

<mark>GO SOLAR AMERICA,</mark>-BRINGING SOLAR POWER TO THE COMMUNITY!

Go Solar America helps home and business owners get the information and education they need when researching Solar Electric Power Systems. Our goal is to save you both time and money in the process. The typical U.S. family spends almost \$1,500 a year on utility bills. About 60 percent is in the form of electricity. (Source: U.S. Department of Energy). The first step in combating global warming is improving the energy efficiency of the places we live and work. We make it simple to quickly find Solar Electric Power System Professionals and service providers in your area. Go Solar America has developed an extensive network of pre-screened Solar Electric Power System Professionals that can help you toward your energy goals. With our experience and relationships, we'll find you the perfect match, regardless of the size of your project. Our service is completely free to use and will remain that way. There's no obligation, other than a sincere commitment to lowering your electricity expenses.

KILOWATT-HOURS:

The consumption of electrical energy by homes and small businesses is usually measured in kilowatt-hours. The kilowatt-hour (symbolized kWh) is a unit of <u>energy</u> equivalent to one kilowatt (1 kW) of <u>power</u> expended for one hour (1 h) of <u>time</u>. The kilowatt-hour is not a standard unit in any formal system, but it is commonly used in electrical applications.

TIER 1-BASELINE:

As intended by state law, baseline refers to a specific amount of energy allocated to residential customers for basic services such as lighting, cooking, heating and refrigeration and that is charged at a lower price than energy used in excess of that amount. Baseline quantities are determined by the CPUC and California's regulated energy utilities are mandated to allocate a basic baseline quantity to each residential customer based upon that customer's geographic area, the season, and whether the customer has a single source of energy (i.e., if their home is "all electric"), or a combination of gas and electric ("basic" service).

California utilities use a **Tier Price Structure** that rewards you for lowering your energy usage, and helps you save money on your residential electric bill.

Here's how it works:

- The more energy you use, the more you pay.
- Each household is given a set amount of kilowatt hours (kWh) of electricity to use in each tier, each month. Similar to a full "bucket," there is a limit to the kWh you get in each tier.
- Once you use more electricity than is available in the first "bucket," you move to the next "bucket," which has a higher cost per kWh.
- Tier 1 (your **<u>baseline</u>**) provides electricity at the lowest cost per kWh.
- Higher price tiers, especially Tiers 4 and 5, are the most expensive, and every kWh you can save at this level can help you lower your bill.

Five-Tier Price Structure Sample*

Tier Tier 1 Tier 2 Tier 3 Tier 4 Tier 5



CONVENTIONAL METHOD OF ELECTRICAL ENERGY GENERATION AND USAGE IN THE UNITED STATES



NOTE: The Federal Government subsidizes all electrical energy produced in the US. Without the subsidy, we would be paying 5 to 10 times more than we currently pay!

ELECTRICITY COST WILL CONTINUE TO RISE IN THE FUTURE!

The United States and Canada are the largest consumers of fossil fuels in the world! During a House <u>floor speech</u> on May 3, 2011, Rep. Gerry Connolly, D-Va., addressed the recent jump in gasoline prices, saying that energy independence and lower gasoline prices will come from higher automobile fuel efficiency and new sources of domestic energy, including wind, **SOLAR** and biofuels. In making the argument, Connolly cited a statistic showing how out-of-proportion the United States' oil consumption is. **"America owns 3 percent of the world's oil but consumes 25 percent of its global reserves," Connolly said.**

There is a finite or limited supply of fossil fuels in the world, simply put, fossil fuels are running out. The emerging economies of China and India, nations that have populations in the "Billions" are causing supplies to be depleted at a faster rate. Short supplies coupled with high demand equals rising energy prices. Do you remember what you paid for a gallon of gasoline in 2000? Check out the graph below:



California Gasoline Prices (from February 1996 to Present)



Electricity generation is derived from fossil fuels such as crude oil, natural gas or coal. The diminishing supplies of these fuels are causing electricity prices to rise continuously. The average CA homeowner uses 7,500 kWhrs of electrical energy per year. In the year 2000, this amount of energy usage would have cost \$72.00/month; however, it will cost \$110/month today. The chart below indicates that utility prices have increased an average of 5% per year over the last 40 years.

