



Electricity

User's Guide



Appliance	Approximate Wattage	Estimated Use	Average Operating Cost Per Month in \$	
			kwh	cost @ .0765
KITCHEN				
Blender	385	5 min/day	1	\$0.07
Breadmaker	430	16 hours/month	7	.54
Can opener	125	2 min/day	<1	.02
Coffeemaker – 10-cup automatic drip type	850 – 1500	twice a day, with warmer on 4 hours/day	16–32	1.22–2.45
Dishwasher – total washing, drying and water heating	2000	daily	45	3.44
Washing	200	daily	6	.46
Drying	1000	daily	26	1.99
Water heating	800	daily	13	.99
Energy Star® Freezer – 17 cubic ft. frost-free*	460	continuous	53	4.05
Freezer – 17 cubic ft. frost-free* (old model)	440	continuous	102	7.80
Garbage disposal	445	5 min/day	1	.07
Microwave oven	1500	30 min/day	23	1.76
Mixer	125	2½ hours/month	<1	.03
Oven – conventional	3500	30 hours/month	105	8.03
Oven – self-cleaning feature only		one cleaning per month (3 hours)	4	.31
Range – average large element	2100	30 min/day	32	2.45
Range – average small element	1600	30 min/day	24	1.84
Energy Star® Refrigerator-freezer – 25 cubic ft.*	838	continuous	57	4.36
Refrigerator-freezer – 25 cubic ft., side by side, (old model)*	1270	continuous	86	6.58
Toaster – 2 - 4 slice	700 – 1500	3 min/day	2	.15
Toaster oven	1150	15 min/day	9	.69
Waffle iron	800	3 hours/month	3	.23
BATHROOM				
Bathtub with jets – does not include hot water	75	20 hours/month	1.5	\$0.12
Blow dryer	1200	15 min/day	9	.69
Heat lamp – bathroom ceiling fixture	250	30 min/day	4	.31
Hot rollers	375	30 min/every other day	3	.23
Shaver	10	10 min/day	<1	.02
LAUNDRY ROOM				
Clothes dryer	4800	30 loads/month	91	\$6.96
Iron	1200	8 hours/month	10	.77
Washing machine – includes hot water	640	30 loads/month	91	6.96
HOUSEHOLD ITEMS				
Air cleaner	20	10 hours/day	6	\$0.46
Air compressor – 1 horsepower	1000	5 hours/month	5	.38
Air conditioner*	1100	5 hours/day	165	12.62
Alarm system	6	continuous	4	.31
Ceiling fan	60	6 hours/day	11	.84
Clock	2	continuous	1.6	.12
Computer – including monitor	40	continuous	29	2.22
DVD/VCR player	25	3 hours/day	2	.15
Electric air cleaner – on furnace	50	continuous	36	2.75
Electric blanket*	175	8 hours/day	42	3.21
Fax machine	100	20 hours/month	2	.15
Hot tub – fiberglass, 300 gallons, 102° F*	varies	3 to 4 times/week	321–855	24.56–65.41
Hot tub circulation pump	1000	4 hours/day	120	9.18
Ink jet printer	25	8 hours/month	<1	.02
Laser printer	1000	8 hours/month	8	.61
Lawn mower – electric	1200	6 hours/month	7	.54
Lighting – 100-watt incandescent	100	6 hours/day	18	1.38
Lighting – 40-watt fluorescent tube, 4 ft.	40	6 hours/day	7	.54
Lighting – 18-watt compact fluorescent	18	6 hours/day	3	.23
Lighting – fluorescent torchiere	55	4 hours/day	7	.54
Lighting – halogen torchiere	300	4 hours/day	36	2.75
Radio	10	1 hour/day	<1	.02
Satellite dish	12	continuous	9	.69
Space heater	1500	8 hours/day	360	27.54
Stereo/CD player	50	4 hours/day	6	.46
TV – 19 inch, color	105	6 hours/day	19	1.45
TV – 25 inch, color	125	6 hours/day	23	1.76
TV – big screen, plasma, LCD	300	6 hours/day	54	4.13
Vacuum cleaner	960	30 min/week	2	.15
Water bed – king-size, at 95 degrees in 65 degree room	400	12 hours/day	144	11.01
Water heater*	4500	continuous	476	36.41
Water pump	1000	1 hour/day	30	2.30

*These appliances are controlled by a thermostat and are not "on" continuously.

