This information is supplied as an "approximation" guide only. The averages listed for the appliances below will vary depending on size, efficiency and individual energy use habits. The" appx. kwh" column is the average consumption of Kilowatt hours permonth of a family of 4 based on studies by the United States Department of Energy.

$$
\frac{\text { Watts } X \text { hrs. used }}{1000}=k W h ' s / k W h ' s ~ X ~ \$ 0.121=\text { Cost }
$$

Calculations for average monthly appliance operating costs are:


|  | Avg. | Avg. Hrs. | Appx. kWh | Number | Est. | Est. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Watt. | Used/Mo. | Used/Mo. | of Appl. | Cost/Mo. | Cost/Mo. |
| KITCHEN |  |  |  |  |  |  |
| Refrigerator/Freezer |  |  |  |  |  |  |
| Refrigerator 2003 or newer | 400-700w |  | 50 |  | \$6.05 |  |
| Refrigerator (up-right) pre 2000 | 500-700W |  | 150 |  | \$18.15 |  |
| Refrigerator (Side-by-side) | 600-1400 |  | 265 |  | \$32.07 |  |
| 16 cu . ft. - 20 cu . ft. frost free < 10 yrs . old | 500W |  | 100 |  | \$12.10 |  |
| Mini Refrigerator | 900w |  | 27.5 |  | \$3.33 |  |
| Chest freezer 15cu. Ft. | 440 |  | 75 |  | \$18.15 |  |

COMMENTS: Refrigerators and freezers will differ greatly depending on cu.ft., usage and the age of the applicance. It is also very important to keep any refrigerator/freezer defrosted and the coils clean. Temperature setting could have a big affect on electric use please check.

| Range with Oven | 12000 W | 18 | 81 |  | $\$ 9.80$ |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Microwave Oven | 1300 W | 12 | 15 |  | $\$ 1.82$ |  |
| Air Fryer | 1600 W | 18 | 29 |  | $\$ 3.51$ |  |
|  |  |  |  |  |  |  |
| Dishwasher | 1200 W | 60 | 72 |  | $\$ 8.71$ |  |
| Coffee Maker | 1000 W | 30 | 30 |  | $\$ 3.63$ |  |
| Toaster | 1150 W | 1 | 1 |  | $\$ 0.12$ |  |
| COMMENTS: A Range's usage can increase dramatically during the holiday seasons, or family get-togethers. |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| WATER HEATERS | 4500 | 90 | 405 |  | $\$ 49.01$ |  |
| $30-50$ gallon | 4500 | 88 | 440 |  | $\$ 53.24$ |  |
| $50-80$ gallon | 4500 | 93 | 512 |  | $\$ 61.95$ |  |
| $80-150$ gallon |  |  |  |  |  |  |
| Based on average family of 4 |  |  |  |  |  |  |

COMMENTS: The cost of opperating water heaters vary because of the differing levels of efficiency in particular brands and styles. The above water heating calulations are based on an average family of 4 . There are ways to cut down on water heating costs. Make sure the upper element is always 5 degrees above the lower. Set the temperature only as high as needed to acomplish your daily tasks. A thermostat set at 140 degrees as opposed to 120 , will cost $\$ 10-\$ 15$ more per month! If you have a leaky faucet dripping at a rate of 30 drips per minute, this can cost you $\$ 2$ - $\$ 3$ per month OR MORE! If you have an older, less efficient model you can save a surprising amount of energy by using "tank blankets" and insulating the hot pipes where possible.

| LAUNDRY |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Clothes Dryer (Per/load) | 4500 | 20 loads @1/2 hr | 60 |  | $\$ 7.26$ |  |
| Washing Machine HOT WATER MORE | 500 | 20 loads @1/2 hr | 10 |  | $\$ 1.21$ |  |
| Washing machine 1,000 rpm Newer | 500 | 6 loads = 1 kwh | 4 |  | $\$ 0.48$ |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| COMFORT CONDITIONING |  |  |  |  |  |  |
| Room AC 5,000 BTU's | 833 | 360 | 90 |  | $\$ 10.89$ |  |
| Room AC 10,000 BTU's | 950 | 360 | 171 |  | $\$ 20.69$ |  |
| Room AC 12,000 BTU's | 1100 | 360 | 198 |  | $\$ 23.96$ |  |
| Room AC 15,000 BTU's | 1500 | 360 | 246 |  | $\$ 29.77$ |  |

