



Your Logo Here

OnGrid Solar is privileged to present

**A personalized solar electric analysis for:**

**Mr. Sunny Customer and Ms. Happy Buyer**

Solar User Inc.

(408) 111 1111H, (408) 222 2222C, (408) 333 3333x333W  
cust@buyer.com

Site Address:

117 So Mary Ave, #30  
Sunnyvale, CA 94087

of a

**9.5 kW Residential PV System**

prepared by:

**Andy Black**  
**OnGrid Solar**  
Voice (408) 428-0808  
Fax (408) 521-0885  
andy@ongrid.net  
www.ongrid.net

July 18, 2006

OnGrid Solar Sales Tool v2.09  
SFA-B4E1ZMZL3SM8HVAIOM4



Your Logo

Dear Mr. Sunny Customer and Ms. Happy Buyer,

Thank you for the opportunity to present you with a proposal for a solar electric system. OnGrid Solar is delighted to be working with you.

This proposal covers the following areas:

- Your current usage profile and economic assumptions included in your customized analysis
- A summary of your site conditions
- Opportunities to save energy
- How solar electric systems work
- Our recommendation of a solar system to fit your needs
- A cost analysis, including incentive programs, tax credits and other critical information leading to the economic bottom line.
- A financial analysis of what the solar system will do for you economically, including:
  - > How much the solar system will save on your electric bill
  - > How much the system will increase your property's value
  - > If you finance the system, how much it will cost or save you on a monthly basis, both initially, and over time.
  - > As an investment, what its long-term Compound Annual Rate of Return will be (comparable to stocks, bonds, savings, etc).
  - > An environmental analysis, showing how much benefit you'll be creating on top of the savings you'll enjoy.

Please contact me at:

Andy Black  
OnGrid Solar  
Voice (408) 428-0808  
Fax (408) 521-0885  
andy@ongrid.net  
www.ongrid.net

I would be pleased to answer any questions. I will also follow up with you shortly.

Sincerely,

Andy Black

## Notice

This information is provided as an illustration of potential financial benefits stemming from ownership of a renewable energy power system. This is not a production guarantee. A professional accountant or tax advisor should confirm these estimates. Neither OnGrid Solar nor any authorized user of the tool used to produce these results warrants the applicability of these estimates for particular business cases, and both disclaim all liability.

The estimates of production and other results can be independently validated at the following websites:

PV Watts Solar Performance Estimator: [http://tredc.nrel.gov/solar/codes\\_algs/PVWATTS/](http://tredc.nrel.gov/solar/codes_algs/PVWATTS/)  
FindSolar.com: <http://www.findsolar.com> funded by the Department of Energy  
California Energy Commission: <http://www.consumerenergycenter.org/renewable/estimator>  
New Jersey Clean Energy Program: <http://www.njcep.com/html/estimator.html>  
The DSIRE Database of Incentives: <http://www.dsireusa.org>

## Energy Usage Profile

This describes the historical usage of energy, a major factor in sizing a solar system

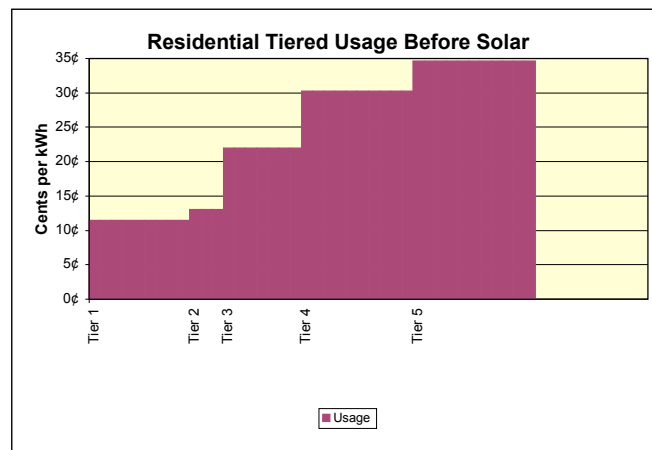
### Your property has used, on average:

- 1,500 kWh in the winter 6 months (November thru May) and
- 1,500 kWh in the summer 6 months (June thru October)
- The total annual usage has been: 18,000 kWh
- This equates to an average electric bill of \$359.73 per month.

We are not anticipating any changes in usage due to any lifestyle changes or number of occupants.

We are not anticipating that you will improve your home's efficiency. However, Energy Efficiency is a cost effective way to improve the return on your solar investment, and do the right thing environmentally. There are federal tax credits that can make energy efficiency even more attractive. More on this later.

This home is above average usage, with top usage in Tier 5. The top rate you pay for electricity is 34.6¢ per kWh. The average rate was 24.0¢ per kWh. Solar will save electricity in the top tiers first.

