



# Fact Sheet



## The Cost of Operating Appliances

### How much does it cost to operate all of your electrical appliances?

The answer depends on many factors, including: the number and kinds of appliances you use; the way you use them; how long you use them; the number of people in your household; and, the price you pay for electricity.

There are also seasonal factors. For example, in the summer, you may cook less, use your lighting for shorter periods of time and use air conditioners or fans. In the winter, your heating and cooking costs are probably higher, and your lighting will be used for more hours during the day.

The addition of new appliances—or new family members—can also increase your electricity use.

The appliances that cost the most to operate are the ones that require the greatest amount of electricity to generate heat, such as your furnace, water heater or range, or to cool, such as your air conditioning system. The cost of operating an electrical appliance is calculated using these three factors:

1. The number of watts the appliance uses.
2. The number of hours the appliance is used.
3. The cost you pay for one kilowatt-hour (kWh) of electricity. (A kilowatt-hour is 1,000 watts of electricity used for one hour.)

To calculate the cost of operating an appliance, multiply the wattage of the appliance by the approximate number of hours you operate the appliance (the wattage of an appliance is usually listed on the appliance). Next, divide by 1,000 – this will give you the number of kWhs the appliance uses. Finally, multiply the kWh use by your cost per kWh as shown on your electric bill.

Example: A television set is rated at 300 watts and operated for seven hours a day.

1. Multiply 300 watts by seven hours ( $300 \times 7 = 2,100$  watt-hours)
2. Divide by 1,000 ( $2,100 \div 1,000 = 2.1$  kWh)
3. Multiply the kilowatt-hours by the price of electricity.  
Let's use 7 cents per kWh: ( $2.1 \text{ kWh} \times 7 \text{ cents} = 14.7 \text{ cents}$ )

The TV set costs approximately 15 cents a day to operate.

### Typical Operating Costs of Various Appliances

Average Use	Estimated Typical Wattage	Avg. Op. Time (Hrs/mo.)	Use (\$/mo.)
Air Conditioner (5,000 BTUH room unit)*	900	200	\$9.45
Air Conditioner (12,000 BTUH room unit)*	1,500	200	\$15.75
Aquarium (air pump & heater)	150	720	\$7.56
Attic Fan	350	60	\$1.47
Blanket (electric)	170	240	\$2.86
Ceiling Fan	90	180	\$1.14
Clothes Dryer (24-32 loads)	5,000	24	\$8.40
Clothes Washer (24-32 loads)	550	16	\$0.62
Computer (desktop)	750	120	\$6.30
Computer (laptop)	75	90	\$.48
Dehumidifier (continuous)	350	720	\$17.64
Dishwasher	1,200	20	\$1.68
Freezer*	400	720	\$8.07
Furnace Fan*	450	360	\$5.67
Humidifier	80	200	\$1.12
Lighting (7 rooms @ 60W)	720	100	\$5.04
CFL Lighting (7 rooms @ 13W)	156	100	\$1.10
Microwave	875	10	\$0.62
Oxygen Concentrator	250	720	\$12.60
Pool Pump*	875	360	\$11.03
Room Heater	1,200	75	\$6.30
Range	12,000	10	\$8.40
Refrigerator*	500	720	\$10.15
Hot Tub (indoors)*	1,500	720	\$11.34
Hot Tub (outdoors)*	1,500	720	\$41.58
Television (conventional 32")	130	120	\$1.10
LCD (42")	216	120	\$1.82
Plasma (42")	286	120	\$2.41
Toaster	1,200	3	\$0.26
Vacuum Cleaner	1,050	5	\$0.37
Water Bed	300	720	\$15.12
Well Pump	1,200	15	\$1.26
Water Heater (30 gal. /1 person)*	3,500	300	\$22.05
Water Heater (40-50 gal. /1 person)*	4,500	300	\$28.35

Calculations are based on a rate of 7 cents per kilowatt-hour. Your actual rate may be different depending on where you live and the company that supplies your electricity.

\* These appliances do not run continuously. The monthly costs are based on the percentage of time the appliances are fully operational. These percentages may vary depending on your usage habits.



# Fact Sheet



## Energy Efficiency Tips to Make Your Home More Comfortable this Winter

### Keep the Cold Out

According to the U.S. Department of Energy (DOE), the most common places where air escapes in homes are:

- ▶ Floors, walls, ceilings .....31 percent
- ▶ Ducts..... 15 percent
- ▶ Fireplace..... 14 percent
- ▶ Plumbing ..... 13 percent
- ▶ Doors ..... 11 percent
- ▶ Windows ..... 10 percent
- ▶ Fans and vents ..... 4 percent
- ▶ Electric outlets ..... 2 percent

Sealing leaks around doors, windows and other openings – such as pipes or ducts – with caulk or weather-stripping could cut as much as 10 percent from an average household’s monthly energy bill.

### Be a Watt Watcher

The Watt Watchers: Use Energy Wisely Campaign is our commitment to demonstrating the very real and positive impact that energy efficiency initiatives can have on your home. As a part of this program, we’re developing a number of new energy conservation initiatives. For more information and helpful links, visit [www.alleghenypower.com](http://www.alleghenypower.com) and click on the “Watt Watchers” logo. These sites include a convenient way to search for ENERGY STAR® energy-efficient appliances, educational material for children and much more.



### Use Energy Wisely

- Set your thermostat between 65 and 70 degrees during the winter and lower it to 58 degrees when away from the house for more than a few hours. Bear in mind that warmer temperatures are recommended for homes with ill or elderly persons or infants.
- Turn down thermostats automatically without sacrificing comfort by installing an automatic setback or programmable thermostat.

**\$ BE A WATT WATCHER: Cut your annual heating bill by as much as 10 percent per year by turning your thermostat back 10 to 15 percent for eight hours per day.**

- Change or clean furnace filters once a month during the heating season. Furnaces consume less energy when they can “breathe” more easily.
- Lower the thermostat on the water heater to 120 degrees to cut water heating bills without sacrificing comfort.

**\$ BE A WATT WATCHER: Since water-heating is a typical family’s third-largest energy expense – accounting for about 14 percent of the utility bill – turning down the unit’s thermostat to 120 degrees can help you save money.**

- If radiators are located near cold walls, place a sheet of aluminum foil between the radiator and the wall to reflect heat back into the room.
- Run your washing machine and clothes dryer with a full load.
- Open draperies and blinds on sunny winter days to take advantage of free solar heat. Close draperies at night to insulate against cold air outside.