

TEXAS SOLAR POWER COMPANY

1703 West Koenig Lane, Austin, Texas 78756
 Phone: (512) 459-9494 Fax: (512) 451-5934
 Toll Free: (866) 459-9494
 Web: txspc.com
 Email: info@txspc.com

Texas Solar Power Company (TXSPC) specializes in the design and installation of renewable energy systems. We provide an alternative, sustainable power source for residential, commercial and government clients. TXSPC offers outstanding service using high quality products delivered at competitive prices.



Photovoltaic (PV) is clean energy from the fuel source that belongs to all of us - the sun.



We carry everything you need for your renewable energy project. TXSPC is an authorized dealer of SolarWorld, Sharp Solar, and Kyocera modules as well as SMA and Fronius products. As technology in the renewable energy industry is dynamic, we are constantly evaluating new products and manufacturers to offer the best package to the environmentally and energy conscious public.



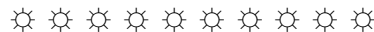
Our services are available around the world—wherever there is a need for photovoltaics.



Sales • Design • Installation

Owners Craig Overmiller, Architect, and Joe Garcia have been in the renewable energy field since 1995 helping home and business owners towards energy independence. The TXSPC team of designers and installers are committed to professional presentation and quality work.

Residential • Commercial



Texas Solar Power Company headquarters is a working example of integrating both a wind turbine as well as a hybrid grid-tie solar system.

- The 1st floor is an SMA Sunny Island grid-tie system with back-up batteries.
- The 3rd floor is an Outback stand-alone system.
- We also have two Air 403 wind generators on the roof for additional power.



Owner is
NABCEP Certified



At Texas Solar Power Company, YOU have the POWER.



How Much Solar Power Do I Need?

Step #1: First things first, CONSERVATION.

Before you begin to “size” a solar system for your existing home, Texas Solar Power Company recommends that you implement several energy management and conservation techniques in order to reduce your overall need for energy:

- Change all incandescent and halogen light sources to compact fluorescent lighting (CFLs). Home Depot is a great source for these indoor or outdoor lamps and fixtures. Most compact fluorescent lamps will fit into existing lamp sockets. This will result in double savings – fewer watts used to light a space AND less A/C used to cool down the air around those little heat lamps!
- Wherever possible, add additional insulation to your attic walls and floors. Use pipe insulation on heated water pipes. Insulate your hot water heater.
- Add shading devices and/or solar screens to your east, south, and west-facing windows. However, during winter months, you may want to take off the south-facing screens in order to *gain* solar heat.
- If you have old appliances, consider upgrading. Today’s appliances are *much* more energy efficient than those made as few as 5 years ago. We highly recommend that you purchase only Energy Star rated appliances and air conditioning equipment.
- Use natural gas or propane appliances where possible for cooking, central heating, water heating, and for your clothes dryer. Better yet, dry your clothes via solar (clothesline)!

Step #2: What do you want to do with the power?

If you are already served by a power company, it is considerably cheaper to purchase a “grid-tie” system. If you want to be totally independent of your energy company and/or you need electricity in a location that is not yet served by your energy company and it would be very expensive to connect, you will want to consider a “Battery Stand-Alone” system. A “Battery Back-up” system is a combination of the two systems, where batteries are used as a back up for a power outage in an emergency situation.

- ❑ **Grid-tie:** You generate power during the day (while the sun is out) so if you’re producing more than you’re using, your meter will run backwards. Your energy company supplies the power you use at night, so your meter will run forwards. This push-pull will “net” at the end of the month with a balance either in the customer’s favor or in the electric company’s favor. In this dynamic, the power company acts as a huge energy storage device/battery.
- ❑ **Battery Stand-Alone:** Along with the solar panels and support system, you will need to purchase batteries. Your solar panels charge the batteries and you then draw energy needed for your house from the batteries. You would need to determine all energy needs and make sure your system is large enough to acquire and store enough energy.
- ❑ **Battery Back-Up:** This is a hybrid system that is useful when power goes out. You can pre-determine which appliances should never be without energy, and then store that needed power. For example, you might have emergency back up for your refrigerator, computer, and 4 lights.

Step #3: Consider how much power you actually use.

Realistically, you will probably look to *supplement* your power needs via solar (“grid-tie” as described above) rather than use a Battery Stand-Alone system. If you want more information about battery back up and true system sizing, please let us know – we have an overview you can use to determine your full power needs. However, if you simply want an understanding of how much electricity you use and how much a solar system will produce, follow the steps below.