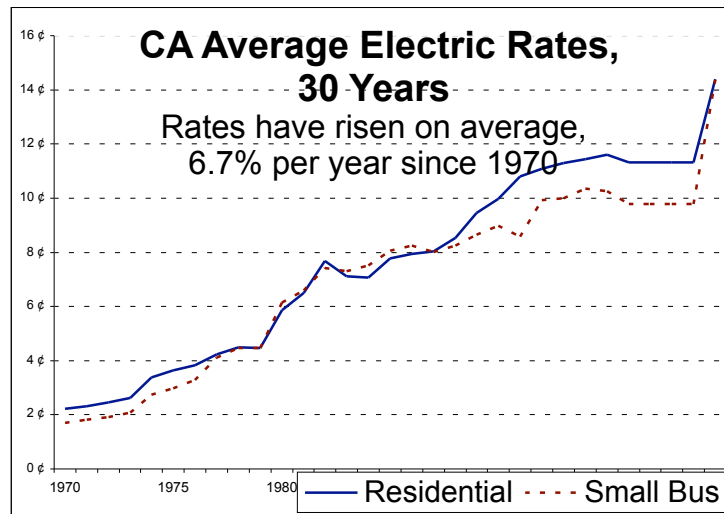


The Tier pricing system is a progressive pricing system whereby the more you consume, the higher the rate becomes. The top of Tier 2 represents the 'average' user in your geography who uses 130% of 'baseline'. Baseline for your geography is 11.9 kWh per day in the summer, and 12.6 kWh per day in the winter. In a 30-day month, this translates to 357 kWh per month in the summer, and 378 kWh per month in the winter.

Your current electric rate is PG&E E1-X B , which is a Residential Regular Rate, Tiered, Non-TOU rate. TOU stands for Time-of-Use, which many times, is a beneficial rate for solar. TOU rates value electricity differently depending on time of day. Solar can sell back best during the day, which usually corresponds with the highest TOU rates. We suggest you switch to PG&E E6-X B , which is a Residential, Tiered, TOU rate.

### Inflation Factors

Inflation plays a big factor in future energy costs, and magnifies the amount a solar system will save you. Historically, inflation has been around 6.7% on average over the last 30 years, much higher than the CPI. In this analysis, electric rate inflation of 5.0% has been factored in over the long term. The CPI (Consumer Price Index) has increased about 3.5% annually since 1981. In this analysis, general inflation on maintenance, etc. is assumed to be 3.5%.



### Tax Assumptions:

We've assumed the following tax brackets for factoring in certain tax implications:

- 28.0% Federal Income Tax Rate
- 9.3% State Income Tax Rate
- 37.3% Combined Fed & State Income Tax Rate

### Site Conditions & System Efficiency Factors

The anticipated orientation of your PV Array is 22° up from horizontal, and facing S.

Your site location in Sunnyvale, CA receives about 5.3 hours of equivalent full noontime sun. This is based on 30-year annual average data for nearby San Francisco, CA (SFO Airport) found in the NREL Redbook (<http://redc.nrel.gov/solar/pubs/redbook>). This level of sunshine can vary +/- 9% year to year due to weather.

Accounting for shading & orientation factors, we anticipate your system will have 5.3 hours of effective full noontime sun.

### System Efficiency Estimations

In addition to shading & orientation, there are numerous system efficiency factors that must be included to make a reasonable, conservative estimation of production. These include inverter efficiency, module heating, wire losses, dust & dirt, and module mismatch factors. We expect that these will account for a total system efficiency factor of 69.9%. Normal loss factors for most systems are estimated to be 69%-73% (from the CEC guidebook, see [http://www.energy.ca.gov/reports/2001-09-04\\_500-01-020.PDF](http://www.energy.ca.gov/reports/2001-09-04_500-01-020.PDF)).

## Opportunities For Saving Energy

Conservation - simply using or doing with less. This is always the most cost effective, but not always doable. Can you turn off or unplug an extra refrigerator in the garage, and only use it when it's really needed? Are there other things that are rarely used that can be shut off?

### **Energy Efficiency:**

Getting the same benefits and enjoyment, but in ways that require less input energy. These are often very cost effective, but less in vogue than solar electricity. They include lighting upgrades and replacing refrigerator and other equipment or appliances with more modern and efficient products.

The American Council for an Energy Efficient Economy produces excellent guides for home and building energy efficiency and savings. More information is available at: <http://www.aceee.org/consumer/consumer.htm>

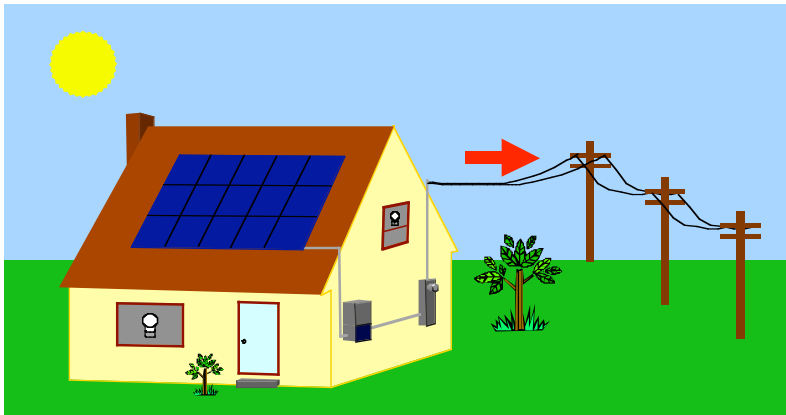
An energy efficiency audit can identify other ways to use less, and sometimes be even more comfortable.

