



WHERE DO ELECTRICITY DOLLARS GO?

A Home Electricity Consumption Guide



Flint@nergies

Your Touchstone Energy® Cooperative 

Where Do Electricity Dollars Go?

Knowing the answer to this question helps you understand energy bills. That's why we developed this brochure to help you see exactly what you receive for your electricity dollars.

Because electricity is an invisible commodity, we tend to forget all it does in our everyday lives and exactly all we receive for charges on our energy bills. You can view electricity just like any other commodity you purchase. Most of us wouldn't think of buying a commodity without knowing exactly what we

are receiving for that money.

Whether it's pounds of oranges, number of pork chops, or gallons of gas, we consciously compare prices, and we are very aware

of what our food and gasoline dollars buy. This brochure will help you do the same for electricity.

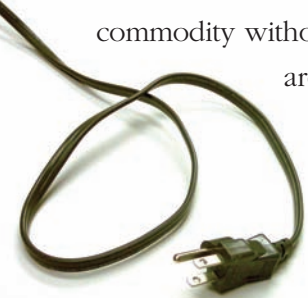
When you pay your energy bill, you are paying for kilowatt-hours. Your appliances, electronic equipment, household lighting,

etc., all consume kilowatt-hours. Knowing how each of these items affects your energy consumption will assist you in determining where your electricity dollars go and how you may conserve energy.

This brochure lists common household appliances and electronic equipment. Go through the list and fill in the spaces for items you have and use. Total up the kilowatt-hours and you'll have an idea of where your electricity dollars are going.

If you have any further questions about your electricity use, review our other brochures, *Monitoring Electricity User Guide* and *Household Electricity User Guide*, or contact your nearest Flint Energies office.

Electricity is a wonderful solution for living. We're here to assist you in using it efficiently and economically.



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Average monthly kilowatt-hour consumption **Insert kilowatt-hours for items you use each month**

KITCHEN

Blender	2	_____
Broiler	8	_____
Coffee maker, percolator or drip	12	_____
Popcorn popper, conventional or hot air	1	_____
Slow cooker	3	_____
Deep fryer	3	_____
Dishwasher, using drying cycle	35	_____
no drying cycle	20	_____
Freezer, upright manual defrost	155	_____
upright, frost-free chest type, manual defrost	210	_____
chest type, frost-free	110	_____
chest type, frost-free	160	_____
Fry pan	14	_____
Microwave oven	20	_____
Mixer	1	_____
Range, manual-cleaned oven	95	_____
self-cleaning oven	100	_____
Refrigerator/freezer		
1-door manual defrost	54	_____
2-door manual defrost	98	_____
2-door frost-free	150	_____
side-by-side frost-free	180	_____
energy efficient, 2-door manual	54	_____
energy efficient, 2-door frost-free	84	_____
Roaster	5	_____
Toaster, 2-slice	3	_____
4-slice	4	_____
Toaster oven/broiler	18	_____

Trash compactor	4	_____
Waffle iron	2	_____
Waste disposal	3	_____

Total Kitchen Kilowatt-Hour Consumption **Total** _____

LAUNDRY & CLEANING:

Clothes dryer <i>(5 loads a week)</i>	100	_____
Clothes washer <i>(5 loads a week)</i>	7	_____
Iron	5	_____
Sewing machine	1	_____
Vacuum cleaner	3	_____

Total Laundry Kilowatt-Hour Consumption **Total** _____

ENTERTAINMENT/RECREATION:

Radio <i>(3 hours a day)</i>	9	_____
Radio/stereo/ tape-CD player <i>(2 hours a day)</i>	8	_____
Swimming pool pump <i>(see water pump)</i>		_____
Television <i>(4 hours a day)</i>		
black/white, solid-state 12"	4	_____
black/white, solid-state 14"	7	_____
black/white, tube type 12"	14	_____
black/white, tube type 14"	21	_____
color, solid-state 14" – 16"	11	_____
color, solid-state 18" – 19"	13	_____
color, solid-state 23" – 25"	20	_____
color, tube type 14" – 16"	31	_____
color, tube type 18" – 19"	37	_____
color, tube type 23" – 25"	43	_____