One way to look at the math:

1. Solar systems are generally sized in 1 kW – 6 kW (and larger) systems. A typical size is 3 kW.
2. 3 kW, or 3 kilowatts = 3,000 watts
3. A 3 kW system will generate around 3,000 DC watts per hour
4. Multiply the per hour generation by 5.4 which is an average number of sun hours in a day (3,000 x 5.4 = 16,200)
5. Multiply the new total by the average number of days in a month (16,200 x 30.5 = 487,620)
6. Multiply the new total by .77. This is the “derating” factor, or the amount of energy lost when DC current is turned into AC current. (487,620 x .77 = 375,467)
7. So, a 3 kW system will generate about 375,467 watt-hours per month, or about 375 kWh.
8. Now compare this number with the kWh usage noted in your electric bill. How many kWh do you use in a typical month? Twice this amount? Then you would save roughly ½ your electric bill if you installed a 3 kW system.
9. Consider how much money you save per month to figure out how long it will take to pay off your system.

Another way to look at the math – in reverse:

If you want to get all of your energy needs met through solar power (and get a “0” bill from your electric company) calculate how large a system you will need by following the steps below. Before you start, choose an average electric bill. Look for how many “kilowatt hours” you consumed. This is generally expressed as “kWh”.

Direction	Example	YOUR info
Note the average number of kWh you use per month	550	
kWh X 1000 = total AC Watts used per month	550,000	
Total AC Watts / 30.5 (days in a month) = AC Watts used per day	18,033	
AC Watts used per day / Sun Hours per day (Central Texas = 5.4)	3339	
AC Watts needed per hour per day X 1.29 (AC to DC conversion factor)	4307	
Solar array in DC Watts to reach a Zero electric bill	4307	
Solar array in kilowatts, or kW	4.3	

Step #4: Information to keep in mind when considering a solar system.

- A. Up to 30% of the total cost of installation can be taken as a federal tax credit. Previous versions of this credit had a cap of \$2,000; there is no longer a cap.
- B. The most productive system is located on a South- or West-facing roof (or area) that is shade-free from 9 am – 3 pm every day of the year.
- C. Generally speaking, you will need ~ 1 square foot of space for every 10 watts. So a 3 kW system would take ~ 300 square feet; a 4 kW system would take ~ 400 square feet.
- D. You do not need to size a system to meet all your energy needs. You will remain a customer of your electric company, so you can use more (or less) power as needed.
- E. When considering “payback” time, think about the price of electricity per kWh. Has it increased in the past? Will it increase in the future? By how much? We do not know the answer either, but the question should be factored in to your decision-making.
- F. All energy providers are obligated to allow “net-metering” which means that the electric meter must be able to run backwards (i.e. when you are generating electricity). However, they are not obligated to pay you a set \$ amount, or anything at all, if you generate more energy than you use in a month. Check with your energy provider to find out their particular “Tariff Agreement”.
- G. Be sure to check with your Homeowners’ Association before committing to a solar PV installation. For some odd reason that we simply cannot imagine, some are opposed to the “look” of solar.



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SAMPLE PROPOSAL

Date: May 1, 2009

To: CPS Energy Customer

Project: Grid tie PV System
 3500 DC Watts
 Turn-key Installation

Item No.	Description	Amount
1	3500 Watts DC Solar System	\$ 15,986.00
2	<i>Components of this turn-key system include:</i>	
3	175-Watt SolarWorld Solar Modules	
4	SMA SB4000US Inverter	
5	Array Frames	
6	DC/ AC Disconnect	
7	Two pole Breaker	
8	Combiner Box	
9	Wire, Conduit and Connectors	
10	Permits and integration with local energy provider	
11		
12		
13		
14		
15		
16		

<i>Pricing may vary due to product supply and market fluctuation.</i>		Subtotal	\$ 15,986.00
	Sales Tax	0.0825	\$ 1,318.85
	Labor		\$ 7,487.93
	Total		\$ 24,792.77
	CPS Energy Rebate at \$3.00 per watt		\$ 10,500.00
	Customer Out-of-Pocket		\$ 14,292.77
	30% Federal Tax Credit*		\$ 7,437.83
	Potential Final Total		\$ 6,854.94

Price per Watt (before incentives) \$ 7.08

*Consult with your tax accountant to determine how tax credits affect your particular situation.

If you have any questions concerning this proposal, call:
 Craig Overmiller, TXSPC Secretary/Treasurer 512-459-9494

Solar Rebates

CPS Energy has one of the better rebate programs in the country to encourage solar installations in the San Antonio area. Please take a look at their website for full information: www.cpsenergy.com. Check under "rebates." Below are highlights of the program. If you are working with Texas Solar Power Company (TXSPC), we will handle the paperwork for you.