### **Solar Electric System:**

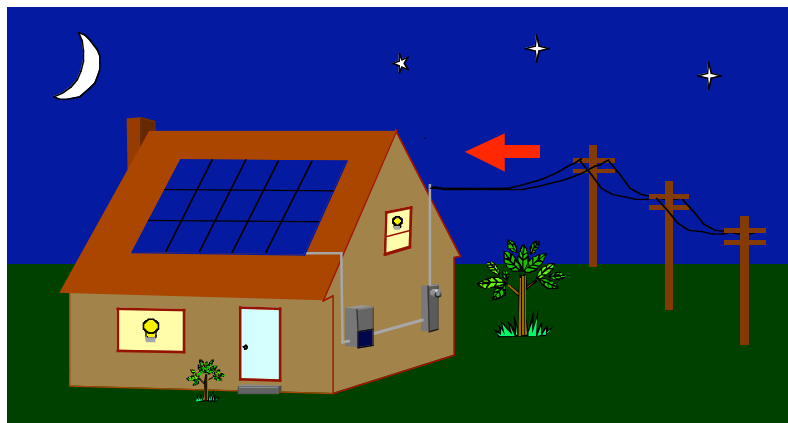
Solar Electricity, or 'PV', is the most interesting, hot new technology. Strongly supported by the state & federal governments. Solar Electricity is one of the fastest growing energy technologies worldwide, over 35% per year for the last 5 years. Not actually a 'new' technology, the first solar panel was put into use in 1954. Most of the bigger solar companies have over 20 years experience in producing and refining their products. Some have over 40 years experience.

## How Solar Electric Systems work

Solar Electric systems generate electricity silently and without any moving parts. Sunlight falls on the solar array (blue, on the roof), generating DC electricity. That DC electricity is converted into household 120V AC electricity by the inverter (blue & grey, on the wall). The AC electricity is fed into your electric meter and circuit breaker panel (grey, on the wall). The electricity either goes to your appliances and lights, or to the grid, or some to each. This all happens silently and automatically every day.



At night and during cloudy weather, the solar system's output is reduced or stopped; however, your home then gets electricity directly from the utility grid. You're always connected to the grid, so you can have as much power as you need, any time you need it, regardless of whether the solar system is able to put out any power.



When the solar system can put out power, it goes to reducing your usage at the time, or, if there is excess, to spinning the meter backwards, counting down your electric use and bill. Special metering, such as Time-of-Use metering and billing arrangements can help you take advantage of higher daytime rates, allowing you to sell power at a high rate, and buy it back at night at a lower rate. This helps reduce the necessary size of your solar system, while still cutting your bill by the same amount.

## Recommended Solar Electric System

Based on the above usage, site conditions and system factors, we recommend a 9.527 kW (CEC AC rating) system comprising 55 Sharp Corporation ND-208U1 modules and 3 SMA America SB3800U (240V) inverters.

Note: There are several ways of rating solar systems. One way is using the CEC AC rating system. The CEC AC rating system takes account of system performance reductions due to inverter efficiency and module heating effects. Using this rating system, the primary modules have a rating of 183.3 watts, and the inverters have an efficiency rating of 94.5%. The total system has a rating of: 9.527 kW (CEC AC).

Another method is using the nameplate rating system, also known as STC (Standard Test Conditions) or DC rating of the system. This rating system assumes standard, ideal factory conditions. Using this rating system, the modules have a rating of 208 watts. The nameplate rating (STC) of this system is: 11.440 kW DC. These ratings are useful in comparing systems side-by-side.

This system will require approximately 1,005 square feet of mounting area. The module dimensions are 64.6" by 39.1" plus typically 1-inch gaps between rows and columns of modules.

This system, in this configuration (with the shading, orientation, tilt and other factors assumed) is estimated to produce 15,521 kWh per year of usable electricity to offset your electric bill.

That is about 1,629 kWh per year per kW CEC AC capacity rating, or 1,357 kWh per year per kW STC nameplate rating. This might be useful to you for comparison, on a per kW basis, to estimations you might see in other tools or estimators, or in print from government energy agencies. It's a way of checking the validity of the estimations and proposal being presented to you.

