Guided Worksheet to Home Energy Use Analysis

The last big question is "What in my house accounts for the energy being used?" On the following pages there is a table which lists many household systems and appliances and estimates of their monthly KWH usage. It is very important to remember, however, that these numbers are only estimates, and due to the wide range of conditions which vary from home to home it is very difficult to get a good estimate which is accurate for everyone. Used as a rough guide, the numbers are helpful.

A more accurate estimate of the appliances in your home can be gained by using the following formula to determine the actual KWH usage of the item in question.

$$\frac{\text{Wattage} \times \text{Hours of Use(per month)}}{1{,}000} = \text{kilowatt-hours}$$

Using the estimates, go through the list and insert the KWH in the space provided for each item used in your home. Total the columns, adding estimated usages for any appliances you have which,are not listed, and you have an idea about where your energy is going.

This worksheet is especially useful as a tool to compare different types of electric appliances and to possibly point out some wasteful habits or devices you can live without.

Appliance Usage Worksheet	**Ave. Monthly kWh**
Kitchen	
Blender	2 _____
Broiler	8 _____
Coffee Maker	12 _____
Corn Popper	1 _____
Crock Pot	3 _____
Deep Fryer	3 _____
Dishwasher	
(using drying cycle)	35 _____
(no drying cycle)	20 _____
Freezer, upright,	
manual defrost	155 _____
Freezer, upright,	
frost-free	210 _____
Freezer, chest-type	
manual defrost	110 _____
Freezer, chest-type,	
frost-free	210_____
Fry Pan	14 _____
Microwave Oven	20 _____
Mixer	1 _____
Range, manual clean oven	95 _____
Range, self-clean oven	100 _____
Refrigerator w/freezer	
12 cu. ft.	61 _____

12 cut. ft., frost-free	102	_____
14 cu. ft.	95	_____
14 cu. ft., frost-free	160	_____
16 cu. ft., frost-free	170	_____
18 cu. ft., frost-free	188	_____
20 cu. ft., frost-free	225	_____
22 cu. ft., frost-free	250	_____
24 cu. ft., frost-free	270	_____
Toaster Oven/Broiler	18	_____
Trash Compactor	4	_____
Waffle Iron	2	_____
Garbage Disposal	3	_____
Total kWh Consumption in the Kitchen		_____

Home Entertainment & Recreation

Radio (3 hrs./day)	4	_____
Radio/Phono (2 hrs./day)	8	_____
Tape Player (2 hrs./day)	1	_____
VCR	2	_____
TV (4 hrs./day)		
19" B&W, solid state	9	_____
19" Tube-type	23	_____
18-19" color, tube-type	37	_____
23-25" color, solid state	20	_____
23-25" tube-type	43	_____
Total kWh Consumption for Entertainment		_____

Heating and Cooling

Air Cleaner	18	_____
Air Conditioner (8hrs./day)		
Window		
6,000 btu/hr	190	_____
10,000 btu/hr	320	_____
14,000 btu/hr	450	_____
18,000 btu/hr	575	_____
20,000 btu/hr	640	_____
Central		
11/-ton	540	_____
2-ton	720	_____
21/-ton	900	_____
3-ton	1080	_____
4 ton	1440	_____
5 ton	1800	_____
Heat Pump (8hrs./day)		
Cooling		
2-ton	650	_____
3-ton	900	_____
4-ton	1200	_____

5-ton	1800____
Heating	
2-ton	900____
3-ton	1200____
4-ton	1800____
5-ton	2200____
Electric heating (8hrs./day)	
10,250 watts	1512____
15,350 watts	2040____
20,490 watts	3017____
25,670 watts	3556____
Baseboard units (8hrs./day)	
500 watts	120____
1000 watts	240____
1500 watts	360____
2000 watts	480____
Portable Space Heater (8hrs./day)	
1000 watts	240____
1500 watts	360____
Electric Blanket	24____
Water Bed Heater	85____
Jacuzzi/Hot Tub Heater (8hrs./day)	
1500 watts	360____
6000 watts	1440____
Fans (8hrs./day)	
Ceiling Fan	
high speed	24 ____
medium speed	18 ____
low speed	15 ____
Window Fan, 20"	22 ____
Furnace, 1/3-hp	60 ____
Furnace, 1/-hp	90 ____
Humidifier	14 ____

Total kWh Consumption for Heating and Cooling _____

Lighting

Indoor	
Ave. Home Usage	100-200____

For more accuracy count fixtures & wattage and use kWh formula on page 9.

Outdoor (based on 8hrs./day usage)	
60 watt	14 ____
50 watt	36 ____
175 watts security light*	70 ____

*Basic security light service for Laurens Electric members is not billed through the meter. Add in this line only if you have installed additional security lighting on your own.

Total kWh Consumption for Lighting _____

Miscellaneous Household Uses

Hair dryer used for 10 minutes daily	
500 watts	6 _____
1000 watts	13 _____
Curling Iron	6 _____
Clothes Dryer (5 loads/wks)	100_____
Clothes Washer (5 loads/wk.)	7 _____
Iron	5 _____
Sewing machine	1 _____
Vacuum Cleaner	3 _____

Total kWh Consumption for Misc. Household _____

Water Supply and Heating

Water Pump: To determine the amount of electricity used by your water pump motor, check the horsepower of your pump and estimate how many hours per month it runs. Then follow this formula:
HP x hours x .85(motor efficiency) = kWh.
Water Heater: The average person uses 20 gallons of hot water per day. This includes hot water for bathing, dishwashing, etc. For estimating your consumption, please use the following table:

People Ave.	gals./month	kWh
1	600	117
2	1200	234
3	1800	352
4	2400	469
5	3000	586
6	3600	704

Total kWh Consumption for Water Supply/Heating_____