



Solar Assessment Worksheet



Measuring Items You Can't Plug Into the Kill-A-Watt meter- Some items you can't plug into the meter. For these items..sorry folks..it's time for some math. Don't worry, its simple math. The first thing to do is locate on the device a tag that lists the amount of power it draws. It probably isn't going to tell you in watts. You will probably see a listing for volts and amps. To convert this to watts, multiply the volts times the amps.

Exp. Tag says 120VAC .4A

Multiply $120 \times .4 = 48$

48 is your answer in Volt Amps. To convert to watts, multiply by .85 (don't ask, just do it).

$48 \times .85 = 40.8$ Watts

Just like in the previous examples, 40.8 watts is the instantaneous load the device will draw. If you leave the device on for an hour, it will draw 40.8 Watt/Hours.

Some electric motors like to throw you for a real loop, they list the power in horsepower. This table will give you an idea of the wattage with which you can figure your usage:

Horsepower	Watts
1/8	93
1/4	185
1/3	250
1/2	375
3/4	560
1	745
2	1490
3	2235

You'll notice we've mentioned and worked with Renogy on this project. When I begin a project for the Tin Hat Ranch I look for the vendors that will supply the best products for a reasonable price with good customer service. In other words, the stuff you see in our videos and on our website is the stuff I buy for myself. In the case of a small to medium off grid solar system Renogy is one of the best. They've actually got folks that you can call and talk to through every step of the process, from pre-sales to after sales technical support. I used every aspect of their support and the experience has been great. While you can use the information in this form to determine your solar needs and go anywhere with it, I suggest giving Renogy a shot. [Click here for their website](#) or give them a call at 800- 330-8678.