1. CPS Energy will rebate residential customers at \$3 per AC watt up 50% of your bill or \$30,000, whichever is less.
2. The attached proposals factor in the rebate.
3. Your first step is to contact CPS Energy so they can take a look at your site to make sure it is a good location for a solar installation – if it qualifies for the rebates. They will also let you know if your electrical service is fine or is it needs to be upgraded before adding a solar installation.
4. If your site meets approval, then you will sign the 2009 Solar PV Program Rebate Application which is included in this package.
5. Contact an installer from the Approved Installer List on CPS Energy's website. TXSPC is a great choice! The installer will provide a bid*.
6. Schedule your installation. Generally speaking, it takes 1 day per 1 kilowatt for the actual installation. A 3kW system will take about 3 days to install. However, the overall approval process and scheduling can take up to 6 weeks.
7. Upon completion of the installation, CPS Energy will perform a post inspection of your system to insure it meets program guideline requirements. The homeowner needs to be at this inspection.
8. At this inspection you will be asked to assign the rebate to yourself or to your PV Installer. If you have the rebate go to yourself, there are tax implications - you may be taxed for unearned income. We suggest that you check with your tax advisor. Your out-of-pocket expense is the installation amount minus your rebate.
9. Once your PV meter is installed and your system is turned on, you will see 3 readings: Delivered Energy (DE), Received Energy (RE), and Net Energy (NE). Your PV system will have a separate meter so you can monitor system performance. There are two moving dashes on your Revenue Meter. If they are going to the right, you are buying power; if they are moving left, you are selling power. Check with CPS to verify the rate at which they purchase consumer generated power.

If you have any questions about the program please contact CPS Energy or Texas Solar Power Company (TXSPC) at the number above.

Sincerely,
Craig Overmiller
Secretary / Treasurer
Texas Solar Power Company

TEXAS SOLAR POWER COMPANY



Example of a 6kW system consisting of 30 panels at 200 Watts each.



Example of components used to tie into your standard power grid.

These will be added (l to r):

1. DC Disconnect
2. Inverter
3. PV Meter
4. AC Disconnect

These are pre-existing on your home:

1. Cable/phone box (perhaps)
2. Revenue Meter
3. Breaker Box, or Load Center



Example of battery back-up system.

*Example of solar module
TXSPC integrates into PV system
design. Specific products
dependent on market availability.*



Length 63.39 in (1610 mm)
Width 31.89 in (810 mm)
Height 1.34 in (34 mm)
Frame Aluminium
Weight 33 lbs (15 kg)

Sunmodule

SW 155/165/175 mono

The Sunmodule Plus heralds an innovative new module concept from SolarWorld AG. The fully automated production process at the SolarWorld factories creates a quality of module that is consistently high, which in turn will ensure high yields for the long term.

The module frame and the glass it surrounds are firmly attached to each other by silicone that is applied with continuous precision. This guarantees exceptional rigidity for the entire module and stops any possible loosening of the frame as a result of strong outward forces in cases such as sliding of heavy snow. Tests carried out in accordance with IEC 61215, applying loads up to 5.4 kN/m², confirm that the module can withstand heavy accumulations of snow and ice.

The patented, flat and compact junction box provides perfect protection against corrosion, as well as a capacity to rapidly rid itself of any excess heat providing high temperature handling. The junction box is reliably connected by a solid, welded bond to guarantee lasting functionality. In addition, high-quality, robust cables with factory-equipped connectors are used. The ability to recycle the modules and a 25-year performance warranty are the finishing touches to this top-quality concept.



Sunmodule

SW 155/165/175 mono

Performance under standard test conditions

		SW 155	SW 165	SW 175
Maximum power	P_{max}	155 Wp	165 Wp	175 Wp
Open circuit voltage	V_{oc}	43.6 V	44.0 V	44.4 V
Maximum power point voltage	V_{mpp}	34.8 V	35.3 V	35.8 V
Short circuit current	I_{sc}	4.90 A	5.10 A	5.30 A
Maximum power point current	I_{mpp}	4.46 A	4.68 A	4.89 A

Performance at 800 W/m², NOCT, AM 1.5

		SW 155	SW 165	SW 175
Maximum power	P_{max}	110.8 Wp	118.0 Wp	125.1 Wp
Open circuit voltage	V_{oc}	39.4 V	39.8 V	40.2 V
Maximum power point voltage	V_{mpp}	31.2 V	31.6 V	32.1 V
Short circuit current	I_{sc}	4.05 A	4.22 A	4.38 A
Maximum power point current	I_{mpp}	3.55 A	3.73 A	3.90 A

Minor reduction in efficiency under partial load conditions at 25°C: at 200 W/m², 95% (+/- 3%) of the STC efficiency (1000 W/m²) is achieved.