YEAR	1970	1980	1990	2000	2010
UTILITY RATE (¢/KW-HOUR)	2.5	4.5	9.5	11.5	17.5

The following table shows how locking in a 20% reduction in monthly payments can result in thousands of dollars of savings:

BIMONTHLY PAYMENT	320.00	
ESCALATION RATE	6%	
SAVINGS RATE	20%	
CURRENT MONTHLY PAYMENT	160.00	
NEW BIMONTHLY PAYMENT	256.00	
NEW MONTHLY PAYMENT	128.00	

YEAR	MONTHLY	CUMULATIVE	
	PAYMENT	SAVINGS	
0	160.00	384.00	
5	214.12	4,176.61	
10	286.54	11,849.55	
15	383.45	24,715.25	
20	513.14	44,530.04	
25	686.70	73,644.25	
30	918.96	115,203.22	
35	1,229.77	173,416.06	

How Solar Electric Technology Works



- 1. **Solar Panels**: Solar Electric or PV modules convert sunlight to electricity. The PV modules generate DC electricity or direct current sending it to the inverter.
- 2. Inverter: Transforms the DC power into AC electricity for ordinary household needs
- 3. Breaker Box: Existing electrical panel distributes solar electricity and utility power to home.
- 4. Home Power and Appliances: Use either utility power or solar power via the breaker box.)
- 5. **Meter**: A valuable feature of photovoltaic systems is the ability to connect with the existing power grid which allows owners to sell excessive electricity back to the utility with a plan known as Net Metering.
- 6. Utility Power Grid: At times when you are not using all of the electricity produced by your system, your meter will spin backwards selling the electricity back to your Power Company at retail rate.

Net Metering: In more than 35 states, customers who own PV systems can benefit from laws and regulations that require "net" electric meter reading. The customer is billed for the net electricity purchased from the utility over the entire billing period—that is, the difference between the electricity coming from the power grid and the electricity generated by the PV system. Through net metering, the customer obtains the full retail electricity rate—rather than the much lower wholesale rate—for kilowatt-hours of PV- produced electricity sent to the utility power grid. The benefits of net metering to consumers are especially significant in areas such as Hawaii and New York, which have high retail electric rates. Utilities also benefit because the solar-generated energy often coincides with their periods of "peak" demand.

What are the benefits of YOUR Solar Electric Power System?

1. Your system can eliminate or reduce your energy bills for 25+ years.

2. Can be installed for very little upfront cost, 100% Financing available.

- 3. Increases the value of your facility or property.
- 4. Solar systems are virtually maintenance free.
- 5. Increases the value of your business: as costs to operate decrease, value of asset increases.
- 6. Electricity costs are rising dramatically thus, protecting you against future electricity price increases.
- 7. Gives you a great return on your investment through the Government's Tax Credits and Utility Cash rebates.
- 8. Solar Electric Power Systems produce domestically harvested energy, lessening our dependence on foreign energy sources.
- 9. Property Tax Exemption Benefit from the increased value solar adds to your business without paying more property taxes.
- 10. Solar electric power does not emit pollutants into our atmosphere such as CO2 and therefore reduces your carbon footprint.

Capture State Rebates Before They Are Gone:

Solar Power systems are eligible for rebate checks from the California Solar Initiative. Rebates from the CSI program cover about 15% of the cost of your system.

Increase Your Property Value

According to the Appraisal Journal, any improvement to a home that saves money on electricity expenditures increases property value by a ratio of 20:1. This means every dollar saved on electricity expenditures on an annual basis increases your property value by \$20. So, if you save \$1000 a year on electricity expenditures with your solar power system, your property value will increase by \$20,000. Sound too good to be true? Well, think of it like this: You have the option of purchasing two homes, one that has no electric bill or one that will cost thousands per year to live in. The choice is simple. Also, according to the State Law, any increase in property value due to your solar power system is exempt from property taxes. You can't lose with solar power.