Common Household Appliance Energy Use

Listed below are some common appliances, their wattage and an estimate of operating costs. There is also a simple formula for calculating operating costs below.

Appliance	Watts	Hours/Mo	kWh/Mo	Avg. $/Mo
Air Conditioner (Room) 6,000 BTU	750	120 - 730	90 - 548	9.10 - 55.40
Air Conditioner (Room) 9,000 BTU	1050	120 - 730	126 - 767	12.74 - 77.54
Air Conditioner (Central) 2.5 Tons	3500	240 - 730	840 - 2555	84.92 - 258.31
Ceiling Fan	65	15 - 730	1 - 47	0.10 - 4.75
Clock	5	730	4	0.40
Clothes Dryer	5000	6 - 28	30 - 140	3.03 - 14.15
Clothes Washer, Automatic (With Electric Water Heating)	1800	7 - 40	13 - 72	1.31 – 7.28
Clothes Washer, Automatic (With Non-Electric Water Heating)	500	7 - 40	4 - 20	0.40 - 2.02
Coffee Maker	900	4 - 30	4 - 27	0.40 - 2.73
Computer (Monitor & Printer)	200	25 - 160	5 - 32	0.51 - 3.24
Crock Pot	250	8-24	2-6	0.20 - 0.61
Dehumidifier	350	120 - 730	42 – 256	4.25 - 25.88
Dishwasher (With Electric Water Heating)	1500	8 - 40	12-60	1.21 - 6.07
Dishwasher (With Non-Electric Water Heating)	400	8 - 40	3 - 16	0.30 - 1.62
Drill	300	3 - 7	1 - 2	0.10 - 0.20
Electric Blanket	180	30 - 90	5 - 16	0.51 - 1.62
Electric Heater (Portable)	1500	30 - 90	45-135	4.55 - 13.65
Fan (Portable)	115	18 - 52	2 - 6	0.20 - 0.61
Food Blender	390	3 - 5	1 - 2	0.10 - 0.20
Food Freezer (15 cu. ft.)	335	180 - 420	60 – 141	6.07 - 14.26
Frying Pan	1150	10 - 20	12 - 23	1.21 - 2.33
Furnace Fan Motor (Intermittent)	350	160 - 415	56 - 145	5.66 - 14.66
Furnace Fan Motor (Continuous)	350	730	256	25.88
Hair Dryer (Portable)	1000	1 - 10	1 - 10	0.10 - 1.01
Heating Pad	65	15 - 30	1 - 2	0.10 - 0.20
Heat Tape	200	250-500	50-100	5.06 - 10.11
Humidifier (Portable)	100	80 - 540	8 - 54	0.81 - 5.46
Iron (Hand)	1000	1 - 10	1 - 10	0.10 - 1.01
Lighting Single Lamp (60W)	60	17 - 200	1 - 12	0.10 - 1.21
Compact Fluorescent (60W Equiv)	18	17 - 200	.3 – 4	0.03 - 0.40
LED Light Bulb (60W Equiv)	9	17-200	.2-2	0.02 - 0.20

Fluorescent (2 Tube 4 ft.)	100	10 - 200	1 - 20	0.10 - 2.02
Microwave Oven	1300	5 - 30	7-39	0.71 - 3.94
Power Saw	275	2 - 4	.6-1	0.06 - 0.10
Range	2500	10 - 50	25-125	2.53 - 12.64
Refrigerator-Freezer Frost Free (17 cu. ft.)	500	150 - 300	75 – 150	7.58 - 15.17
Refrigerator (Non Frost Free - 13 cu. ft.)	300	190 - 300	57-90	5.76 - 9.10
Sewing Machine	75	4 - 14	.3 - 1	0.03 - 0.10
Television	170	60 - 440	10-75	1.01 - 7.58
Toaster	1150	1-4	1-5	0.10 - 0.51
Stock Tank Heater (1)	1500	160-240	240-360	24.26 - 36.40
Vacuum Cleaner (Portable)	800	2 - 6	2 - 5	0.20 - 0.51
Water Bed Heater	400	150 - 300	60 - 120	6.07 - 12.13
Water Heater Typical Family of 4	3800	100-150	380-570	38.42 - 57.63
Water Heater (Heat Pump Style)	550	100-150	55-83	5.56 - 8.39
Water Pump (deep well - moderate power)	500	10-50	5-25	.51 - 2.53
Hot Tub	6000	30-100	180-600	18.20 - 60.66

The above figures are averages only. Actual usage may differ for each consumer

In order to calculate the average operating cost for any electrical appliance you can use the following formula:

watts/1000 = kW x hours of operation = kWh x kWh rate = cost
Watts can usually be found on the appliance nameplate. If the nameplate lists amps:**volts x amps = watts**

Example: How much does it cost to operate my portable electric heater? Electric heater wattage is usually given on the unit itself, or with the literature that comes with it. An example is 1500 watts. I use the heater an average of 45 hours during winter months, Klickitat County PUD's electric rate is $.1011.

1500 watts/1000 = 1.5 kW x 45 hours of operation = 67.5 kWh x $.1011 = $6.83

Now we have an 8-amp heater. The calculation changes just a bit:

8 amps' x 120 volts' household current = 960 watts/1000 = .96 kW x 45 hours =

43.2 kWh x $.1011= $4.37

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