Total Entertainment **Total** _____

HEATING & COOLING:

Air conditioner (window unit - 8 hours a day operating time)		
6,000 btu/h	190	_____
10,000 btu/h	320	_____
12,000 btu/h	380	_____
14,000 btu/h	450	_____
16,000 btu/h	510	_____
18,000 btu/h	575	_____
20,000 btu/h	640	_____
Air conditioner (central unit - 8 hours a day operating time)		
1½ ton	540	_____
2 ton	720	_____
2½ ton	900	_____
3 ton	1080	_____
4 ton	1440	_____
5 ton	1800	_____
Electric blanket	24	_____
Fans		
attic	24	_____
ceiling	20	_____
furnace, 1/3 horsepower	30	_____
window, 20"	18	_____
Heat pump (cooling - 8 hours a day operating time)		
2 ton	770	_____
3 ton	1150	_____
4 ton	1535	_____
5 ton	1920	_____
Heat pump (heating - 3 hours a day operating time)		
2 ton	290	_____
3 ton	430	_____
4 ton	575	_____
5 ton	720	_____
Electric heating (central furnace - 3 hours a day operating time)		
10,250 watts	925	_____
15,350 watts	1380	_____
20,490 watts	1845	_____
25,670 watts	2310	_____

Electric heating (individual room, baseboard units - 4 hours)

500 watts	60	_____
1000 watts	120	_____
1500 watts	180	_____
2000 watts	240	_____

Electric heating (portable space heaters - 4 hours)

1000 watts	120	_____
1500 watts	180	_____

Humidifier 14 _____

Water bed, 400 watt heater 85 _____

Total Heating/Cooling

Kilowatt-Hour Consumption Total _____

Note: For an accurate monthly electricity use estimate, remember that heating and cooling equipment are not normally used in the same month. Make estimates on a winter or summer month.

LIGHTING:

Indoor (2 hours a day operating time)

1 - 60 watt bulb fixture	4	_____
3 - 60 watt bulb fixtures	11	_____
1 - 100 watt bulb fixture	6	_____
2 - 40 watt fluorescent bulb fixtures	5	_____

Outdoor (8 hours a day operating time)

60 watt pole light	14	_____
150 watt flood lamp	36	_____

Note: Adjust lighting use for the number of fixtures you have in your home.

Total Lighting

Kilowatt-Hour Consumption Total _____

PERSONAL CARE:

Hair dryer (*hand held, used 10 minutes per day*)

250 watts	3	_____
500 watts	6	_____
1000 watts	13	_____

An electric shaver or toothbrush uses less than 1 kilowatt-hour per year.

**Total Kilowatt-Hour Consumption
for Personal Care** **Total** _____

WATER SUPPLY & HEATING:

Water Pump: Hours of operation (x) horsepower equals kilowatt-hours. Example: A three-horsepower motor on a water pump running for one hour uses three kilowatt-hours (assumes motor efficiency of 75 percent). To determine the electricity used by your water pump motor, check the horsepower of your pump and estimate how many hours per month it runs.

Horsepower __ (x) hours __ = kilowatt-hours _____

Electric Water Heating: The average person uses 15 gallons of hot water per day. This includes hot water for bathing, dishwashing, washing clothes, etc. For the purpose of estimating your electricity consumption, please use the following table. Insert the kilowatt-hours used monthly in the far right-hand column of the row that represents the number of people in your home.

# Of People in home	# of Gallons per month	Average kilowatt-hours per month	_____
1	450	117	_____
2	900	202	_____
3	1350	287	_____
4	1800	374	_____
5	2250	456	_____
6	2700	541	_____

**Total Water Supply/
Heating Kilowatt-Hour Consumption** **Total** _____

**Total Home Appliance
Kilowatt-Hour Consumption** **Total** _____

Average monthly kilowatt-hour consumption figures shown on this chart are based on **normal** appliance use. Your consumption may be higher or lower depending on how you or other persons in your home use the various appliances. For example, the chart states that on average, a 19" solid-state color television uses 13 kilowatt-hours per month if used four hours per day. If you have a television in your home that fits this description, and you know it is on more than four hours per day, you should adjust the kilowatt-hour consumption figure accordingly.