Component materials

Cells per module	72
Cell type	monocrystalline silicon
Cell dimensions	125 x 125 mm ²

System integration parameters

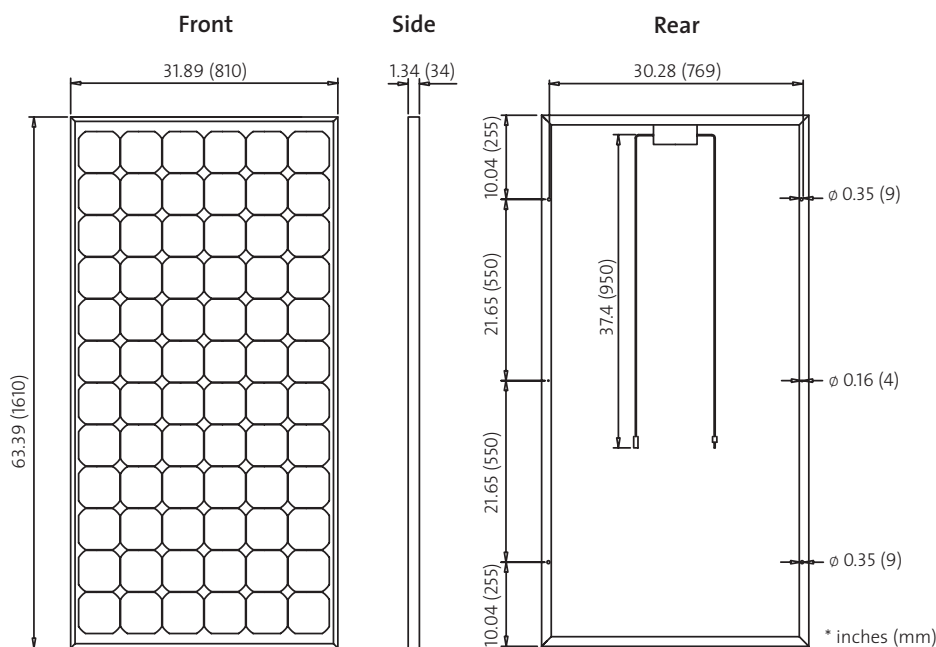
Maximum system voltage SC II	1,000 V _{DC}
Maximum system voltage USA NEC	600 V _{DC}
Maximum series fuse rating	15 A

Thermal characteristics

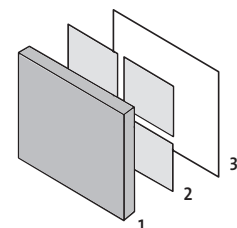
NOCT	46°C
TC I_{sc}	0.036 %/K
TC V_{oc}	-0.33 %/K

Additional data

Power tolerance	+/- 3 %
Junction box	IP 65
Connector	MC type 4



Construction



- 1] Front: tempered glass
- 2] crystalline solar cells embedded in EVA (ethylene-vinyl-acetate)
- 3] Rear: Tedlar

Modules certified in accordance with:



SolarWorld AG reserves the right to make specification changes without notice.
This data sheet complies with the requirements of EN 50380.

- > Certified to the new UL1741/IEEE 1547
- > Improved CEC efficiency
- > Integrated load-break rated DC disconnect switch
- > Integrated fused series string combiner
- > Sealed electronics enclosure & Opticool
- > Comprehensive SMA communications and data collection options
- > 5 year standard warranty with optional 10 year plan
- > Ideal for residential or light commercial applications
- > Rugged cast aluminum outdoor rated enclosure

Example of inverter TXSPC integrates into PV system design. Specific products dependent on market availability.



Sunny Boy 3000 / 4000

The best in their class

SMA is proud to introduce our new line of inverters updated with our latest technology and designed specifically to meet the new IEEE 1547 requirements. Compact design makes them ideal for residential use and the integrated DC disconnect makes installation more cost effective. They are field-configurable for positive ground systems making them more versatile than ever. Increased efficiency means better performance and shorter payback periods. With over 500,000 fielded units, Sunny Boy has become the benchmark for PV inverter performance and reliability throughout the world.

