

Outdoor Lighting

Outdoor lights provide beauty and security for your home. When shopping, you'll find all types of outdoor lights, from low-voltage pathway lights to motion-detector floodlights. You may also see lights that are powered by small photovoltaic (PV) modules. Lights so equipped convert sunlight into electricity. Try using these lights around areas not close to a power supply line.

Save on Outdoor Lighting

- ◆ Use outdoor lights that automatically turn off during the day by using a photocell unit or a timer.
- ◆ Install compact fluorescent bulbs outdoors. The long life of such bulbs make them an ideal choice. Make sure that you purchase lamps with cold-weather ballasts. Choose ENERGY STAR® light bulbs and fixtures.



Torchiere Lamps

Halogen bulbs, such as those commonly used in torchiere lamps, can create fire hazards due to excessive heat buildup. For a safer and more energy efficient alternative, use compact fluorescent lamps in your torchiere light fixtures.

Appliances add significantly to your energy bill — about 20%. The biggest energy consumers are refrigerators, air conditioners, clothes washers, and clothes dryers.

When you shop for appliances, remember that each appliance costs you in two ways: first, when you first buy it, and later, when you use it. Consider the purchase price the “down payment.” The energy of operating an appliance is what you’ll pay for the next 10 or 20 years, depending on the appliance. Refrigerators typically last 15 to 20 years, room air conditioners and dishwashers about 10 years and clothes washers about 14 years.

Always look for the ENERGY STAR® label when you shop. Such appliances have been identified by federal agencies as being the most energy efficient products in their classes. These appliances typically exceed minimum federal standards by a wide margin.

The federal government requires that most appliances display a yellow and black ENERGYGUIDE label to help you comparison shop. ENERGYGUIDE labels will not tell you which appliance is the most efficient, but they will tell you how much it costs to run the appliance per year. You can then compare operating costs among models yourself.

A simple way to save energy costs for “instant-on” appliances, such as televisions, is to unplug them when you won’t be using them for a few days. Such appliances draw small amounts of electricity even when they’re turned off.

Dishwashers

The major cost of running a dishwasher is heating the water. ENERGYGUIDE labels show you how much power is needed to heat the water based on the annual cost of gas and electric water heating.

What’s a Kilowatt?

A kilowatt is a unit of electricity equal to 1,000 watts. A kilowatt-hour (kWh) is the measure of electricity over time. For example, cooking a pot of rice for an hour consumes 1,000 watt-hours, or 1 kWh, of electricity.

Your energy bill indicates how many kilowatt-hours you use, along with the cost per kWh. A single kWh typically costs about 12 cents. A typical New Hampshire household uses about 6,750 kWh annually, resulting in a cost of about \$810 each year.

Dishwasher Tips

- ◆ Check the manufacturer’s recommendations for water temperature. Some dishwashers use internal heating elements so that you can lower the thermostat on your water heater to 120°F.
- ◆ Scrape off large food pieces and bones, rather than rinsing. Don’t bother to soak or pre-wash dishes unless food is burned or dried.
- ◆ Wash dishes when your dishwasher is full but not over-loaded.
- ◆ Avoid using “rinse and hold” for just a few dishes. This feature uses three to seven gallons of hot water.
- ◆ Use the “air dry” option on your dishwasher. If your dishwasher doesn’t have an automatic air-dry switch, turn off the control knob after the final rinse and prop the door open slightly.

- ◆ When shopping for a dishwasher, comparison shop by using the ENERGYGUIDE labels. ENERGY STAR® dishwashers use less energy and exceed minimum federal standards for energy consumption by at least 13%.

Refrigerators

To determine the energy efficiency of a refrigerator, check the ENERGYGUIDE label. The smaller the number, the less it will cost you to operate the appliance. And don’t forget to shop for ENERGY STAR® refrigerators. You can save from \$35 to \$70 per year over models built just 15 years ago. That adds up to between \$525 and \$1,050 over a typical refrigerator’s 15-year life.



Refrigerator Choices

Refrigerators with the freezer on top are more efficient than those with the freezer on the side.

Refrigerator/Freezer Tips

- ◆ Purchase a refrigerator with automatic moisture control. Such products are designed to prevent moisture from collecting on the cabinet exterior without adding a heater. (This is not the same thing as an “anti-sweat” heater. Models with such heaters consume five to ten percent more energy than models without a heater.)
- ◆ Keep your refrigerator between 37°F and 40°F, not colder. Freezers should be kept at 5°F; long-term storage freezer areas should be kept at 0°F.
- ◆ Check the temperature in your refrigerator by placing an appliance thermometer in a glass of water and leaving it in the center of your refrigerator for 24 hours. To check the freezer temperature, place a thermometer between frozen packages for 24 hours.