All costs are based on the current Clark Public Utilities residential rate of 7.65 cents per kilowatt-hour and rounded to the nearest cent.

Figuring your energy costs . . .

CLARK PUBLIC UTILITIES charges 7.65¢ per kilowatt-hour of electricity to its residential customers. With that information, it's easy to figure out the cost of running an appliance. Just find the wattage of the tool or appliance (usually on the side or bottom), and then use this formula:

Appliance wattage **multiplied** by hours the appliance is on, then **divided** by 1000, then **multiplied** by \$.0765 (7.65¢).

Example: $\frac{1500 \text{ watts} \times 8 \text{ (hrs)}}{1000 \text{ watts}} = 12 \text{ (kwh)} \times \$.0765 = 92\text{¢}$

Don't forget that some products, such as irons, water heaters and electric space heaters, are controlled with a thermostat and cycle on and off during operation. Other appliances, such as computers, may show the amperage of the device instead of watts. To convert to watts, multiply amps by volts. The voltage of household outlets is 115 volts.

WATER PUMPS for domestic wells operate off and on throughout the day and night. To estimate the cost of pumping water, you need to have a rough idea of the amount of water you use. The average household uses about 90 gallons of water per person per day. A one-horsepower pump uses about 1,000 watts of electricity when it's running. Domestic pumps deliver approximately 20 gallons of water per minute. You can use the following formulas to figure the cost of pumping water:

To calculate how long the pump is "on":

$90 \text{ gallons} \times \text{number of residents} = \frac{\text{number of gallons used per day}}{20 \text{ gallons per minute}} = \text{"on" time}$

Example:
 $90 \text{ (gallons)} \times 4 \text{ (residents)} = \frac{360 \text{ (gallons/day)}}{20} = 18 \text{ minutes or } .3 \text{ hour}$

To calculate the cost of operating the pump:

$\frac{\text{Horsepower} \times 1000 \times \text{hours}}{1000 \text{ watts}} = \text{kwh} \times \$.0765 = \text{cost per day}$

Example:
 $\frac{1 \text{ (horsepower)} \times 1000 \times .3 \text{ (hour)}}{1000} = .3 \text{ kwh} \times \$.0765 = 2.3\text{¢ per day}$

In this case, the estimated monthly cost for pumping water for a family of four would be 69¢ (2.3¢/day x 30 days). If you use the pump to provide water for livestock or to irrigate, you will need to increase the estimated gallons used per day. Use can vary greatly depending on the type of pump, tank and well.



P.O. Box 8900
Vancouver, WA 98668



The amount of electricity you use in your home is related to family size and living habits. Appliance wattages and operating costs in this brochure are averages only.

About home heating . . .

Electric heat costs vary widely, depending on the size of home, amount of insulation, temperatures, family size and lifestyle. More than half of the annual electric bill for an electrically heated home is usually for heat.

A heat pump can reduce your heating costs by 25 percent to 50 percent (depending on the factors listed above). A heat pump also gives you the added comfort of air conditioning in the summer. Individual room heating systems such as baseboards, wall heaters and ceiling cable heat can operate less expensively than a central forced-air system if rooms not in use are closed off and thermostat settings are lowered.

Weatherizing your home can help to reduce the cost of heating and cooling. For some good waste-trimming tips, call us at 360-992-3355, or visit our website at clarkpublicutilities.com or e-mail us at mailbox@clarkpud.com.

Estimated Typical Annual Heating Costs for an 1,800 sq. ft. Home in Clark County

Clark Public Utilities' recommended Electric Heat Pump	\$532
Standard Electric Heat Pump	\$759
Electric Zonal	\$1,032
Typical Natural Gas Furnace	\$1,088
Wood Stove	\$1,129
Electric Furnace	\$1,433
Typical Oil Furnace	\$2,424
Typical Propane Furnace	\$2,445

Annual heating costs were calculated in January 2009 and are based on these assumptions:

Electricity, 7.65 cents per kilowatt-hour; natural gas, \$1.379 per therm; oil, \$4.25 per gallon; propane, \$3 per gallon; and wood, \$250 per cord.



UNDERSTANDING Your Home Energy Use

How To Reach Us

For Regular Business:
360-992-3000

From La Center and Amboy:
1-800-562-1736

From Portland:
503-285-9141

360-992-3270 (TTY)

To Report Power Outages:
360-992-8000

E-mail:
mailbox@clarkpud.com

Web Site:
www.clarkpublicutilities.com