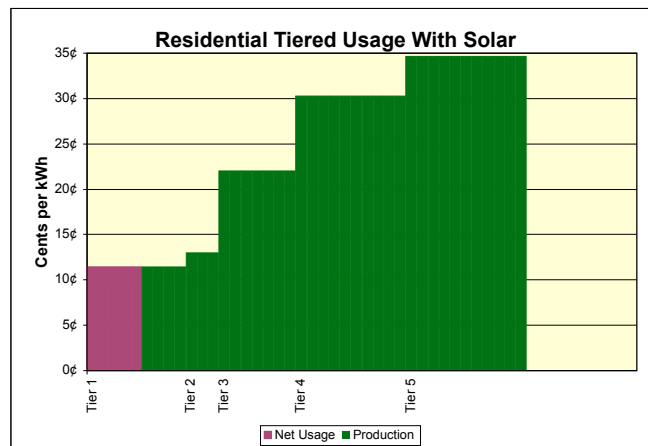
Over time, solar systems lose a little bit of performance due to ageing of the solar modules. The annual module degradation rate in your system is estimated to be 0.5% per year (normal ranges from 0% to 1%).

### Electric Usage with Solar:

Your new average electric bill will be approximately \$11 per month when averaged over a typical year. This is an estimate, and will be affected by many factors including any unanticipated changes in your usage, variations in the weather in a particular year, and excessive dirt build-up on the array.

**This translates to a savings of approximately \$349 per month when compared to what we expected your usage to adjust to with anticipated lifestyle changes. Over a year, we expect you will save about \$4,184. The Pre-Tax value of the first year annual savings due to solar is \$6,674. This is important for valuing the solar savings compared to other investments, which are often taxable.**

Your net energy use will be substantially lower because of the production from the solar system. The total area in the chart below shows your total usage, and matches the usage in the previous chart above. However, the area in green is the fraction that will now come from solar.



Your new tier is now Tier 1. Your new marginal cost of electricity is 11.4¢ per kWh (that is, the new cost to switch on the lights. Your old cost to do so was 34.6¢ per kWh). Note: it is not necessary to produce all the electricity you use, because you are taking advantage of selling at higher rates, and buying at lower rates.



## Solar System Capital Cost and Incentive Summary

Your solar system is eligible for incentives to help make it more affordable and attractive. The breakdown for the cost of your system, from the top line, to the net cost, after all incentives is:

\$	82,229	Total System Cost (includes full service, parts, delivery, installation, warranty, sales tax)
\$	-	
\$	-	
\$	-	
\$	-	
<hr/>		
\$	82,229	Gross Top Line Cost (\$8.63 per CEC AC Watt)
\$	(24,770)	Rebate Incentive at \$2.60 per Watt
\$	<b>57,459</b>	<b>System Price after Rebate (typically, the net contract amount)</b>
\$	500	Estimated Permit Fees NOT included in system contract price
\$	-	
\$	-	
<hr/>		
\$	57,959	Cost After Rebate & Fees (may be the Tax Creditable Amount, see Tax Advisor)
\$	-	
\$	-	
\$	-	
\$	(2,000)	Federal Tax Credit
\$	-	
\$	<b>55,959</b>	<b>Net System Cost with Tax Benefits</b>
\$	-	
\$	-	
<hr/>		
\$	<b>55,959</b>	<b>TOTAL NET AFTER-TAXES COST OF SYSTEM</b>

Incentives are reducing your cost of the system by approximately 32%, or about \$26,270

## Financial Analysis & Payback

Your solar system will generate substantial savings on your electric bill. These savings can provide a variety of direct and future economic benefits. Some of the ways these economic benefits are measured include:

**Direct, immediate & future savings on your electric bill creating improved cash flow**

**Total Lifecycle Payback**

**Home resale/appraisal value increase**

**Current and future cash flow if financed**

**Compound Annual Rate of Return (comparable to stocks, bonds, savings, etc)**

### Direct, Immediate & Future Savings

These immediate and future savings will immediately reduce the operating expenses of your home and improve your cash flow:

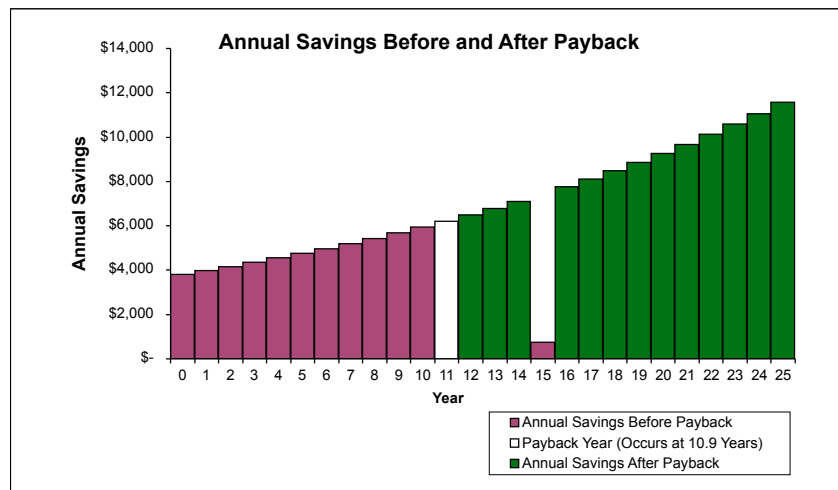
<b>New average monthly electric bill:</b>	<b>\$</b>	<b>11</b>
<b>Monthly savings:</b>	<b>\$</b>	<b>349</b>
<b>Annual savings:</b>	<b>\$</b>	<b>4,184</b>

