

**California Energy Commission  
Solar or Wind Energy System Credit Worksheet**

**Example**

This example shows you how to calculate the Rated Peak Generating Capacity ("RPGC") of your solar and/or wind energy system using the Commission's Solar or Wind Energy System Credit Worksheet. It also assists you in determining whether your solar and/or wind energy system is "certified" by the Commission. This example is based on the information contained in the following sample invoice. The date of installation is the date of the building permit final inspection signoff (not shown here). The following example is for a solar energy system.

INVOICE			
YOUR SOLAR COMPANY 123 MAIN STREET YOUR TOWN, CA 95123		Date: <u>August 10, 2002</u>	
<u>Bill to</u> Jane Doe 1516 Ninth Street Sacramento, CA 95814		<u>Physical address of Installation</u> Jane Doe 1516 Ninth Street Sacramento, CA 95814	
QTY	DESCRIPTION	Unit Price	Total Cost
40	Kyocera KC 120-1 (Photovoltaic modules)	\$ 595 ea	\$11,900
2	Xantrex/Trace ST2500 (Inverters)	\$2,500 ea	\$ 5,000
		Subtotal	\$16,900
		Tax @7.5%	\$ 1,267.50
		<b>TOTAL</b>	<b>\$18,167.50</b>

Please note that the prices shown are examples only, and should not be considered "typical" or real prices. Also note that in this example the costs of labor, wiring, support structures, etc. are not included.

**A. System Information**

1. Purchaser's Name and address.....	<u>Jane Doe</u> <u>1516 Ninth Street, Sacramento, CA 95814</u>
2. Address of Installation .....	<u>Same as above</u>
3. Installer's Name and address.....	<u>Self-installed</u>
4. Date System Purchased: .....	
a. Photovoltaic Modules: .....	<u>August 10, 2002</u>
b. Wind Turbines: .....	<u>not applicable</u>
c. Inverters:.....	<u>August 10, 2002</u>
5. Date System Installed.....	<u>Dec.10, 2002</u>
6. System type: .....	<input checked="" type="checkbox"/> Photovoltaic <input type="checkbox"/> Wind-driven <input type="checkbox"/> Both
7. System Brand Name (if any):.....	<u>None</u>
8. System Model # (if any): .....	<u>None</u>

(Example continued on following page)

## B. Photovoltaic Energy Systems

A Make and Model #	B Certification #	C # of Modules	D PTC Rating (watts)	E=C x D Output (watts)
Kyocera KC 120-1	PV101	40	105.7	4228
Total PV Electrical Output of System:				4228 watts

## C. Wind-Driven Energy Systems

A Make and Model #	B Certification #	C # of Turbines	D Power Rating (watts)	E=C x D Output (watts)
None				
Total Wind Electrical Output of System:				0 watts

## D. Inverters

A Make & Model #	B Certification #	C Quantity	D Power (watts)	E Efficiency (%)	F=CxD (watts)	G=ExF (%-watts)
Xantrex/Trace ST2500	IN059	2	2500	94	5000	4700
Totals:					5000	4700
Average Peak Inverter Efficiency of the System						
= (Total Column G) / (Total Column F)						
= ( 4700 ) / ( 5000 ) = 94.0 %						

## E. Calculation of Rated Peak Generating Capacity of System:

1. Enter total PV Electrical Output from Section B, Column E. ....	4228	Watts
2. Enter Total Wind Electrical Output from Section C, Column E. ....	0	Watts
3. Add Line 1 and Line 2. ....	4228	Watts
4. Enter Average Peak Inverter Efficiency from Section D. ....	94	%
5. Multiply Line 3 by Line 4. This is the Rated Peak Generating Capacity of System	3974.3	Watts

In this example, the taxpayer would enter the Rated Peak Generating Capacity of 3974.3 on Part III, line 1 of FTB Form 3508. The taxpayer would then attach the completed worksheet to FTB Form 3508 and remit it with his or her state tax returns.

## Is the System Certified?

In this example, the solar energy system uses forty Kyocera America KC120-1 photovoltaic modules and two Xantrex/Trace ST2500 inverters. The solar energy system uses no other photovoltaic modules or inverters. The system was purchased on August 10, 2002 and the installation was completed on December 10, 2002. The Kyocera America KC120-1 photovoltaic module is listed on the Commission's List of Approved Photovoltaic Modules for the 2002 tax year and was certified at the time the system was purchased and installed. (This photovoltaic module has a beginning certification date of 11/23/99 and an ending certification date that is "current"; meaning the module is currently certified.) The Xantrex/Trace ST2500 inverter is listed on the Commission's List of Approved Inverters for the 2002 tax year and was certified at the time the system was purchased and installed. (This inverter has a beginning certification date of 6/30/00 and an ending certification date that is "current"; meaning the inverter is currently certified.)

The solar energy system is certified by the Commission, since it only uses photovoltaic modules and inverters that are listed by the Commission and were certified on the date the solar energy system was purchased or installed. Check "Yes" on Part I, line 6 of FTB Form 3508.