# **GO SOLAR AMERICA** BRINGING SOLAR POWER TO THE COMMUNITY





# **KILOWATT-HOURS**

### **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 energy equivalent to one kilowatt (1 kW) of power expended for one hour (1 h) of time 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:

- 1. The more energy you use, the more you pay.
- 2. 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.
- 3. 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.
- 4. Tier 1 (your **baseline**) provides electricity at the lowest cost per kWh.
- 5. 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.







P.O. Box 600 Rosemead, CA 91771-0001 www.sce.com

#### Your electricity bill

/ Page 1 of 6

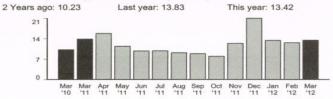
For billing and service inquiries call 1-800-684-8123, 24 hrs a day, 7 days a week	(	Customer account	2-12-893-8594
Date bill prepared: Mar 27 '12	5	Service account	3-027-8050-91 894 SAN JUAN CIR DUARTE, CA 91010
	F	Rotating outage	Group N001
Your account summary			
Amount of your last bill	\$50.23		

() Tota	al amount you owe by Apr 16 '12	\$55.82
	new charges	\$55.82
Bala	nce forward	\$0.00
SCE	's online payment we received on Mar 03 '12 - thank you	-\$50.23
1 1111		400.20

#### Compare the electricity you are using

For meter 222010-379907 from Feb 24 '12 to Mar 26 '12 Total electricity you used this month in kWh Your next meter read will be on or about Apr 24 '12. 416

#### Your daily average electricity usage (kWh)



Please return the payment stub below with your payment and make your check payable to Southern California Edison. If you want to pay in person, call 1-800-747-8908 for locations, or you can pay online at www.sce.com.



(14-574)

Customer	account 2-12-893-8594
Please write	this number on your check. Make your
check pavab	le to Southern California Edison.

Amount due by Apr 16 '12 Amount enclosed \$

Tear here

\$55.82



Tear here

P.O. BOX 600 ROSEMEAD, CA 91771-0001

12 893 8594 00000087 00000000000005582000005582





### Details of your new charges Your rate: DOMESTIC

100 A 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100

D .....

Billing period: Feb 24 '12 to Mar 26 '12 (31 days)

Delivery charges		
Basic charge	31 days x \$0.02200	
Energy-Winter		
Tier 1 (within baseline)	326 kWh x \$0.04472	
Tier 2 (up to 30%)	90 kWh x \$0.07386	
DWR bond charge	416 kWh x \$0.00513	
Generation charges		
DWR		
DWR energy credit	416 kWh x -\$0.00593	
SCE		
Energy-Winter		
Tier 1 (within baseline)	326 kWh x \$0.08205	
Tier 2 (up to 30%)	90 kWh x \$0.08205	
Subtotal of your new charges		
State tax	416 kWh x \$0.00029	
Your new charges		

#### Your Delivery charges include: \$0.68 • \$3.62 transmission charges • \$28.27 distribution charges \$14.58 \$0.04 nuclear decommissioning \$6.65 charges \$2.13 -\$17.14 conservation incentive adjustment \$6.12 public purpose programs charge -\$2.47 • \$0.91 new system generation charge Your Generation charges include: \$26.75 \$3.85 competition transition charge \$7.38 \$55.70 Your overall energy charges include: \$0.12 • \$0.50 franchise fees \$55.82

Additional information:

- Service voltage: 240 volts
- Your winter baseline allowance: 325.5 kWh

erage cost p	er kilowatt	hour		
Tier 1	Tier 2	Tier 3	Tier 4	Tier 5
\$0.13	\$0.16	\$0.24	\$0.28	\$0.31
326 kWh	90 kWh			

#### Understanding Your Bill ...

Your usage for this billing period falls in the second tier. Energy usage is based upon a tiered structure. For most customers, the price you pay per kilowatt hour increases as you use more energy. The average cost per kilowatt hour (kWh) figures in the chart to the left are based on averages. Actual prices may vary. For more information visit www.sce.com/tier.