The savings will increase over time due to inflation, which we've agreed to anticipate being 5.0% for electricity over the long term. Historically, electric inflation has been 6.7% in California over 30 years, even though the CPI has only been 3.5%.

### Total Lifecycle Payback

Payback is often looked at as a measure of financial soundness of an investment. However, for long-term investments such as stocks, bonds, homes, and solar systems, payback isn't easily found or comparable to other investments to determine which investments form the best options for a diversified portfolio. 'Payback' has several other drawbacks as well, including the difficulty in accounting for inflation, time-value-of-money, one-time expenses such as inverter replacement cost, or the savings available after 'payback' has been achieved.

Other ways of looking at Payback include analysis of the Total Lifecycle Payback over the 25-year warranted life of the solar modules. In the graphic below, the steadily increasing steps reflect each year's savings from the solar system affected by 5.0% inflation. The red area in the graphic below shows the needed accumulation of savings before payback. The green area shows additional savings received after payback. As you can see, savings after payback are substantial.



SFA-B4EHZMZL3SM9HVAIOM4

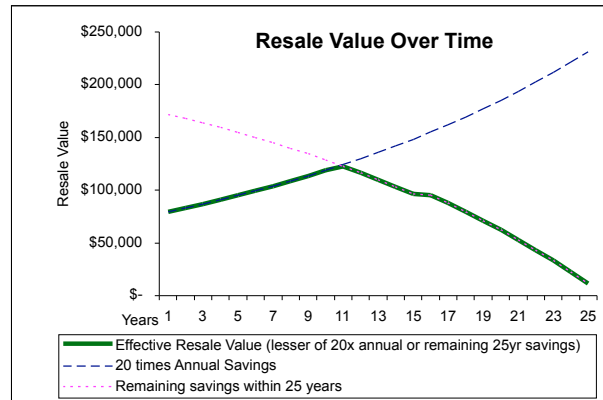
### Home Resale/Appraisal Value Increase

Solar systems increase home values by reducing operating costs. The Appraisal Institute published a study in the Appraisal Journal in 1998 & again in 1999, that stated that if a home's operating costs can be reduced through an energy efficiency measure that reduces its operating costs, those savings have a tangible connection to increasing the home's value. The rationale is, that instead of paying the utility, a future buyer could take a larger mortgage, and instead pay the bank and their operating costs would remain unchanged.

The article established that a homes resale value increases \$20 for every \$1 saved in operating costs. This is based on a 5% after-tax long-term average for mortgage costs. For more information see [www.ongrid.net/AppraisalJournalPVValue10.98.pdf](http://www.ongrid.net/AppraisalJournalPVValue10.98.pdf) which is from The Appraisal Journal, Oct '98.

**This home's annual savings of \$4,184 translate to an immediate increased resale value of \$79,576. This translates to 142% of the system's net cost.**

Because savings increase over time due to electric rate inflation, the increase in resale value will increase as well. However, the limit to this increase will be the anticipated remaining savings left in the system before it's "end of life", which has been conservatively estimated at 25 years (the module warranty life). The actually design life is much longer, but to be conservative, we'll use this shorter time horizon.



The maximum resale value of \$122,795 based on estimated remaining savings to 25 years occurs at year 11.

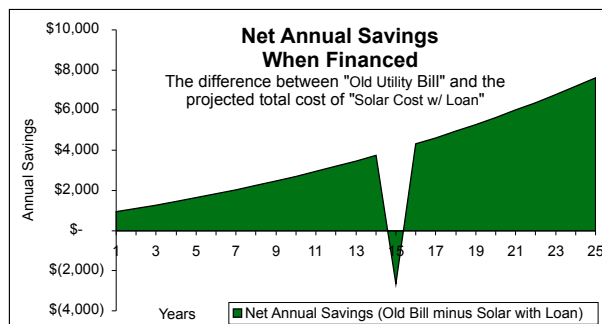
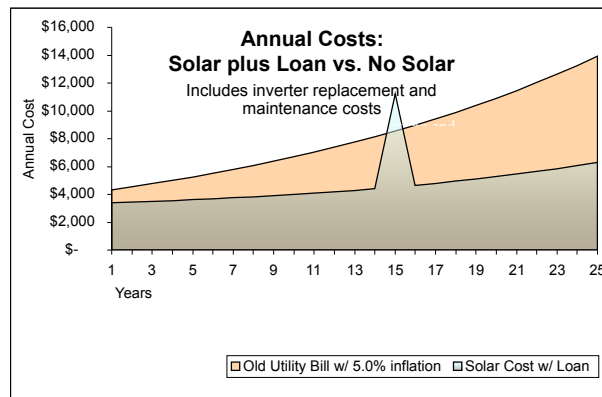
**Current and Future Cash Flow if Financed**

If the system is financed, the cash flow analysis compares the cost of the loan (principal, interest and tax effects) to the savings on the electric bill (minus maintenance and other costs). For this analysis, we've assumed a loan rate of 7%, and a loan term of 30 years.

