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A guide to
figuring costs for
typical electric uses
around your home

Portland General Electric

What does it cost?

Smart use of energy pays off in lower energy bills. But, how much lower? This guide will help you estimate what it typically costs to operate various electrical appliances and equipment around the home. We've also included some "best tips" that'll save the most energy.



Figuring Your Costs

The charts on the following pages provide you a handy general guide to calculating how your home uses electricity and what it can cost. All you have to do is:

1. Estimate the number of hours you typically use each appliance per month.
2. Multiply the number of hours of use by the hourly cost listed for each appliance to estimate the cost per month.

The Typical Monthly Cost is provided as a general guide. Your usage will vary.

When you've figured where and how much you are spending for electricity, read the tips below each graph that will help you save energy. For more information, just give our Energy Experts a call at **503-612-3500** or **1-800-722-9287**. Or, visit our website at **PortlandGeneral.com/ee**.

How is electricity priced?

Electricity is priced per kilowatt-hour used. The more kilowatt-hours used, the higher the bill. A kilowatt is shorthand for 1,000 watts – "Kilo" (Greek for 1,000) and watt. Appliances and lights are rated by how many watts they use.

A kilowatt-hour is 1,000 watts used for one hour.

For example, one kilowatt-hour will run a 100 watt light bulb for 10 hours.

So, how do you figure what a specific electric appliance or equipment will cost to run? It's easy.

Here's the formula based on a month's time:

$$\frac{\text{wattage}}{1,000} \times \text{X hours used per month} \times \text{cost per kilowatt hour}$$

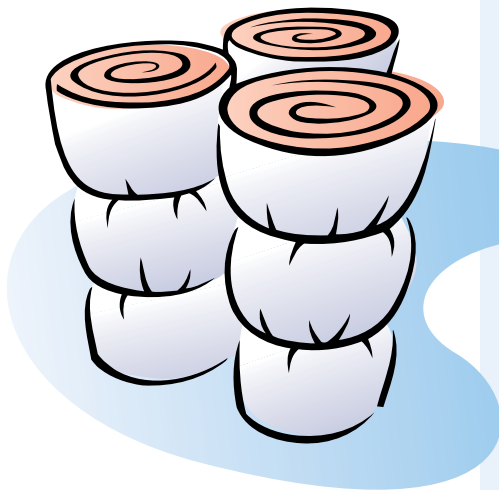


Heating & Cooling

Heating and air conditioning your home is at the top of the list when it comes to energy.

Appliance	Hours Used Per Month	Hourly Cost	Your Monthly Cost	Typical Monthly Cost	Comments
Space heater (1,500 W)	_____	x \$0.1200	= _____	\$7.20	2 hrs/day
Electric furnace 15kw (15,000 W)	_____	x \$1.2000	= _____	\$72.00	2 hrs/day
Zonal AC (1,350 W)	_____	x \$0.1080	= _____	\$9.72	3 hrs/day
Heat pump/Central AC (5,000 W)	_____	x \$0.4000	= _____	\$36.00	3 hrs/day
Bathroom exhaust fan (70 W)	_____	x \$0.0057	= _____	\$0.17	1 hrs/day
Portable fan (100 W)	_____	x \$0.0080	= _____	\$0.24	1 hrs/day
Furnace fan (400 W)	_____	x \$0.0320	= _____	\$1.92	2 hrs/day
Ceiling fan (75 W)	_____	x \$0.0060	= _____	\$1.44	8 hrs/day

Cost estimates are based on \$0.08 per kWh. The "Typical Monthly Cost" per month column should be used for comparative purposes only. Actual use varies from home to home depending on the number of people in the household, weather and numerous other factors. Additionally, appliances are available in a wide range of power consumptions. The sizes and usage calculations are intended only to represent a typical size, and costs and usage will vary. This information should be used as a general guide.



Savings Tips

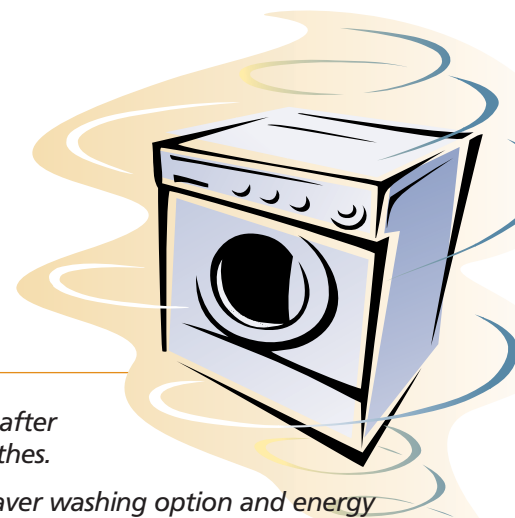
- *Insulation works. It's the best way to save on heating and cooling costs.*
- *Caulk and weather-strip around windows and doors, and where plumbing and electrical conduit enters your home.*
- *Replace furnace, heat pump and air conditioner filters regularly.*
- *Use programmable "smart" thermostats to regulate use of heating systems.*
- *Make sure fireplace and woodstove dampers are closed when not in use.*

Water Heating & Laundry

Appliance	Hours Used Per Month	Hourly Cost	Your Monthly Cost	Typical Monthly Cost	Comments
Water Heater (4,500 W)	_____	x \$0.3600	= _____	\$28.44	50 gal
Water bed heater (400 W)	_____	x \$0.0320	= _____	\$5.70	Normal use
Dishwasher-11 amp (1,320 W)	_____	x \$0.1051	= _____	\$2.11	20 loads/month
Clothes washer (hot wash/warm rinse)	_____	x \$0.5040	= _____	\$10.10	Hot water, 140° F
Clothes washer (hot wash/warm rinse)	_____	x \$0.3908	= _____	\$7.82	Hot water, 120° F
Clothes washer (warm wash/warm rinse)	_____	x \$0.3440	= _____	\$6.88	Hot water, 140° F
Clothes washer (warm wash/cold rinse)	_____	x \$0.2720	= _____	\$5.44	Hot water, 120° F
Clothes washer (cold wash/cold rinse)	_____	x \$0.0320	= _____	\$0.64	20 loads/month
Clothes dryer (5,500 W)	_____	x \$0.4400	= _____	\$8.80	20 loads/month
Iron (1,000 W)	_____	x \$0.0800	= _____	\$0.16	2 hrs/month

* Refers to temperature setting of electric water heater.

