



## WHAT DOES IT COST?

Understanding electric usage  
and costs within your home



Connecticut  
Light & Power

The Northeast Utilities System

P.O. Box 270  
Hartford CT 06141-0270

## BECOMING MORE ENERGY EFFICIENT

This brochure can help you make your home more energy efficient. It provides information on CL&P's energy-efficiency programs, as well as information on average operating costs of common household appliances.

Knowing the operating costs of appliances in your home will help you save energy, reduce waste and manage your cost.

Many appliances are subject to the Federal Trade Commission's labeling rule that requires an Energy-Guide label be displayed with the product. Reference this guide for information about the annual energy cost for the appliance and comparable models.

Visit [www.energystar.gov](http://www.energystar.gov) for extensive information on energy efficiency in the home, as well as detailed appliance information.



[www.energystar.gov](http://www.energystar.gov)

## CL&P ENERGY- EFFICIENCY PROGRAMS

### Weatherization Residential Assistance Partnership (WRAP)

Free for qualifying low-income customers, this weatherization program assists with services that will conserve hot water, provide energy-efficient lighting, reduce heat loss in winter and heat gain in summer, as well as safely lower electric use.

### Home Energy Solutions

During one in-home visit by trained energy-efficiency specialists, customers will receive a thorough inspection of their home for wasteful drafts and leaks, and an evaluation of basement and attic insulation. If needed, the specialist will install energy-efficient lightbulbs, low-flow showerheads and faucet aerators, water heater and pipe insulation, as well as provide advice and tips on energy efficiency. This program is free for all CL&P customers who heat their homes with electricity or natural gas.

### Rebate Programs

CL&P and the Connecticut Energy Efficiency Fund offer incentive programs to customers who replace inefficient heating and cooling systems with energy-efficient models. Up to \$500 is available for customers who install central air conditioning or heat pump systems with a Seasonal Energy Efficiency Ratio (SEER) of 15 or higher. Up to \$3,000 is available for customers who install ARI-rated geothermal systems. Federal tax credits may also be available to customers who install these energy-efficient heating and cooling options.

For more information on any of CL&P's energy-efficiency programs, please visit [www.cl-p.com](http://www.cl-p.com) or call 1.877.WISE.USE.

# TIPS

## ENERGY SAVING TIPS

- Replacing 10 incandescent lightbulbs with 10 compact fluorescent lightbulbs may save up to \$75 per year. ENERGY STAR qualified lightbulbs use about 75% less energy than standard incandescent lightbulbs and last up to 10 times longer.
- Using programmable thermostats, which automatically adjust your home's temperature settings, allows you to save approximately 10% per year on your heating and cooling bills.
- Getting rid of that second older refrigerator can save up to \$170 per year.
- Switching to an ENERGY STAR qualified clothes washer can save about 40% of energy, up to \$95 with an electric hot water system and up to \$75 with other fossil fuel water heaters, and 9,000 gallons of water per year compared to a standard clothes washer.
- Using a clothes line during summer instead of a dryer may save up to \$85 per year in energy costs.
- Sealing and insulating the envelope or shell of your home – its outer walls, ceilings, windows, doors and floors – can save up to 20% in heating and cooling costs.
- Replacing standard appliances with ENERGY STAR home appliances may save up to 30% in energy costs.
- Taking shorter showers can save approximately 3,200 gallons of water per year, 30% in energy and up to \$65 in energy costs annually.
- Using outdoor lights with a photocell or motion sensor so they will turn on only at night or when someone is present could increase your energy savings by 50%.
- During winter, opening the curtains and shades on the south-facing windows will let in the winter sun. During summer, closing curtains and shades on the south-facing windows reduces solar gain.



### Calculating the Operating Cost Of Appliances:

The costs in this guide are calculated using approximate wattage and usage hours. To calculate the exact cost of operating an appliance in your home, use the following formula:

$$\text{Watts} \div 1,000 \times \text{hours used} = \text{kilowatt hours (kWh)}$$

$$\text{kWh} \times \text{rate per kWh} = \text{operation cost}$$

For example, the cost of operating a 100-watt incandescent lightbulb for 8 hours is:

$$100 \div 1,000 \times 8 = 0.8 \text{ kWh}$$

$$0.8 \times 0.19215^* = \$0.15 \text{ (or 15 cents)}$$

*Note: Certain appliances are only "on" for a fraction of the time they are being used. Thermostatically controlled appliances (such as refrigerators) are on 30% to 80% of the actual time used. Other appliances, such as televisions or computers, are still using small amounts of energy even when they are not on, or are in stand-by mode. For more information on watts used during stand-by mode visit [www.energystar.gov](http://www.energystar.gov).*