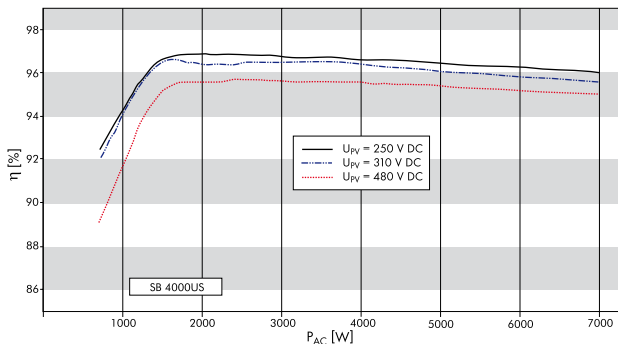


Technical Data

Sunny Boy 3000 / 4000

	SB 3000US	SB 4000US
Input Data (DC)		
Recommended Array Input Power (DC @ STC)	3600 W	4800 W
Max. DC Voltage	500 V	600 V
Peak Power Tracking Voltage	180 - 400 V @ 208 VAC 200 - 400 V @ 240 VAC	220 - 480 V @ 208 VAC 250 - 480 V @ 240 VAC
DC Max. Input Current	17 A	18 A
DC Voltage Ripple	< 5%	< 5%
Number of Fused String Inputs	4	4
PV Start Voltage (adjustable)	228 V	285 V
Output Data (AC)		
AC Nominal Power	3000 W	3500 W @ 208 V / 4000 W @ 240 V
AC Maximum Output Power	3000 W	4000 W
AC Maximum Output Current	15 A	17 A
AC Nominal Voltage / Range	183 - 229 V @ 208 VAC 211 - 264 V @ 240 VAC	183 - 229 V @ 208 VAC 211 - 264 V @ 240 VAC
AC Frequency / Range	60 Hz / 59.3 Hz - 60.5 Hz	60 Hz / 59.3 Hz - 60.5 Hz
Power Factor	1	1
Efficiency		
Peak Inverter Efficiency	96.6 %	96.8 %
CEC weighted Efficiency	95.0 % (@ 208 V) 95.5 % (@ 240 V)	95.5 % (@ 208 V) 96.0 % (@ 240 V)
Mechanical Data		
Dimensions W x H x D in inches	17.8 x 13.8 x 9.3	17.8 x 13.8 x 9.3
Weight / Shipping Weight	88 lbs / 94 lbs	88 lbs / 94 lbs
Ambient temperature range	-13 to +113 °F	-13 to +113 °F
Power Consumption: standby / nighttime	< 7 W / 0.1 W	< 7 W / 0.1 W
Topology	PWM, true sinewave, current source	PWM, true sinewave, current source
Cooling Concept	Convection, regulated fan cooling	Convection, regulated fan cooling
Mounting Location Indoor / Outdoor (NEMA 3R)	●/●	●/●
Features		
LCD Display	●	●
Lid Color: aluminium / red / blue / yellow	●/○/○/○	●/○/○/○
Communication: RS485 / Wireless	○/○	○/○
Warranty: 5-year / 10-year	●/○	●/○
Compliance: IEEE-929, IEEE-1547, UL 1741, UL 1998, FCC Part 15 A & B	●	●
Specifications for nominal conditions	● Included ○ Option – Not available	

Efficiency Curves





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Ph:(512) 459-9494 Fx:(512) 451-5934 Email:Info@txspc.com

WARRANTIES

Solar Panels
25 Year Prorated Warranty

Charge Controller
2 Year Limited Warranty

Inverter
10 Year Limited Warranty

Batteries
As per Manufacturer

Solar Thermal Collector
5 Year Limited Warranty

Installation
5 Year Unlimited Labor and Material

If, for any reason, any equipment fails during this five-year period, Texas Solar Power Company will replace or repair it at no cost to the customer. This warranty is transferable in the event of sale of home or office.

EMERGENCY PHONE NUMBERS

Office Address: 1703 West Koenig Lane
Austin, Texas 78756

Office Hours
Monday through Friday 9:00 a.m. to 6:00 p.m.

Office Phone: 512-459-9494
Fax: 512-451-5934
Toll Free: 866-459-9494

Craig Overmiller
Cell Phone: 512-632-3237
Email: craig@txspc.com

Joe Garcia
Cell Phone: 512-789-3477
Email: joe@txspc.com

References

Residential Customers:

Dale Bulla
dalebulla@earthlink.net
7202 Foxtree Cove, Austin, TX
512-345-9502
5,166-Watt PV System
(1) SMA Inverter, (1) Fronius Inverter and Kyocera Modules

Rob Warnke
warnderob@yahoo.com
1010 Tumbleweed, Killeen, Texas 76542
808-255-6198
5,040-Watt PV System
Fronius Inverter and Kyocera Modules

David Murphy
davidmurphy02@yahoo.com
9015 Spicebrush Dr., Austin, TX
512-418-1706
3,150-Watt PV System
SMA Inverter and Solar World Modules

Lewis & Dona Marquardt
lmarquardtl@austin.rr.com
7116 Foxtree Cove, Austin, TX
512- 512-795-8922
6,300-Watt PV System
SMA Inverter and Kyocera Modules

Dan Mackay
dmackay@austin.rr.com
609 Furlong Dr., Austin, TX
512-327-5632
6,300-Watt PV System
(2) SMA Inverters and Solar World Modules

Consuelo Allen
consuelo@austin.rr.com
5305 Agatha Circle, Austin, TX
512-426-8709
3,150-Watt PV System
Fronius Inverter and Kyocera Modules

David Wesley
davwes1948@aol.com
1418 Amber Road, Killeen, TX 76543-7105
254-690-0505
3,150-Watt PV System
SMA Inverter and Solar World Modules

James & Nancy Kennedy (visible from front of house)
nancy@kenndy-rs.com
4600 Colorado Crossing, Austin, TX
512-697-8741
3,150-Watt PV System
SMA Inverter and Solar World Modules

Commercial Clients:

Alori Properties

Jason Aldridge
409 West 38th Street, Austin, TX
alori@alori.net
512-452-3690
Total 215 KW Grid-tie Systems on 16 properties

Iron Knot Retreat Center

Michael Bradfute
Silver City, New Mexico
ironknot@ironknot.org
505-301-3388
21.1 KW Grid tie battery backup
4 Outback 3648 Inverters
64 Deka Solar 8A8D Batteries

