Miller Solar

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Instructions for Load Chart:

Any time a battery system is called upon to provide power to a home for a desired period of time, the goal is only achievable if you know how much power and energy is needed. There are two ways to learn this: live the lifestyle you want to support and record how much energy you consume, or calculate how much energy you are going to need.

If you have not lived and recorded your desired lifestyle, then someone has to make the calculations. Fortunately we have done a lot of this. We have spreadsheet tools developed over the years that are very accurate--if good input is provided. See the link below for our letter to prospective off-grid clients for more explanation on how we approach this task.

Off-grid client introductory letter.

The process requires that users think carefully about the electric equipment (loads) they want to power when the grid is not available. It necessitates listing all of the power-using devices and how much time they will be used on average. We have an entry sheet that we provide to help you make this list.

This spreadsheet is an invaluable tool to help us determine the correct size off-grid electric system for you.

The more accurate the information is, the more likely it is we will provide a properly sized system for you.

If you have any questions, let us know. If you can't fill in all of the information, we will help make some educated guesses.

- 1 On the following page is a chart that lists common household appliances.
- 2 Inside of the shaded area, list all of the appliances and lighting devices you have or will have. If you have an appliance not listed, put it in a blank row at the bottom of the list.
- 3 Fill in the column for the watts each appliance draws if you know it. If you don't know the wattage, fill in all the information you can in the description column, including make, model, vintage, size, etc.

Don't worry about overflowing the column width. Put in as much information as you can.

4 In the hours per day and hours per week column, fill in as accurately as you can the values. It may help if you monitor your current activities for a day or two in order to be more accurate. If you put in too few hours, your system will be undersized. If you put in too many hours, your system will be more expensive.

Consider these values carefully.

If you have any questions, let us know. If you can't fill in all of the information, we will help

5 make some educated guesses.

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17395 Oak Rd. Atascadero, CA 93422 WORKSHEET Client: Project: System Sizing Date: Revision:

Loads

Loads				Days/	
Item	Quantity	Watts	Hrs/Day	Week	Typical Wattages
Bath fans					100
Clock Radio					10
Computer					50
Computer: Monitor					50
Computer: Printer					200
Entertainment: CD Players					20
Entertainment: Satellite Recever					75
Entertainment: Stereo					312
Entertainment: Television					130
HVAC					4840
Kitchen: Blender					300
Kitchen: Coffee Maker					300
Kitchen: Dishwasher					1300
Kitchen: Disposal					350
Kitchen: Freezer					400
Kitchen: Hood Vent					300
Kitchen: Microwave Oven					1500
Kitchen: Refrigerator					140
Kitchen: Stove/range					1200
Kitchen: Toaster					1100
Kitchen: Wine cooler					268
Laundry: Gas Clothes Dryer					500
Laundry: Washing Machine					800
Lighting: Florescent					30
Lighting: Incandescent					50
Lighting: LED					7
Oven					1000
Room Fans					100
Telephone					5
Vacuum Cleaner					500
Water: Booster Pump					2640
zInverter's min. running power	1		24	7	34
51					