

# FEATHER RIVER SOLAR ELECTRIC

5575 Genesee Road • Taylorsville, CA 95983

530.284.7849 (6544 FAX)

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**Name:**

**Address:**

**Phone Number:**

**Email:**

<b>Appliances, Lights, Loads:</b>	<b>Description</b>	<b>Quantity</b>	<b>Hrs used /day or week</b>	<b>Watts</b>
Inside lights				
Outside lights				
Blender, food processor				
Toaster oven				
Microwave oven				
Coffee maker				
Crock pot				
Toaster				
Convection oven				
TV (Type and size)				
Stereo				
Satellite				
DVD Player				
CD player				
Other				

**Office:**

Computer/monitor	Laptop?			
Printer				
Scanner				
Fax machine				
Router				
Cordless phone				
Other				

**Large Appliances:**

Freezer, size				
Refrigerator, size, features				
Washing Machine				
Clothes Dryer				
Dishwasher				

**Large Appliances Cont:**

Range/oven				
Tank-type water heater, gas				
On demand gas water heater				12 watts, 24/7
Kerosene/oil heater				
Propane heater				
Well pump				

**Miscellaneous:**

Hair Dryer				
Curling iron				
Electric toothbrush				
Aquarium				
Electric blanket				
Electric clock				
Window fan				
Ceiling fan				
Vacuum cleaner, type				
Window A/C (BTUs)				
Central A/C (tons)				
In-floor heating				

**Shop Tools:**


**Any Other Loads:**


**Future:**


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### **PLANNING FOR AN OFF-GRID SOLAR ELECTRIC SYSTEM**

Before starting the process of designing a system for your off-grid home with solar energy, we need to know your total electricity usage. Employing low-cost and easy-to-implement efficiency measures will help in designing the most cost efficient system. To help us provide recommendations for your system's type and size, please complete the attached Off-grid Power Use Form and return your completed form via fax 530.284.6544 or scan and email to [frenergy@psln.com](mailto:frenergy@psln.com).

We need to know ALL the loads (electricity uses) that will consume even the smallest amount of power. The best way to do this is to stand in a room (in your mind if it's not built yet!) and look around at ANYTHING that is plugged in, lighting or is utilizing electricity like a water pump, attic fan, heat tape, anything. Also imagine yourself in the garage, guesthouse, greenhouse, shop, etc. If it uses power, we need to know about it to design your system. In an effort to save you thousands of dollars, we spend the extra time up front designing a specific system for *your* needs rather than suggest some ballpark sized "kit". At the end of this process, we will end up with an average daily KWhr consumption for your home that we all agree on.

Designing an off-grid solar electric system generally means making thoughtful choices with your electrical appliances, lighting, etc. You can be frugal by choosing not to have a hot tub or a 60" flat screen TV with 16 speakers or a 28 cubic foot frig with water and ice in the door. If you have to have A/C, consider an evaporative cooler. Most things that heat (EG water heater, range, oven, clothes dryer, hot tub, portable space heater) are usually powered with propane. A solar electric system is quite capable of powering these appliances, but at a significantly higher cost. *Some* of the above can be included without too much change in system size, but must be discussed ahead of time.

It is highly recommended that the appliances you choose be Energy Star rated. It has been shown that on average, the extra dollar you spend on an Energy Star appliance will save you \$3-4 in the cost of your system... its a good investment.

Feel free to ask questions about any aspect of this design process.

Thanks, Bill