Community Clinical Research

Dr. David Brown
8334 Cross Park Dr., Austin, TX
512-323-2622
20 KW Grid tie battery backup
4 Fronius 5100 IG Inverters
2 Outback 3648 Inverters
16 Trojan 8A8D Batteries

Trinity Episcopal School

Dale Blankenship
3901 Bee Caves Rd., Austin, TX
512-472-9525
23.6 KW Grid-tie System
(3) 7KW SMA Inverters

El Buen Samaritano Episcopal Mission

Sandra Freitag
7000 Woodhue Dr., Austin, TX
512-439-0747
23.6 KW Grid-tie System
(3) 7KW SMA Inverters

Office Depot

Carl Cruz
2620 Anderson Ln., Austin, TX
561-420-9723
23.6 KW Grid-tie System
(3) 7KW SMA Inverters

Sportsman's Finest

Charles Dorrance
12434 FM 2244, Bee Caves, TX
512-263-1888
14 KW Grid-tie System
(2) SMA 6000 Watt Inverters

Employee Incentive Plans

Bruce Rice
8009 Muley Dr., Austin, TX
512-258-4040
24 KW Grid-tie System
(3) 7KW SMA Inverters

Vendors

Kyocera Solar
Yessica Vargas
480-948-8003

SolarWorld
Peter Denapoli
561-477-6779

Conergy
Mark Richardson
720-305-0715

Memberships

American Institute of Architects (AIA)
Texas Solar Energy Society (TSES)
Texas Renewable Energy Industries Association (TREIA)
American Solar Energy Society (ASES)
Solar Electric Power Association (SEPA)
Solar Austin



2008 Solar PV Program Rebate Application

USE FOR SOLAR PV REBATES ONLY

A rebate is available to encourage **All CPS Energy Customers** to install Solar PV Systems. Please direct any questions to **210-353-2SAV** or visit CPS Energy website at www.cpsenergy.com for current information on funds availability.

- **All equipment (modules, inverters), as submitted on this application must be listed as under the California Energy Commission's (CEC) Emerging Renewables Program.** For a list of qualifying equipment visit: www.consumerenergycenter.org/erprebate/equipment.html
- The photovoltaic (PV) system must be installed in compliance with CPS Energy's technical requirements for distributed generation interconnection (for facilities under 25 kW). Systems between 25 kW and ≤ 100 kW will be handled on a case by case basis. Systems and connections must conform to CPS Energy connection standards.
- In addition to equipment eligibility requirements, solar contractors/installers participating in the Solar Rebate Program must be certified (within two years of CPS Energy Solar Rebate Program registration) through the North American Board of Certified Energy Practitioners (NABCEP). For details on how to become NABCEP certified, please visit their website at: www.nabcep.org.
- All Solar Initiative Rebate applications and requirements must be approved prior to system installation in addition to a Pre-Inspection of site. Any required electrical permits are mandatory for finalization of rebates.
- Program expires December 1, 2008 or when funds are depleted.
- **Once Approved by CPS Energy, Equipment must be installed within 120 days from Approval. System installations must meet all local electrical requirements and standards including receiving appropriate permits and inspections.**
- The PV System must be placed in service in the CPS Energy service area.
- The rebate recipient must be a CPS Energy customer.

***** **SEND** *****

Completed 2008 Solar PV Rebate Application. Including system layout/diagram.

Completed Net-Metering Application.

Copy of Purchase Receipt or Invoice.

Mail to:
CPS Energy Efficiency Rebate Program, Mail drop 340117
P. O. Box 1771
San Antonio, Texas 78296-1771 **(Missing documentation will delay processing)**

Customer			CPS Account Number	
Address of Installation		City	State TX	Zip Code
Mailing Address (If Different)		City	State TX	Zip Code
Day Phone Number (210) -	Work Phone Number (210) -	How did you hear about this program?		Email @

Contractor / Installer		Contact Person		
Address		City	State TX	Zip Code
Phone Number (210) -	Fax Number (210) -	Email @	Permit / Release #	

System Installation					
Residential <input type="checkbox"/>	Structure: New <input type="checkbox"/>	Contractor Price Quote \$	Est. kWh Savings/ yr.: 	Methodology Used: 	Total System Nameplate Capacity: kW
Commercial <input type="checkbox"/>	Existing <input type="checkbox"/>				
Non-Profit/Gov't <input type="checkbox"/>					
Array Type Fixed <input type="checkbox"/> 1-Axis Tracking <input type="checkbox"/> 2-Axis Tracking <input type="checkbox"/>			Fixed Tilt or 1-Axis Tracking System: Array Tilt (degrees): Array Azimuth (degrees):		
PV Module Mfg.*		Inverter Mfg.*		PLEASE LIST ADDITIONAL MODULES / INVERTERS ON NEXT PAGE	
Module Model # Qty.		Inverter Model # Qty.			
PTC Rating (watts) Array Orientation		Power Rating Efficiency %			