14-154 W/65.46

Department of Water & Power

800-342-5397

Account Summary

Payment Received 10/3/11

Amount of Previous Bill dated 9/15/11

BILL DATE	DATE DUE
Nov 16, 2011	Dec 9, 2011
ACCOUNT NUMBER 1-11-97958-00440-00-0000-2-01	AMOUNT QUE \$ 100.43

ATE	124	12
AL 1	-494	<i>n</i> .
-	2	-00
1.8.2	ы.	20.

Page 1 of 5

\$ 194.91

-194.91

#### CUSTOMER ACCESS NUMBER (CAN)

1010645575

ULA SE

Los Angeles

www.ladwp.com

Use this number to access your accessrs infine. sale self-serve spritera online or by phone and when you have inquires about your account.

w

#### CUSTOMER SERVICE - 8 are to midsight

1-800-DIAL-OWP (342-5397)

#### PRPERLESS BELING

To phoose paperless billing, go to www.ladiep.com

#### ELECTRONIC PAYMENT

For electronic, automatic, or check card payment options, visit www.lactivp.com

#### **Paying Your Bill**

When paying by check, you authorize LADWP to process your check. electronically.

lew Charg	114	Tetal	Amount Oue	+ 165.43 \$ 185.43
	of New Charges		Details begin c	in next page
Los Angel	as Department of Water and Power	Charges		_
LA	Electric Charges W13/11 - 11/14/11	557 KW	n \$80.77	
Pwr	Water Charges 9/13/11-11/14/11 3	HOF	\$9.15	
		Total	LADWP Charges	\$ 89.92

LADWP provides billing services for the Bureau of Seritation. All money collected for the services listed below is passed on to the Bureau of Sambelion.

#### City of Los Angeles Bureau of Sanitation Charges

-101=	Sanitation Charges	0/13/11	11/14/11	\$75.51	
BANITATION			Total San	itation Charges	\$ 76.51
800-773-2489					





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### Los Angeles

Department of Water & Power

#### BILL DATE Nov 16, 2011 ACCOUNT NUMBER

#### Page 2 of 5

Dec 9, 2011

AMOUNT DUE

www.ladwp.com

#### LA D Department of Water & Power

#### www.ladwp.com 1-800-342-5397

Hours of operation - 6 am to midnight

#### DEFINITIONS

Electric Subsidy Adjustment – a charge, based on usage, to help cover costs of special customer subsidies including senior, disabled and low income.

Energy Cost Adjustment — an adjustment that reflects the variations in what LADWP pays for the energy they deliver to customers.

kWh - (kilowatt-hours) the units in which electric meters measure usage 1 kWh equals 1000 watts of electricity supplied for one hour.

Minimum Charge – an amount charged for service if your usage fails below a certain minimum level.

Rate Schedule – rates, based on type of use, fixed by the Board of Water and Power Commissioners and approved by the City Council. For a list, visit www.ladep.com

Service Charge – a charge for non-measured services provided (meter reading, billing, postage, etc.)

Tier -- one of three usage ranges, based on zone, in a pricing method that provides an incentive to conserve electricity. You pay the lowest rate for usage in Tier 1, a higher rate in Tier 2, and the highest rate in Tier 3. Tiered billing is in effect Jun 1 - Sep 30. During Dot 1 - May 31, the rates for the three tiers are the same. For more information, visit www.ladwp.com

Zone – one of two areas (Zones 1 and 2), based on generally common average temperatures, used to determine a customer's electricity allotment for each pricing tier.



BILLING PERIOD DAYS ZONE 9/13/11 - 11/14/11 62 2

RATE SCHEDULE R1-A Residential Electric

#### NEXT SCHEDULED READ DATE

1/17/12

Questions about these charges? 1-800-342-5397

#### USAGE HISTORY (Total kWh)

DATE DUE



METER NUMBER CURRENT READ		- PREVIOUS READ	= TOTAL USED
830485 81188 90631 ESTIMATED		the second se	557 KWH
Tier 1 Energy		557 kWh x \$0.07020	39,10
Energy Cost Adjustme	nt	557 KWh x \$0.05690	31.69
Electric Subsidy Adjus	tment	557 kWh x \$0.00447	2.49
Subtotal of Electric C	Charges		\$73.28
City of Los Angeles Uti	lity Tax	\$73.28 x 10.0%	7.33
State of California Ener	rgy Surcharge	557 kWh x \$0.00029	0.16
		Total Electric Char	0 00 77