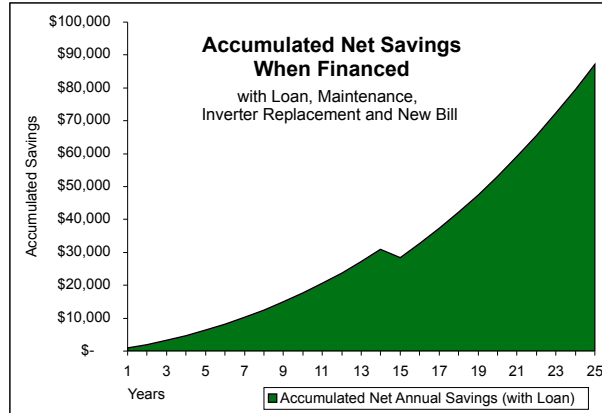
<b>Electric Bill Savings in 1st Month (before electric rate inflation) \$</b>	<b>332</b>
<b>1st Month Net Cost of a 7%, 30 year loan \$</b>	<b>(254)</b>
<b>NET SAVINGS / CASH FLOW IN FIRST MONTH \$</b>	<b>78</b>

Note, this 1st month savings includes a small factor for long term maintenance cost, which wasn't reflected in the 'Direct, Immediate Cash Flow' calculation above.

As in the Appraisal/Resale calculation above, electric inflation will increase the electric bill savings over time. However, the loan cost is unaffected by the compounding effects of inflation. It may be adjusted by changes in the interest rate if it is a variable rate loan, but it does not compound - a great benefit. For the purposes of this analysis, we will assume the loan is a fixed-rate home equity based loan. The only part of the loan cost that changes over time, is the loss of deduction of the interest as the loan is paid off.



SFA-B4E1ZMZL3SM9HVA10M4



The last graphic shows the accumulated savings. Note that this is pure savings, with no out-of-pocket costs. All system costs came from financed sources. This is the accumulation of excess savings above what was needed to pay off the principal and interest for the loan.

### Compound Annual Rate of Return

The Compound Annual Rate of Return (CARR) is an analysis method that makes the solar investment comparable to other interest-rate-based investments, such as stocks, bonds, CDs, money markets, savings, etc. The goal is to include all the cost and benefit components in a multi-year timeline and look for the effective annual rate of return using Internal Rate of Return analysis (the IRR tool in most spreadsheets).

In residential solar analysis, it's important to treat and view the system properly with respect to taxes. A solar system saves the homeowner after-tax expense. However, most of the other investment opportunities provide pre-tax returns, and are usually thought of in a pre-tax context. Therefore, in order to make a good side-by-side comparison of the two, it is then appropriate to translate one to the other's realm.

Because most people think of their investments in pre-tax terms, the attached analysis translates the solar Compound Annual Rate of Return analysis to its pre-tax equivalent (note, all other analyses in this pro forma are unaffected by this translation). This requires that most amounts be converted based on the purchaser's tax bracket. The amounts that do not get converted are the system's net capital costs (top line, rebate values, etc) and any state tax credit amount.

All relevant cost components must be included to ensure completeness of the analysis. These include; system capital cost, rebate, tax credits, performance based incentives, REC sales, maintenance costs, tax consequences of any incentives and state credits, depreciation and the tax consequences of depreciation, electric bill savings, tax consequences for the loss of deductibility of such savings (commercial analyses only), and inverter replacement cost at an appropriate year in the future.

<b>Annual savings:</b>	<b>\$</b>	<b>4,184</b>
<b>Pre-Tax value of the annual savings:</b>	<b>\$</b>	<b>6,674</b>

Loan costs do not get included in this analysis as that muddies the waters and can create excessively optimistic looking results. The CARR analysis should be done in pure form as if the choice were between investing in this opportunity vs. another. It is irrelevant in comparing the two choices what the source of funds might be, and only creates confusion.

Looked at another way, if the system were substantially financed, such that there was no initial outlay, and only a cash positive result, what is the rate of return on that - infinite. While it may be true in this specially created case, it does not produce a useful result for purposes of comparison. Hence, this analysis assumes an all cash transaction.