Based on standard U.S. Government tests

ENERGYGUIDE

Refrigerator-Freezer
With Automatic Defrost
With Side-Mounted Freezer
Without Through-the-Door-Ice Service

XYZ Corporation
Model ABC-W
Capacity: 23 Cubic Feet

Compare the Energy Use of this Refrigerator with Others before You Buy.

This Model Uses 776 kWh/year	
Energy Use (kWh/year) range of all similar models	
Uses Least Energy 742	Uses Most Energy 836

kWh/year (kilowatt-hours per year) is a measure of energy (electricity) use. Your utility company uses it to compute your bill. Only models with 22.5 to 24.4 cubic feet and the above features are used in this scale.

Refrigerators using more energy cost more to operate. This model's estimated yearly operating cost is:

\$68

Based on a 1995 U.S. Government national average cost of 8.4¢ per kWh for electricity. Your actual operating cost will vary depending on your local utility rates and your use of the product.

Important: Removal of this label before consumer purchase is a violation of Federal law (42 U.S.C. 8302).

How to Read the ENERGYGUIDE Label

When shopping for a new appliance, the ENERGYGUIDE label gives you two important pieces of information you can use for comparison of different brands and models:

- ◆ Estimated energy consumption on a scale showing a range for similar models.
- ◆ Estimated yearly operating cost based on the national average cost of electricity.

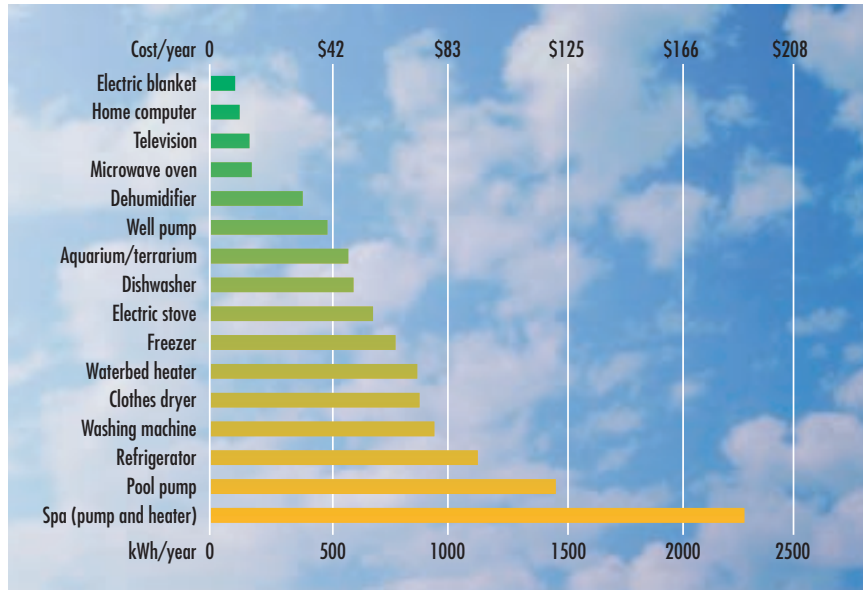
- ♦ With manual-defrost units, regularly defrost the refrigerator and freezer. Frost buildup burns energy. Keep frost to less than a quarter inch.
- ♦ Keep refrigerators and freezers full but not overcrowded. Arrange the contents in a way that allows air to circulate.
- ♦ Check that your refrigerator door is airtight. Test the door seal by closing a dollar bill halfway in the door. If you can pull out the bill easily, you may need to adjust the latch or replace the seal.
- ♦ Avoid opening the refrigerator and freezer doors unnecessarily.
- ♦ Cover foods and liquids stored in the refrigerator. Uncovered foods add moisture and make the refrigerator compressor work harder.
- ♦ If you're going to be away for more than a week, remove perishable items and turn up the thermostat a few degrees.
- ♦ Don't put foil on refrigerator shelves. It blocks airflow and makes it harder to cool food. Likewise, don't put paper bags or anything else behind the refrigerator where they can block airflow.
- ♦ Place the refrigerator and freezer away from heat-producing appliances such as stoves and ovens. Keep the refrigerator out of direct sunlight. Use your refrigerator's efficiency setting (if it has one) to reduce the number of hours it needs to run.
- ♦ Clean coils will reduce your refrigerator's run time. Vacuum condenser coils yearly (unless you have a no-clean-condenser model).
- ♦ Comparison shop with the ENERGYGUIDE label and buy ENERGY STAR® products.