1+11-97868-00440-00-0000-2-01 \$165.43

Total Electric Charges \$80.77

#### Your Electric Usage by Tier

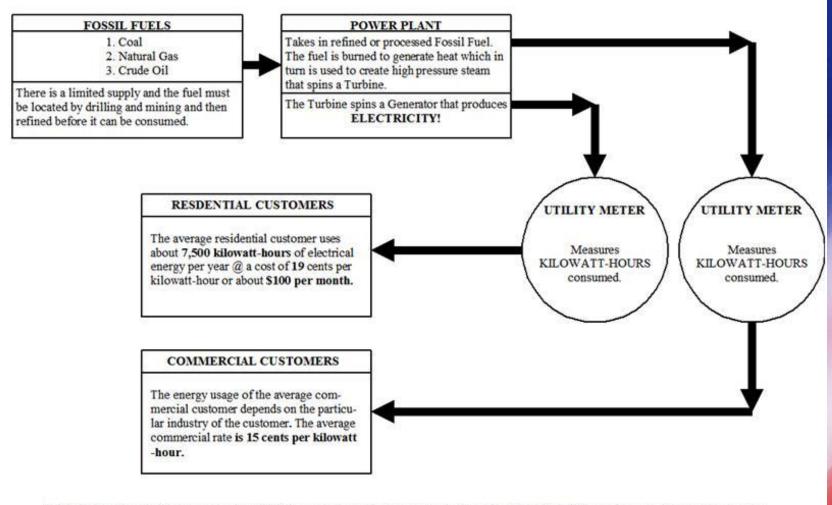
Tier 1 \$0.0702/kWh	Tier 2	Tier 3
Fint 1,000 wh		

Usage is billed at 3 different rates, depending on how much you use. This graph shows how your energy usage relates to these tiers, and the rate you paid in each tier. For more, visit www.ladwp.com

Green Power for a Green LA-LADWP's Green Power program replaces electricity from polluting power plants with energy generated from renewable resources. To learn more and sign up, visit www.GreenLA.com

Mail payments to LADWP, PO Box 30808, Los Angeles CA 90030-0808

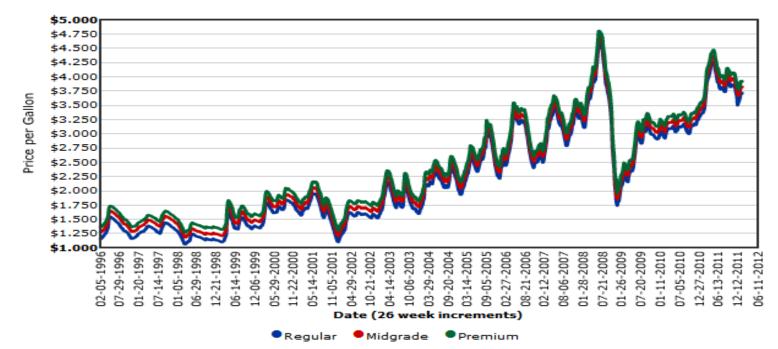
#### CONVENTIONAL METHOD OF ELECTRICAL ENERGY GENERATION AND USAGE IN THE UNITED STATES



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!



The United States is the largest consumer of fossil fuels in the world! During a House floor speech 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-ofproportion 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)



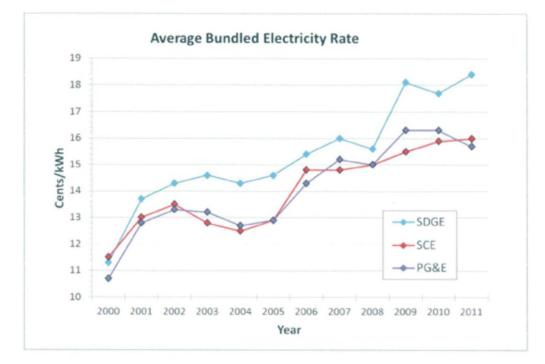
### **ELECTRICITY COST WILL CONTINUE TO RISE IN THE FUTURE!**

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.