REBATE CALCULATION

No. Modules x PTC Rating (watts) x Inverter Efficiency x \$3.00 W/AC = Rebate Amount \$

PRE-INSPECTION

CPS Energy Inspector _____ Application Review Date ____/____/____ Annual Solar Access ____% Approved Disapproved



2008 Solar PV Program Rebate Application

ADDITIONAL EQUIPMENT REBATES

No. Modules	<input type="text"/>	x PTC Rating (watts)	<input type="text"/>	x Inverter Efficiency	<input type="text"/>	x \$3.00 W/AC = Rebate Amount \$	<input type="text"/>
No. Modules	<input type="text"/>	x PTC Rating (watts)	<input type="text"/>	x Inverter Efficiency	<input type="text"/>	x \$3.00 W/AC = Rebate Amount \$	<input type="text"/>
No. Modules	<input type="text"/>	x PTC Rating (watts)	<input type="text"/>	x Inverter Efficiency	<input type="text"/>	x \$3.00 W/AC = Rebate Amount \$	<input type="text"/>

Under penalty of perjury, I certify that the above declaration is true and correct and that it meets all of the program guidelines and requirements of the CPS Energy Solar Initiative Rebate Program. I understand that the information is subject to audit and investigation by CPS Energy and that an on site verification will be completed prior to payment of rebate. Furthermore, as a qualified CPS Energy customer and purchaser of the solar system, I understand the rebate for which I am applying will, under no circumstances, exceed the maximum allowed under current CPS Energy Solar Initiative Rebate Program guidelines. In order to receive the rebate, I understand that the solar system must be inspected and approved by CPS Energy, and I must sign this Refund Agreement that includes, at a minimum, the following conditions. A prorated portion of the rebate, calculated by reducing the rebate paid by 20% per year for each of the five years following final inspection and approval (first 20% reduction to occur on the first anniversary date of rebate payment), shall become due and payable to CPS Energy if I fail to ensure CPS Energy that the rebate equipment is properly maintained and operated at the CPS Energy address originally listed within this application. The undersigned declare under penalty of perjury that: 1) the information provided in this form is true and correct to the best of my knowledge; 2) that the above-described solar PV generating system will be solely owned by the Customer and is intended to offset part or all of the Customer's electrical needs at the site of the installation; 3) that the Customer has received a copy of this completed form; 4) that the Customer understands their electric rate may change; 5) the Customer agrees to allow CPS Energy to account for renewable energy generated by the PV system for reporting purposes; 6) the Customer has read and understands the Solar Incentive Program Guidelines; 7) the Customer agrees to comply with all the provision of Interconnection and Net Metering Guidelines; and 8) acceptance of this incentive off will not exceed CPS Energy's annual program customer limits as defined by Program Guidelines, including any previously received funds for corporate or government parents, holding companies or other business entities.

Vendor/Contractor Signature:	Date:
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FINAL INSPECTION:

I hereby acknowledge that all equipment was installed to my satisfaction and the installing contractor is responsible for all warranties. I also understand that CPS Energy is not responsible for any contractual and/or construction disputes between the installing contractor and myself.

Customer Signature:	Date:
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<small>CPS Use Only</small> CPS Energy Representative:	<small>CPS Use Only</small> Rebate awarded by:	<small>CPS Use Only</small> Rebate paid:
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Keep a copy for your records.

Please don't forget to send a copy of the **[purchase receipt or invoice](#)** after system is installed.

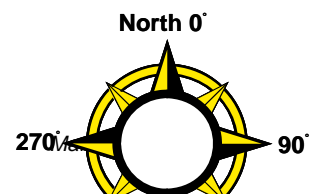
Mail to:

CPS Energy Efficiency Rebate Program, Mail drop 340117

P. O. Box 1771

San Antonio, Texas 78296-1771

(Missing documentation will delay processing)





