaps at the top of your curtains helps keep heat in and cold air out.

Simple Low Cost and No Cost Measures to Conserve Energy and Save Money

Free

- Set computers to go into standby mode after 30 minutes of nonuse.
- Drying clothes? Hang them to dry.
- Set your refrigerator to 36-40 °F and your freezer to 0-5 °F.
- Program your thermostat, or manually dial it back ten or more degrees at night or while you are away.
- In summer, turn off the AC at night and open windows to take advantage of “free cooling.”



- On sunny days, use the sunlight from windows instead of turning on lights when possible.
- Lower the temperature of the water heater to 120 degrees Fahrenheit if possible.

Quick Payoff

- Use energy efficient bulbs such as ENERGY STAR LEDs.
- Wash clothes in cold water.

Take it With You

- Use energy saving power strips (<https://www.sunrun.com/home-solar-blog/how-save-money-advanced-power-strips-and-smart-plugs>), especially on TVs, gaming consoles, desktop computers, etc.
- Shower heads and aerators are also easy ways for tenants to cut their water heating bills. Low flow showerheads should use < 2.5 GPM, faucet aerators should use: <1.5 GPM.
- Invest in ENERGY STAR appliances, lighting, and electronics.
- Consider replacing your non programmable or difficult to program thermostat with a smart thermostat or a learning thermostat that will detect your patterns and program itself.

Utility Energy Efficiency Programs

Providing Saving and Comfort

- Utilities want you to save energy and will provide incentives to help!
- Inquire with your utility company many offer various renter programs such as free home energy assessments to help reduce your home's energy use and save money.

Nationally

- Database of State Incentives for Renewables & Efficiency (DSIRE) - <http://www.dsireusa.org/>

NEEP Region

Connecticut – Energize Connecticut - <http://www.energizect.com>

Delaware - Energize Delaware – Residential Efficiency Program - <http://www.energizedelaware.org/About/>

District of Columbia – DC Energy Utility - <https://www.dcseu.com/>

Maine – Efficiency Maine - <http://www.energymaine.com/>

Maryland - EmPOWER Maryland - <http://energy.maryland.gov/residential/Pages/incentives/default.aspx>

Massachusetts – Mass Save Program - <http://www.masssave.com/residential>

New Hampshire – NH Saves - <http://www.nhsaves.com/>

New Jersey – NJ Clean Energy Program - <http://www.njcleanenergy.com/>

New York – Utility-Sponsored Programs - <https://www.nyserda.ny.gov/Residents-and-Homeowners/Sustainable-Living/Utility-Sponsored-Programs-for-Energy-Efficiency>

Pennsylvania – Keystone HELP - <http://www.keystonehelp.com/>
PA Energy - <http://paenergy.org/energy-efficiency-incentives/>

Rhode Island – National Grid Residential Efficiency Program - <https://www1.nationalgridus.com/EnergyEfficiencyServices>

Vermont – Efficiency Vermont - Efficiency Programs - <https://www.energymaine.com/rebates>

West Virginia- Home Energy Saver - <http://hes.lbl.gov/consumer/>



Resources to Help Renters Save Energy and Money

United States Department of Energy (DOE) and Environmental Protection Agency (EPA) - Home Energy, Appliance and Lighting Savings:

- www.energystar.gov/campaign/home
- <http://energy.gov/energysaver/articles/tips-renters-and-property-owners>

The Residential Energy Services Network (RESNET) a National Energy Efficiency Rating Organization - Energy Saving Tips:

- <http://www.resnet.us/library/category/energy-saving-tips/>

Conservation Services Group a Northeast Energy Efficiency Services Provider – Home Energy Efficiency Tips:

- <http://www.csgrp.com/homeowners-renters/home-energy-efficiency-tips-energy-info/instant-home-energy-savings-measures/>

A Glossary of Energy Efficiency Terms:

<https://www.energy.gov/eere/slsc/glossary-terms>

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Before You Rent Checklist			Property Address		
System	✓	Notes	System	✓	Notes
Metering			Heating Equipment		
Individually Metered			Age of System		
Master Metered			Type of Fuel		
Utility Cost			Equipment Location		
Landlord Pays Utilities			Water Heating Equipment		
Renter Pays Utilities			Age of Water Heater		
Type of Utilities			Age of System		
Gas			Equipment Location		
Oil			Appliances – Age & Condition, ENERGY STAR?		
Water			Oven		
Electric			Dishwasher		
Internet/Cable TV			Refrigerator		
Thermostat Control			Washer/Dryer		
Programmable Thermostat			Notes:		
In-Unit Thermostat					
Hallway Thermostat					



Before You Rent Checklist			Property Address		
System	✓	Notes	System	✓	Notes
Air Infiltration & Insulation			Other		
Building Insulated/Air Sealed			Ample Outlets		
Unit Insulated/Air Sealed			Cable/TV/Phone Connection		
Air Leakage – Inspect for drafts & gaps			# of light fixtures, type of bulb – CFL, LED		
Inspect Fireplace Damper			Natural Light		
Windows			Energy Ratings / Certifications:		
Single Pane					
Double Pane					
Triple Pane or more					
Storm Windows					
Screens					
Safety					
Carbon Monoxide and Smoke Detectors					
Fire Extinguisher					