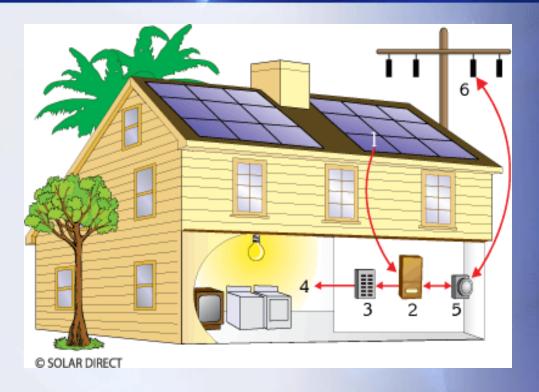
YEAR	1970	1980	1990	2000	2010
UTILITY RATE (¢/KW-HOUR)	2.5	4.5	9.5	11.5	17.5



### **Southern California Electricity Rates**







- 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.)
- 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 PVproduced 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 a 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.

#### **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. Sounds 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.

#### 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.



### **BEFORE SOLAR**

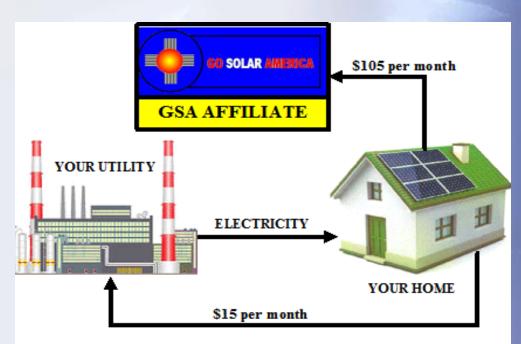


Energy cost are rising an average of 6% per year. Therefore, your monthly payments will continue to rise as follows:

Today-2012 YOU pay:	\$150.00 per month
By 2017 YOU pay:	\$201.00 per month
By 2022 YOU pay:	\$269.00 per month
By 2027 YOU pay:	\$359.00 per month
By 2032 YOU pay:	\$481.00 per month



### **AFTER SOLAR**



When you partner with a GSA Affiliate, you are protected from rising energy cost! When your neighbor's cost are rising dramatically, your cost are essentially fixed.

Today-2012 YOU pay:	\$120.00 per month
By 2017 YOU pay:	\$125.00 per month
By 2022 YOU pay:	\$132.00 per month
By 2027 YOU pay:	\$141.00 per month
By 2032 YOU pay:	\$153.00 per month

A Solar Power Electric System is a **"HOME IMPROVEMENT** ASSET", therefore it will immediately add **\$32,400** of value to the property in this example.



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

CURRENT MONTHLY PAYMENT		150.00			
MONTHLY SAVINGS RATE		20%			
NEW MONTHLY PAYMENT AFTER SOLAR		120.00			
	AVERAGE ANNUAL RATE HIKE			6%	
YEAR	BEFORE SOLAR	AFTER SOLA	AR	CUMULATIVE	
	MONTHLY PAYMENT	MONTHLY PAY	MENT	SAVINGS	
TODAY	150.00	120.00	-	360	
5	200.73	125.07	1	3,720.00	
10	268.63	131.86		10,329.60	
15	359.48	140.95		21,306.59	
20	481.07	153.11		38,126.39	
25	643.78	169.38		62,766.22	
INCREA	SE IN PROPERTY VALUE	UE \$32,400.00			