When comparing analyses, it is also important to look at the COMPOUND ANNUAL rate of return, rather than an annual average, which can also appear misleadingly high. More information on financial analyses for solar systems is available at: <http://www.ongrid.net/papers/PaybackOnSolarSERG.pdf>

<b>Compound Annual Rate of Return:</b>	<b>14.9%</b>
--	--------------

Please see the attached 25-year financial timeline analysis for details of the amounts and timing of items included in the CARR analysis.

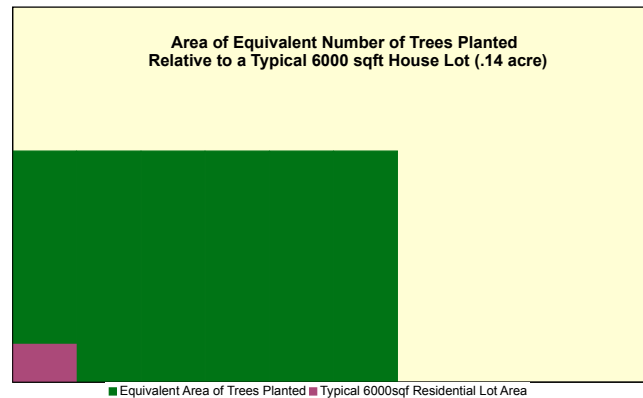
## Environmental Analysis

Your solar system will generate substantial environmental benefits in the form of avoided emissions from power plants. Over 25 years, this solar system is estimated to offset:

**608,698 lbs of CO<sub>2</sub>, the leading greenhouse gas**  
**1,953 lbs of NO<sub>x</sub>, which creates smog**  
**1,768 lbs of SO<sub>2</sub>, which causes acid rain**  
**120 lbs of particulates that cause asthma**  
**990,412 miles driven in an average car, or 39,616 miles a year**

These can also be thought of in other forms of avoided environmental impact:

**It's like taking 3.2 cars off the road for 25 years.**  
**Or planting 5.2 acres of trees.**



## Conclusion

Thank you again for the opportunity to present you with a proposal for a solar electric system. OnGrid Solar is delighted to be working with you. Please let us know what we can do to win your business.

**Mr. Sunny Customer and Ms. Happy Buyer**  
**Compound Annual Rate of Return Detail**



Solar Analysis provided by:  
 Andy Black  
 OnGrid Solar  
 (408) 428-0808  
 andy@ongrid.net

OnGrid Solar Sales Tool v2.09  
 © 2006 OnGrid Solar - All Rights Reserved  
 SFA-B4E12MZL3SM9HVAIOM4

Residential Pre-Tax Analysis: After-Tax amounts are adjusted to pre-tax equivalents. Pre-Tax amounts are not adjusted

	Year:												
	0	1	2	3	4	5	6	7	8	9	10	11	12
<b>Operating Savings:</b>													
Avoided electricity Purchases		6,674	6,974	7,288	7,616	7,958	8,317	8,691	9,082	9,491	9,918	10,364	10,830
No REC Value Included													
No Performance Based Incentive Included													
Heating & Air Conditioning Savings													
Roof Maintenance Savings													
<b>Operating Expenses:</b>													
System Maintenance at 0.25% of gross system cost per year		(328)	(339)	(351)	(364)	(376)	(389)	(403)	(417)	(432)	(447)	(462)	(479)
System Capital Cost with Fees, before Rebates	(82,729)												
Rebates	24,770												
Inverter Replacement at \$700 per kW in Year 15													
Energy Efficiency Net Expense													
<b>Operating profit (loss):</b>	<b>(57,959)</b>	<b>6,346</b>	<b>6,635</b>	<b>6,937</b>	<b>7,252</b>	<b>7,582</b>	<b>7,927</b>	<b>8,288</b>	<b>8,665</b>	<b>9,059</b>	<b>9,471</b>	<b>9,901</b>	<b>10,352</b>
<b>Federal &amp; State Tax benefits</b>													
Fed Tax Creditable Basis:	57,959												
30% Federal Tax Credit up to \$2,000, Infl to Pre-Tax	3,190												
State Tax Creditable Basis:	33,189												
No State Tax Credit Available													
<b>No Depreciation Available</b>													
.													
.													
.													
.													
.													
.													
.													
.													
.													
.													
.													
.													
.													
<b>Pre-Tax Net Annual Profit/Loss for IRR</b>	<b>(54,769)</b>	<b>6,346</b>	<b>6,635</b>	<b>6,937</b>	<b>7,252</b>	<b>7,582</b>	<b>7,927</b>	<b>8,288</b>	<b>8,665</b>	<b>9,059</b>	<b>9,471</b>	<b>9,901</b>	<b>10,352</b>
<b>Pre-Tax Cash Flow, Cumulative</b>	<b>(54,769)</b>	<b>(48,424)</b>	<b>(41,789)</b>	<b>(34,852)</b>	<b>(27,600)</b>	<b>(20,018)</b>	<b>(12,091)</b>	<b>(3,803)</b>	<b>4,862</b>	<b>13,921</b>	<b>23,392</b>	<b>33,293</b>	<b>43,645</b>