## OPERATING COSTS

Type of Appliance	Typical Wattage	Typical Hours of Use/Month	Typical Monthly kWh	Typical Cost Per Month	Type of Appliance	Typical Wattage	Typical Hours of Use/Month	Typical Monthly kWh	Typical Cost Per Month
<b>HVAC</b>					<b>KITCHEN</b>				
Air Conditioner					Refrigerators**				
5000 BTU	625	200	125	\$24.02	16 cu ft – Frostless	510	720	147	\$28.25
9500 BTU	1439	200	288	\$55.34	20 cu ft – Frostless	594	720	171	\$32.86
12000 BTU	1500	200	300	\$57.65	21 cu ft – Side by Side	653	720	155	\$29.78
36000 BTU (Central Air)	4500	200	900	\$172.94	25 cu ft – Side by Side	841	720	200	\$38.43
Ceiling Fan	200	350	70	\$13.45	Chest Freezer**				
Attic Fan	500	50	25	\$4.80	9 cu ft – Frostless	450	720	130	\$24.98
Window Fan	200	50	10	\$1.92	14 cu ft – Frostless	583	720	168	\$32.28
Dehumidifier	500	180	90	\$17.29	Dishwasher				
Humidifier (Cold Mist)	200	350	70	\$13.45	Dry Cycle	1000	30	30	\$5.76
Humidifier (Warm Mist)	384	350	134	\$25.75	Regular Cycle	200	20	4	\$0.77
Forced Warm Air Heating .5 HP	400	420	168	\$32.28	30" Self Cleaning Oven	3000	15	45	\$8.65
Portable Space Heater	1500	720	964	\$185.23	Small Burner (1)	1200	10	12	\$2.31
Heat Pump with Blower – 1500 ft	4500	720	2125	\$408.32	Large Burner (1)	2400	10	24	\$4.61
Oil or Gas Burner Motor .5 HP	400	720	288	\$55.34	Microwave Oven	1500	10	15	\$2.88
Electric Water Heater – 4 ppl (120 degrees & 52 gal)	4500	720	519	\$99.73	Toaster Oven	1500	5	2	\$0.38
Air Cleaner	120	300	36	\$6.92	Coffee Maker	900	15	14	\$2.69
Well Pump 1 HP – Shallow	1000	81	81	\$15.56	<b>ELECTRONICS</b>				
Well Pump 2 HP – Deep	2000	81	163	\$31.32	Desktop PC (Computer & Monitor)	250	174	44	\$8.45
<b>APPLIANCES</b>					Desktop PC (Computer & Monitor)	250	720	180	\$34.59
Washing Machine	512	20	10	\$1.92	Laptop Computer	65	120	8	\$1.54
Clothes Dryer	5000	40	200	\$38.43	Radio	75	130	10	\$1.92
Vacuum Cleaner	1440	4	6	\$1.15	Television				
Hot Tub (4 Person) Insulated/Indoors	1500	720	162	\$31.13	Color Tube 36"	133	120	16	\$3.07
Pool- Above Ground .5 HP	500	240	120	\$23.06	LCD (32"-50" Average)	108	120	13	\$2.50
Whirlpool Bathtub	1800	15	27	\$5.19	Plasma (42"-50")	375	120	45	\$8.65
Sump Pump	500	20	10	\$1.92	DVD/VCR	45	120	5	\$0.96
Waterbed (Queen)	375	720	116	\$22.29	Treadmill	1200	16	19.2	\$3.69
<b>LIGHTING</b>					Elliptical	100	16	1.6	\$0.31
60 Watt Incandescent	60	30	2	\$0.38	Electrostatic Cleaner	50	720	36	\$6.92
60 Watt Incandescent	60	150	11	\$2.11	Hair Dryer (Hand Held)	1500	10	3	\$0.58
60 Watt Incandescent	60	720	43	\$8.26	Electric Blanket	165	240	20	\$3.84
100 Watt Incandescent	100	150	15	\$2.88	Bug Killer	40	300	12	\$2.31
Mid-Lumen Compact Fluorescent	13	150	2	\$0.38	Iron (Hand)	1200	11	13.2	\$2.54
High-Lumen Compact Fluorescent	30	150	5	\$0.96	50 Gallon Fish Tank (Heater)	200	360	72	\$13.83
					(Including light & filter)	36	720	26	\$5.00

The wattage and kWh used in this chart are based on assumed averages and are intended to be used as a guide.

\* The rate per kWh is reflective of the July 2008 residential rate 1 of \$0.19215. Actual operating costs vary by model, year, and wattage rating as well as actual hours used. Purchasing an energy meter will allow you to determine your actual costs based on the electric usage in your home.

\*\*Although refrigerators and freezers are plugged in 24/7, they are only on 30% to 80% of the actual time used.