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Steps in the Solar Electricity Series

1. Introduction
2. Building and Site Assessment
3. Conservation and Efficiency
4. System Components
5. System Sizing
6. Costs
7. Installation

8. Electricity Use Worksheet

STEP 8: ELECTRICITY USE WORKSHEET

Address: _____ Calculated by: _____ Date: _____

| Electrical Device | * Wattage (Volts x Amps = Watts) | X | # of Hours Used Per Day (when used) | X | # of Days Used Per Year | = | Watt-hours Used Per Year | = | Divide by 1,000 = kWh | Kilowatt-hours (kWh) Used Per Year |
|--|----------------------------------|---|-------------------------------------|---|-------------------------|---|--------------------------|---|-------------------------|------------------------------------|
| Example: Flat Screen TV | 120 watts | X | 2 | X | 269 | = | 64,560 | = | $\frac{64,560}{1,000}$ | 64.56 kWh |
| Example: Dishwasher (not using the drying feature) | 1200 watts | X | 1 | X | 104 | = | 124,800 | = | $\frac{124,800}{1,000}$ | 124.8 kWh |
| | | X | | X | | = | | = | $\frac{\quad}{1,000}$ | |
| | | X | | X | | = | | = | $\frac{\quad}{1,000}$ | |
| | | X | | X | | = | | = | $\frac{\quad}{1,000}$ | |
| | | X | | X | | = | | = | $\frac{\quad}{1,000}$ | |
| | | X | | X | | = | | = | $\frac{\quad}{1,000}$ | |
| | | X | | X | | = | | = | $\frac{\quad}{1,000}$ | |



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| Electrical Device | Wattage | X | Hours Used/Day | X | Days Used/Year | = | Watt-hours | ÷1,000 = | KWh Used/Year |
|--|---------|---|----------------|---|----------------|---|------------|--------------------------|---------------|
| | | X | | X | | = | | <u> </u> 1,000 | |
| | | X | | X | | = | | <u> </u> 1,000 | |
| | | X | | X | | = | | <u> </u> 1,000 | |
| | | X | | X | | = | | <u> </u> 1,000 | |
| | | X | | X | | = | | <u> </u> 1,000 | |
| | | X | | X | | = | | <u> </u> 1,000 | |
| | | X | | X | | = | | <u> </u> 1,000 | |
| | | X | | X | | = | | <u> </u> 1,000 | |
| | | X | | X | | = | | <u> </u> 1,000 | |
| | | X | | X | | = | | <u> </u> 1,000 | |
| Total kilowatt-hours (kWh) Used Per Year | | | | | | | | | |
| Divide by 12 for Average KWh Used Per Month Use this number for the Solar System Sizing Exercises in Factsheet 5. | | | | | | | | | |

* An electrical device has a metal plate/sticker showing **wattage** on or near the back or side. If not shown, use the amperes (amps) number times the voltage to get wattage.
Most U.S. appliances use 120 volts. Larger appliances (electric clothes dryers and cooktops) use 240 volts.

- **Refrigerators:** Because they cycle on and off to maintain a set temperature, divide the total time the refrigerator is plugged in by 3.