# **HOW MUCH CAN**

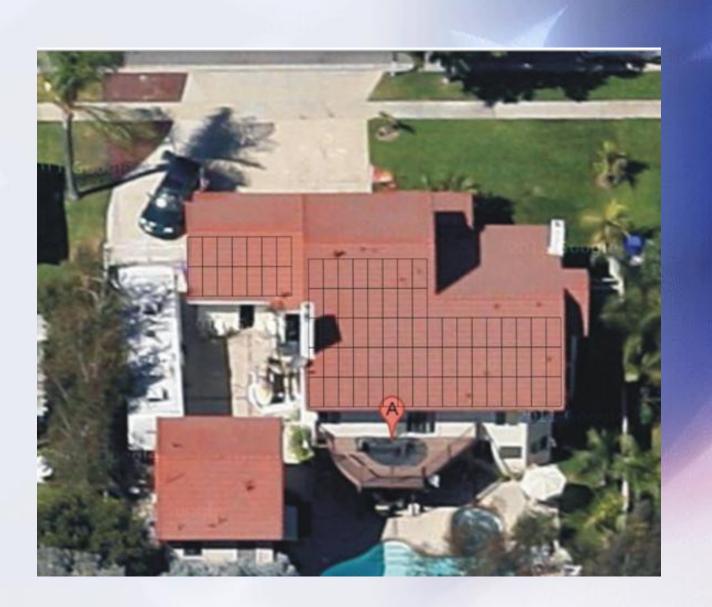


# SAVE ?











### **CUSTOMER SOLAR PV SYSTEM SPECFICATION ANALYSIS**

	FIXED LEASE	2.75% ESCALATING LEASE	4.75% ESCALATING LEASE
SYSTEM ORIENTATION	180 DEGREES	180 DEGREES	180 DEGREES
ROOF PITCH	12:5	12:5	12:5
MAXIMUM NUMBER OF PANELS	45	45	45
MAXIMUM SYSTEM SIZE	11.025 KW-DC	11.025 KW-DC	11.025 KW-DC
MAX SYSTEM PRODUCTION	18,037 KW-HOURS/YR	18,037 KW-HOURS/YR	18,037 KW-HOURS/YR
EXISTING KW-HOURS USAGE	9,775 KW-HOURS	9,775 KW-HOURS	9,775 KW-HOURS
BEFORE SOLAR COST	\$150.00/MONTH	\$150.00/MONTH	\$150.00/MONTH
TOTAL COST OVER 20 YEARS	\$66,240.00	\$66,240.00	\$66,240.00
ESTIMATED SYSTEM REQUIRED	5.64 KW-DC/23 PANELS	5.64 KW-DC/23 PANELS	5.64 KW-DC/23 PANELS
ESTIMATED SYSTEM PRODUCTION	9,214 KW-HOURS- 94%	9,214 KW-HOURS- 94%	9,214 KW-HOURS- 94%
AFTER SOLAR COST	\$166.00/MONTH	\$139.00/MONTH	\$123.00/MONTH
PROPERTY VALUE INCREASE	\$35,600.00	\$35,600.00	\$35,600.00
BEFORE SOLAR -10 YRS	\$254.00/\$0.00	\$254.00/\$0.00	\$254.00/\$0.00
AFTER SOLAR- 10 YRS	\$178.00/\$3,159.00	\$189.00/\$4,251.00	\$194/\$5,028.00
BEFORE SOLAR-20 YRS	\$454.00/\$0.00	\$454.00/\$0.00	\$454.00/\$0.00
AFTER SOLAR-20 YRS	\$211.00/\$22,407.00	\$275.00/18,786.00	\$325.00/16,276.00
NET SAVINGS IN 20 YEARS	\$22,407.00	\$18,786.00	\$16,276.00
ENVIROMENTAL IMPACT	255,045 LBS CO2	255,045 LBS CO2	255,045 LBS CO2



### HOW DO YOU GET STARTED?

- 1. You must set and "keep" a 20-30 minute APPOINTMENT with one of our Green Energy Consultants.
- 2. Your ROOF must be a good candidate for SOLAR.
- 3. Your ELECTRIC UTILITY BILL must be at least \$150 per month.
- 4. You must have GOOD CREDIT.

### YOU WILL NOT HAVE TO SPEND ANY ADDITIONAL MONEY!

After you "GO-SOLAR", 80 to 100% of your electricity will be generated by the GSA Affiliate's Solar Electric Power System on your roof. You will make one fixed monthly payment to the GSA Affiliate and one very small monthly payment to your utility. Your total monthly cost will be immediately lower! It's that simple!



### Perfect alignment every time with Green Energy's Pro-Solar mounting system.







# Solar~Elegant and functional.







## Roof-integrated Solar Array.







# Another satisfied customer.







# We take pride in our work and it shows.