Energy Saving Kitchen Tips

- ♦ Keep the kitchen faucet lever in the cold position when using small amounts of water. Keeping it in the hot position uses energy to heat the water even though it might not reach the faucet.
- ♦ Clean range-top burners and reflectors regularly. They will reflect heat better and save energy.
- ♦ Use a cover when boiling water; the water boils faster.
- ♦ Match the size of a pot or pan to the heating element.
- ♦ With electric stoves, turn off the burners a few minutes before cooking is complete. The heating element stays hot long enough to finish cooking without using extra energy. You can use this trick with electric ovens as well.
- ♦ For small meals, use electric skillets or toaster ovens rather than a full-sized oven or stove. Toaster ovens use a third of the energy used to power a full-sized oven.
- ♦ In the summer, cook outdoors or prepare cold meals to avoid heating up the kitchen and adding moisture to the air.
- ♦ Use pressure cookers and microwave ovens for even more savings. Both appliances reduce cooking times. Microwaves use less energy and cook food in about one-fourth the time of a conventional oven.
- ♦ Consider purchasing dual-purpose or convection microwave ovens (ones that both bake and microwave) or flashbake ovens.
- ♦ Look for a gas oven or range with an automatic electronic ignition system. Such systems save gas because they don't use a pilot light.
- ♦ Check for blue flames on your gas appliances. Yellow flames indicate that the gas is burning inefficiently. If you see yellow flames, contact the manufacturer or your local gas utility for assistance.

How Much Electricity Do Appliances Use?

This chart shows the amount of energy used and the amount it costs to run various appliances over the course of a year (based on national averages). As shown, a refrigerator uses nearly five times the electricity of the average television.



Laundry

Just like dishwashers, most of the energy costs of washing your clothes — at least 80% — goes to heating the water. You can reduce the cost of washing clothes by using less water and by using cooler water. The warm or cold setting on your washer will generally do a good job. Oily stains may require a hot setting. Switching from hot to warm water can cut your laundry energy use in half.

When you shop for a new clothes washer, always look for an **ENERGY STAR**[®] machine. These machines may be more expensive, but they use about a third of the energy and less water than typical machines. In addition, **ENERGY STAR**[®] washers save money when you dry because they remove more water during the spin cycle.

When shopping for a new dryer, look for one with a moisture sensor that automatically shuts off the machine when clothes are dry. This not only saves money, but also saves wear on your clothing due to over drying.

Laundry Tips

- ♦ Wash clothes in cold water using cold water detergent when possible.
- ♦ Don't use too much detergent. Too many suds require extra rinsing.
- ♦ Do two or more loads in a row.
- ♦ Consider drying clothes on an outside line.
- ♦ Fully load your washer and dryer. If you are washing a small load, set the water level appropriately.
- ♦ Dry towels and heavy items separately from lighter-weight clothing.
- ♦ Inspect your dryer vent periodically to make sure it's not blocked with lint. This saves energy and may prevent a fire. Use rigid venting material rather than plastic so that the venting material won't collapse and block airflow.
- ♦ Improve air circulation by cleaning your dryer's lint filter after every load.
- ♦ Avoid over drying clothes. Use your machine's moisture sensor (if it has one).
- ♦ Use your machine's cool-down cycle to allow clothes to dry using residual heat in the dryer.
- ♦ Comparison shop with the **ENERGYGUIDE** label and buy **ENERGY STAR**[®] products.



Home Office and Entertainment

With more people working and playing at home, it's no surprise that there is an increase in the energy use from home offices and entertainment systems. One of the simplest things you can do to reduce energy use is to turn off equipment when it's not in use. Most "instant-on" items such as televisions and VCRs draw power even when they're not in use.

Other helpful tips include:

- ♦ Turn off your computer and printer when they won't be used for an hour or more.
- ♦ Use the "sleep" function on computer equipment. This feature can save up to 50% of the energy used by computer CPUs and 80% used by monitors. To maximize energy savings, shorten the setting on your computer's sleep cycle and your monitor's "power down" function.
- ♦ Turn off your monitor when it won't be used for a few minutes or more. (Your monitor can be turned back on quickly, unlike your computer.)
- ♦ Don't send a fax transmission sheet with every transmission. Rather, use stick-on labels on the first page of fax messages.
- ♦ Buy a copier based on your needs. A mid-volume copier uses 70% more energy than a low-volume model.
- ♦ Run copies in batches and use duplexing when possible.
- ♦ Look for ENERGY STAR® products when making purchases.