## COMFORT CONDITIONING CONT.

| Room Heater 500 Watts | 500 | 360 | 180 | \$21.78 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Room Heater 1000 Watts | 1000 | 360 | 360 | \$43.56 |  |
| Room Heater 1500 Watts | 1500 | 360 | 540 | \$65.34 |  |
| Electric Blanket | 100 | 69 | 7 | \$0.85 |  |
| Dehumidifier | 800 | 210 | 192 | \$23.23 |  |
| Ceiling Fan WATTAGE L/M/H | 15/40/75 | 240 | 24 | \$2.90 |  |
| Attic Fan (house) | 400 | 240 | 96 | \$11.62 |  |
| Humidifier | 177 | 72 | 13 | \$1.57 |  |
| HOME ENTERTAINMENT |  |  |  |  |  |
| Radio | 5 TO 70 | 100 | 7 | \$0.85 |  |
| DVD or VCR | 15 | 60 | 0.9 | \$0.11 |  |
| 53"-61" Projection | 204 | 180 | 36 | \$4.36 |  |
| 42" LCD HDTV Flatscreen | 203 | 180 | 37 | \$4.48 |  |
| LCD or Plasma 50" | 545 | 180 | 98 | \$11.86 |  |
| Color television 32" | 150 | 180 | 27 | \$3.27 |  |
| Cable Box | 14 | 720 | 10 | \$1.21 |  |
| Direct TV box - DVR | 35 | 720 | 25 | \$3.03 |  |
| Laptop in use | 26 | 720 | 19 | \$2.30 |  |
| Laptop plugged in charging | 2 | 720 | 1.4 | \$0.17 |  |
| Computer W/monitor | 250 | 120 | 30 | \$3.63 |  |
| COMMENTS: Most of the above items have a "sleep mode". This means they will consume a small amount of electricity even when they are not being used, but are still plugged in. |  |  |  |  |  |
| LIGHTS |  |  |  |  |  |
| LED 9w (60w equivalent incandescent) | 9w | 100 | 0.9 | \$0.11 |  |
| LED 13w (100w equivalent incandescent) | 13 | 100 | 1.3 | \$0.16 |  |
| Mercury Yard light (Photo Cell) | 200 | 360 | 72 | \$8.71 |  |
| Christmas Lights |  |  |  |  |  |
| C7 LED Bulb (50 bulb set) | 2.5 | 360 | 0.9 | \$0.11 |  |
| C7 LED Bulb (100 bulb set) | 7.2 | 360 | 2.6 | \$0.31 |  |
| Mini lights (300 lights=110W) | 110 | 180 | 19.8 | \$2.40 |  |

COMMENTS: While most sets of $x$-mas lights do not individually add up to a significant amout of usage, multiple sets used for a holiday season, along visitors and family functions can often result in a high Jan. or Feb. light bill. Timers are a great tool to make sure you have you $x$-mas display on only when people are awake to see them. This can often cut the cost of operation by nearly $1 / 3$ ! Make sure and power strips or timers are approved for out-door use. Calculations
are based on 6 hrs . per/day.

| MISCELLANEOUS |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Hot Tub (Insulated/Covered) | 5000 | SUMMER | \$20 TO 30 | 35 TO \$55 | inter |  |
| Hot Tub Pump | 1000 | 45 | 45 |  | \$5.45 |  |
| Hair Dryer | 1000 | 30 | 30 |  | \$3.63 |  |
| Water Pump (1/2 H.P.) | 1320 | RULE OF THUMB 15 KWH PER PERSON |  |  |  |  |
| Oxygen Concentrator (300w-600w) | 300 | 248 (8 hours/day) | 74 |  | \$8.95 |  |
| Cell phone charger ( ( on charging) | 0.03 | 720 | 0.03 |  | \$0.00 |  |
| Pool Pump | 1300 | 360 | 468 |  | \$56.63 |  |
| Heat tape (30ft.) ( 5 watts per ft) | 150 | 720 | 108 |  | \$13.07 |  |
| Fish Aquarium (20 watt pump) | 20 | 720 | 14 |  | \$1.69 |  |
| Fish Aquarium (100 watt pump) | 100 | 720 | 72 |  | \$8.71 |  |
|  |  |  |  |  |  |  |
| NOTE: All homes have "non-identified miscellaneous usage" (est. \$5-\$20 per month) |  |  |  |  |  |  |
| depending on house size, number in family, household items, etc. |  |  |  |  |  |  |
| **Add estimated miscellaneous usage for your home |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| kWh Rate: | 0.121 |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  | Availability Charge |  |  |  | \$32.00 |
|  |  | 4\% MI Sales Tax |  |  |  |  |
|  |  | TOTAL |  |  |  |  |
| Amps $x$ Voltage(usually 120) $=$ Watts | $1000 \mathrm{Watts}=1 \mathrm{kWh}$ |  |  |  |  |  |