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Savings Tips

- Set your water heater thermostat at 120 degrees.
- Fix water faucet leaks. Sixty drops per minute will waste nearly 200 gallons in a month.
- Wrap water heater if it is old and located in an unheated space.
- Use warm or cold water instead of hot for laundry.
- Clean lint filters after each load of clothes.
- Use the water-saver washing option and energy saver drying option on your dishwasher
- Replace older appliances with energy efficient models.
- Use low-flow faucet aerators and shower heads.

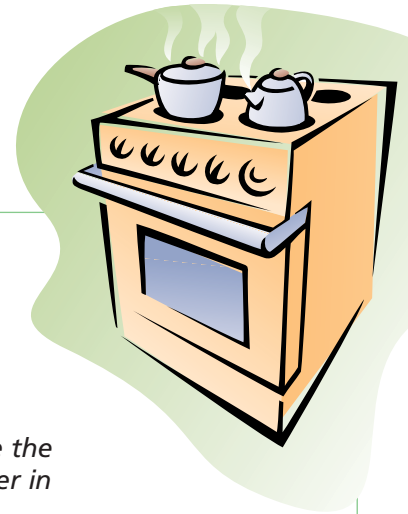
Refrigeration & Cooking

Appliance	Hours Used Per Month	Hourly Cost	Your Monthly Cost	Typical Monthly Cost	Comments
Freezer 15 cubic feet (340 W)	_____	x \$0.0272	= _____	\$6.53	Average monthly cost
Freezer frostless-15 cubic feet (440 W)	_____	x \$0.0352	= _____	\$8.45	Average monthly cost
Refrigerator 12-14 cubic feet (325 W)	_____	x \$0.0259	= _____	\$6.22	Average monthly cost
Refrigerator 15-20 cubic feet (615 W)	_____	x \$0.0492	= _____	\$11.81	Average monthly cost
Oven (3,500 W)	_____	x \$0.2800	= _____	\$8.40	1/hr day
Range 6" element (1,600 W)	_____	x \$0.1280	= _____	\$1.92	30 min/day
Range 8" element (2,100 W)	_____	x \$0.1680	= _____	\$2.52	30 min/day
Microwave (1,500 W)	_____	x \$0.1200	= _____	\$1.80	30 min/day
Slow cooker (70 W)	_____	x \$0.0056	= _____	\$0.09	16 hrs/month

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Saving Tips

- Check to make sure refrigerator/freezer gaskets seal tightly.
- Use a convection oven, microwave or smaller electric appliances whenever possible.
- Defrost freezer compartments before frost exceeds 1/4 inch.
- Never use the oven to heat your home.
- Use pots and pans with flat bottoms.
- Remember: Next to space heating and water heating, your refrigerator could be the biggest electricity user in your home.



Lighting & Miscellaneous

Appliance	Hours Used Per Month	Hourly Cost	Your Monthly Cost	Typical Monthly Cost	Comments
Incandescent (60 W)	_____	x \$0.0048	= _____	\$0.86	6 hrs/day
Halogen torchiere (300 W)	_____	x \$0.0240	= _____	\$4.32	6 hrs/day
Fluorescent 2 lamp, 4 ft. tubular (96 W)	_____	x \$0.0076	= _____	\$1.38	6 hrs/day
Yard light 175 w mercury vapor (192 W)	_____	x \$0.0153	= _____	\$5.51	12 hrs/day
Radio (15 W)	_____	x \$0.0012	= _____	\$0.36	1 hr/day
Television 19 inch color (125 W)	_____	x \$0.0100	= _____	\$1.80	6 hrs/day
Television big screen color (300 W)	_____	x \$0.0240	= _____	\$4.32	6 hrs/day
VCR/DVD player (40 W)	_____	x \$0.0032	= _____	\$0.38	4 hrs/day
Computer (40 W)	_____	x \$0.0032	= _____	\$2.30	continuous
Electric blanket	_____	x \$0.0140	= _____	\$3.36	8 hrs/day
Vacuum cleaner (960 W)	_____	x \$0.0730	= _____	\$0.15	2hrs/ month
Well pump 1 horsepower (1,000 W)	_____	x \$0.0800	= _____	\$2.40	1 hr/day
Pool pump 1-1/2 horsepower (1,500 W)	_____	x \$0.1200	= _____	\$86.40	continuous
Hot tub heater (5,000 W)	_____	x \$0.4000	= _____	\$15 - \$50	usage varies
Hot tub circulation pump 1 horsepower (1,000 W)	_____	x \$0.0800	= _____		

Saving Tips

- Turn off lights when not needed.
- Consider replacing as many incandescent bulbs with energy saving compact fluorescent bulbs as possible. Compact fluorescent bulbs use 75% less electricity as conventional bulbs and last up to 10 times longer.*
- Light colored interior paints on walls/ceilings help reduce amount of lighting required.
- Automatic timers and motion detectors are a useful way to manage lighting.

* Based on manufacturer's estimates

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