Saving Energy with Other Appliances

Dehumidifiers — A dehumidifier can use as much energy as an air conditioner. To reduce your reliance on a dehumidifier, reduce moisture in other ways:

- ♦ Set the unit to its lowest possible setting.
- ♦ Use the thermostat on your dehumidifier so it will cycle on and off as needed.
- ♦ Keep the dehumidifier away from your air conditioner and moisture-producing appliances such as coffee pots, aquariums and vaporizers.
- ♦ If you need to run a dehumidifier and have an electric hot water tank, then consider installing a heat pump hot water heater.
- ♦ Comparison shop with the ENERGYGUIDE label and buy ENERGY STAR® products.

Waterbeds — An electric waterbed heater can use as much energy as a water heater or refrigerator, and typically costs from \$50 to \$240 to run per year. To save energy:

- ♦ Insulate yourself from the bed by placing thick foam padding between you and the cool surface of the bed.
- ♦ Try using a timer to turn on the heater a few hours before you retire and turn it off three or four hours before you wake up.
- ♦ Use heavy mattress covers and insulate the bottom and sides of the bed with rigid foam insulation to keep the heat in the bed, rather than in the room.
- ♦ Cover the waterbed daily with a thick comforter or quilt.

Well Pumps — Well pumps cost from \$50 to \$80 to run annually. To save energy costs, reduce your water use and have the pump checked by a professional if you suspect a leak or malfunctioning pressure switch (which can cause the pump to run too often).

Pool Pumps — A pool pump costs between \$50 and \$300 to run per year. Use a timer to limit the pump's use. Running the pump eight hours a day works well with most filtering systems. Save additional money by turning off the pool heater when you'll be away for a few days.

Spas and Hot Tubs — Spas and hot tubs use about \$150 to \$600 in energy yearly. To save energy:

- ◆ Keep the spa or tub covered with a tight fitting insulated cover when not in use.
- ◆ Insulate the sides and bottom of your unit when it's installed.
- ◆ Try lowering the water temperature to 60-80° F when you won't be using it for more than a day.
- ◆ Turn off the water heater when you're away on vacation.

Auto Block Heaters — An auto block heater can cost \$15 to \$100 to run per year. To reduce energy costs:

- ◆ Use the heater only one hour before you start the car.
- ◆ Keep antifreeze fresh to avoid engine block freezing.
- ◆ With diesel engines, try installing a heavy-duty plug-in appliance timer to run the heater for about an hour before you need to start the car.

Space Heaters — A space heater can cost you up to \$70 per month to run if it's used 12 hours a day. Your best bet is to use it only when adding heat for a special purpose. Radiant (quartz) heaters are better at heating people than space and are less expensive to operate. Keep the thermostat at the lowest setting that will keep you comfortable.

Furnace Fans — If you heat with gas or oil, a furnace fan costs \$25 to \$200 to run yearly. An improperly set fan thermostat can cause cold air to blow out of warm air registers after the furnace turns off, or it may cause the fan to turn off when the furnace is running. Switching a furnace fan from continuous circulation to thermostat-controlled could save you up to \$100 per year. Contact a professional for assistance.

NHSaves

Your electric company is part of NHSaves, the statewide energy efficiency initiative.

NHSaves is about people in New Hampshire doing the right thing — working together to save energy, reduce costs, and protect the environment. The mission of NHSaves is to advance the efficient use of energy, while caring for the environment and promoting economic development in New Hampshire. NHSaves programs include home audits and incentives to make your home more energy efficient, rebates on ENERGY STAR® lighting and appliances, and assistance in building a very efficient new home.

For more information about all NHSaves programs, go to www.nhsaves.com, call 1-866-266-2420, or contact your electric company directly.

Your New Hampshire Utilities

Connecticut Valley Electric Company

800-649-2877 www.cvps.com/subs/cvec/cvec.html

Granite State Electric Company

800-322-3223 www.granitestateelectric.com

New Hampshire Electric Cooperative

800-478-4328 www.nhec.com

Public Service of New Hampshire

800-662-7764 www.psnh.com

Unitil

Capital District 1-800-852-3339 www.unitil.com

Seacoast District 1-800-582-7276