1703 West Koenig Lane, Austin, TX 78756

Ph: 512.459.9494 Fax: 512.451.5934 Email: Info@txspc.com

Residential Solar Tax Credit – Overview*

<i>Incentive Type:</i>	Personal Tax Credit
<i>Eligible Technologies include:</i>	Solar Water Heat, Solar Photovoltaics (i.e. electricity production), Wind
<i>Applicable Sectors:</i>	Residential
<i>Amount:</i>	30%
<i>Maximum Incentive:</i>	Placed in service AFTER 1/1/09: No maximum for solar-electric systems, solar water-heating systems, or wind turbines. Placed in service BEFORE 1/1/09: Maximum for solar-electric and solar water heating, \$2,000. Maximum for wind turbines, \$4,000.
<i>Carryover Provisions:</i>	Excess credit may be carried forward to succeeding tax year.
<i>Eligible System Size:</i>	Not specified
<i>Equipment/Installation Requirements:</i>	Solar water heating property must be certified by SRCC or by comparable entity endorsed by the state in which the system is installed. At least half the energy used to heat the dwelling's water must be from solar in order for the solar water-heating property expenditures to be eligible.
<i>Authority 1:</i>	26 USC § 25D
<i>Date Enacted:</i>	8/8/2005 (subsequently amended)
<i>Effective Date:</i>	1/1/2006
<i>Expiration Date:</i>	12/31/2016
<i>Authority 2:</i>	H.R. 1424 (The Energy Improvement and Extension Act of 2008)
<i>Date Enacted:</i>	10/3/2008
<i>Effective Date:</i>	1/1/2008
<i>Expiration Date:</i>	12/31/2016
<i>Authority 3:</i>	H.R. 1: Div. B, Sec. 1122 (The American Recovery and Reinvestment Act of 2009)
<i>Date Enacted:</i>	2/17/2009
<i>Effective Date:</i>	1/1/2009
<i>Authority 4:</i>	IRS Form 5695 & Instructions: Residential Energy Credits

Summary

Established by the federal *Energy Policy Act of 2005*, the federal tax credit for residential energy property initially applied to solar-electric systems, solar water heating systems and fuel cells. *The Energy Improvement and Extension Act of 2008* (H.R. 1424) extended the tax credit to small wind-energy systems and geothermal heat pumps, effective January 1, 2008. Other key revisions included an eight-year extension of the credit to December 31, 2016, the ability to take the credit against the alternative minimum tax, and the removal of the \$2,000 credit limit for solar-electric systems beginning in 2009. The credit was further enhanced in February 2009 by *The American Recovery and Reinvestment Act of 2009*, which removed the maximum credit amount for all eligible technologies (except fuel cells) placed in service after 2008.

A taxpayer may claim a credit of 30% of qualified expenditures for a system that serves a dwelling unit located in the U.S. used as a residence by the taxpayer. Expenditures with respect to the equipment are treated as made when the installation is completed. If the installation is on a new home, the "placed in service" date is the date of occupancy by the homeowner. Expenditures include labor costs for onsite preparation, assembly, or original system installation and for piping or wiring to interconnect a system to the home. If the federal tax credit exceeds tax liability, the excess amount may be carried forward to the succeeding taxable year. The maximum allowable credit, equipment requirements, and other details vary by technology as outlined below.

Significantly, The American Recovery and Reinvestment Act of 2009 repealed a previous limitation on the use of the credit for eligible projects also supported by "subsidized energy financing." For projects placed in service after December 31, 2008, this limitation no longer applies.

Solar electric property

- **There is *no maximum credit* for systems placed in service after 2008.**
- For systems placed in service before 1/1/2009, the maximum credit is \$2,000.
- Systems must be placed in service from 1/1/2006, through 12/31/ 2016.
- The home served by the system does not have to be the taxpayer's principal residence.

Solar water heating property

- **There is *no maximum credit* for systems placed in service after 2008.**
- For systems placed in service before 1/1/2009, the maximum credit is \$2,000.
- Systems must be placed in service from 1/1/2006, through 12/21/ 2016.
- Equipment must be certified for performance by the Solar Rating Certification Corporation (SRCC) or a comparable entity endorsed by the government of the state in which the property is installed.
- At least half the energy used to heat the dwelling's water must be from solar in order for the solar water-heating property expenditures to be eligible.
- The tax credit does not apply to solar water-heating property for swimming pools or hot tubs.
- The home served by the system does not have to be the taxpayer's principal residence.

Small wind-energy property

- **There is *no maximum credit* for systems placed in service after 2008.**
- For systems placed in service in 2008, the maximum credit is \$500 per half kilowatt, not to exceed \$4,000.
- Systems must be placed in service from 1/1/2008, through 12/21/ 2016
- The home served by the system does not have to be the taxpayer's principal residence.

History

The federal [Energy Policy Act of 2005](#) established a 30% tax credit up to \$2,000 for the purchase and installation of residential solar electric and solar water heating property and a 30% tax credit up to \$500 per 0.5 kilowatt for fuel cells. Initially scheduled to expire at the end of 2007, the tax credits were extended through December 31, 2008, by the [Tax Relief and Health Care Act of 2006](#).

In October 2008, the [Energy Improvement and Extension Act of 2008](#) extended the tax credits once again (until December 31, 2016), and a new tax credit for small wind-energy systems and geothermal heat pump systems was created. In February 2009, *The American Recovery and Reinvestment Act of 2009* removed the maximum credit amount for all eligible technologies (except fuel cells) placed in service after 2008.

***This information is from the Database of State Incentives for Renewable Energy (DSIRE) website:**

http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=US37F&State=federal¤tpageid=1&ee=1&re=1 This is slightly edited (for brevity) by Texas Solar Power Company. Please refer to the link and consult with your personal tax accountant to see how these credits impact your situation. On the www.dsireusa.org version, you will find hot links to the actual bills and pertinent IRS forms.