You know the appliances you own and operate. Filling out this chart accurately will help you understand which appliances contribute to your total electric bill.

You can calculate your appliance use and cost as follows: Find the appliance wattage (usually on serial plate). If wattage is not listed, look for the amperage and voltage ratings on the same plate. Multiply amperage (amps) by voltage to get the wattage (watts). Next, multiply wattage by hours you use the appliance each month, and then divide by 1,000.

For example, a 19" color television that is used eight hours per day is 8 hours (x) 30 days equals 240 hours. If the TV's wattage is 110, multiply 240 by 110 which equals 26,400 watts. Divide this by 1,000, and you have the kilowatt-hours used by the TV in one month – 26.4.

How do you translate this or any of the other kilowatt-hour amounts from the chart to dollars and cents? Simply divide the number of kilowatt-hours you purchased on your last bill by the amount of the total bill. This will give you the average cost per kilowatt-hour.

Multiplying this figure by the kilowatt-hours used by any one appliance or all of your appliances will give you an idea where your

electricity dollars go.

If you would like additional information, ask for our *Household Electricity User Guide*, *Heat Pump User Guide*, *Monitoring Electricity User Guide*, and *Home Energy Audit Guide* brochures. If you feel your home's energy efficiency is an issue, ask for a Flint energy audit. Flint Energies also offers EC Home Loans through qualifying contractors to make home energy efficiency improvements. Loan amounts range from \$1,000 to \$15,000 with a fixed interest rate of 9.9 percent. EC Home Loans do not require a downpayment or application fee, and payment periods range from 12 to 120 months.

Saving energy is equivalent to saving money in today's economy, and you can begin to save by reviewing these major areas. Take an energy tour of your home to learn how you may conserve and save.

Windows and Doors: Caulk or weather-strip cracks and air leaks around doors and windows. Consider storm doors and windows or double-paned glass to keep indoor air inside and outdoor air outside. Use the sun to your advantage by using draperies, shutters and awnings to keep sunlight out in summer. Use them in winter to let sunlight in to help warm your home and lighten the burden on your heating system.

Thermostat: Keep thermostats set as low or as high as comfort permits. Each degree that your thermostat is set over 68°F in winter adds about 3 percent to your annual heating costs. Each degree below 68°F saves you about 3 percent. During summer months, keep thermostat setting at 78°F or higher. Consider a clock thermostat to automate temperature control during the day.

Heating/Cooling System: Clean or replace filters as needed and close vents to unused rooms. Insulate ducts and pipes in unheated spaces. When replacing this equipment, be sure to look for a system that is energy efficient.

Water Heater: As a major energy user in your home, this appliance bears special consideration. Try a lower thermostat setting and a water heater jacket. Install water-flow restrictors in showers and faucets. They cut hot water use without discomfort to the user.

Attic, Floors, Foundations and Exterior Walls: These are areas where insulation can help you most. Installing this "weather barrier" in your attic, under floors, around basement, in crawl spaces and around foundation walls may be a comparatively simple, do-it-yourself operation. Let Flint Energies' marketing department advise you on the proper amounts. You may also request a home energy audit.

Use an "energy tour" to determine what you need to do. Remember that heating, cooling and water heating are the largest consumers of energy. Improvements to boost energy efficiency such as caulking, weather stripping and insulation are energy savers and, in some cases, are tax deductible. For more information on conserving energy in these areas, read our *Household Electricity User Guide* and *Heat Pump User Guide* brochures as well.

**Ask about our EC Home Loans
for energy efficiency improvements,
or visit our Web site at
www.flintenergies.com.**

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