<---- <---- <---- next 13 years follow below <---- <---- <---- <---- <---- <---- <----

	Year:												
	13	14	15	16	17	18	19	20	21	22	23	24	25
<b>Operating Savings:</b>													
Avoided electricity Purchases	11,318	11,827	12,359	12,915	13,497	14,104	14,739	15,402	16,095	16,819	17,576	18,367	19,194
No REC Value Included													
No Performance Based Incentive Included													
Heating & Air Conditioning Savings													
Roof Maintenance Savings													
<b>Operating Expenses:</b>													
System Maintenance at 0.25% of gross system cost p	(495)	(513)	(531)	(549)	(569)	(588)	(609)	(630)	(652)	(675)	(699)	(723)	(749)
System Capital Cost with Fees, before Rebates													
Inverter Replacement at \$700 per kW in Year 15			(6,669)										
<b>Operating profit (loss):</b>	<b>10,822</b>	<b>11,314</b>	<b>5,160</b>	<b>12,366</b>	<b>12,928</b>	<b>13,516</b>	<b>14,130</b>	<b>14,772</b>	<b>15,443</b>	<b>16,144</b>	<b>16,877</b>	<b>17,644</b>	<b>18,445</b>
<b>Federal &amp; State Tax benefits</b>													
.													
.													
.													
.													
.													
.													
.													
.													
.													
<b>Pre-Tax Net Annual Profit/Loss for IRR</b>	<b>10,822</b>	<b>11,314</b>	<b>5,160</b>	<b>12,366</b>	<b>12,928</b>	<b>13,516</b>	<b>14,130</b>	<b>14,772</b>	<b>15,443</b>	<b>16,144</b>	<b>16,877</b>	<b>17,644</b>	<b>18,445</b>
<b>Pre-Tax Cash Flow, Cumulative</b>	<b>54,467</b>	<b>65,781</b>	<b>70,941</b>	<b>83,307</b>	<b>96,235</b>	<b>109,751</b>	<b>123,880</b>	<b>138,652</b>	<b>154,094</b>	<b>170,238</b>	<b>187,115</b>	<b>204,759</b>	<b>223,204</b>

**ANNUAL RATE OF RETURN**

Pre-Tax Annual Rate of Return

**14.9% IRR (Pre-Tax Rate of Return)**

For comparison with other investments

Additional value as a hedge against future electric rate increases

SFA-B4E12MZL3SM9HVAIOM4



**Mr. Sunny Customer and Ms. Happy Buyer**  
**Loan & Resale Value Annual Detail**



Solar Analysis provided by:  
 Andy Black  
 OnGrid Solar  
 (408) 428-0808  
 andy@ongrid.net

OnGrid Solar Sales Tool v2.09  
 © 2006 OnGrid Solar - All Rights Reserved  
 SFA-B4E12MZL3SM9HVAIOM4

**LOAN:**

Year:	0	1	2	3	4	5	6	7	8	9	10	11	12
Loan Balance	55,959	55,367	54,733	54,055	53,329	52,552	51,721	50,832	49,881	48,863	47,774	46,609	45,362
Payment (monthly)	(376)	(376)	(376)	(376)	(376)	(376)	(376)	(376)	(376)	(376)	(376)	(376)	(376)
Interest (monthly)	(326)	(323)	(319)	(315)	(311)	(307)	(302)	(297)	(291)	(285)	(279)	(272)	(265)
Tax Deduction Benefit (monthly)	122	120	119	118	116	114	113	111	109	106	104	101	99
Net Monthly Loan Cost	(254)	(255)	(257)	(258)	(260)	(261)	(263)	(265)	(267)	(269)	(272)	(274)	(277)
Annual Electric Bill without Solar (what it would be with Lifestyle changes, but without Energy Efficiency)	4,317	4,533	4,759	4,997	5,247	5,509	5,785	6,074	6,378	6,697	7,032	7,383	7,752
New Annual Energy Cost (New Electric Bill plus Maintenance & Inverter Replacement Cost)	338	373	410	450	493	539	588	641	698	758	823	893	967
Loan plus new electric bill, maintenance, inverter replacement	3,386	3,437	3,490	3,548	3,610	3,676	3,748	3,824	3,905	3,992	4,085	4,185	4,292
Cash Flow (annual)	930	1,096	1,269	1,449	1,637	1,833	2,037	2,251	2,473	2,704	2,946	3,198	3,460
Cash Flow (monthly)	78	91	106	121	136	153	170	188	206	225	246	266	288
<b>ACCUMULATED LOAN CASH FLOW:</b>	<b>930</b>	<b>2,026</b>	<b>3,295</b>	<b>4,744</b>	<b>6,381</b>	<b>8,214</b>	<b>10,251</b>	<b>12,502</b>	<b>14,975</b>	<b>17,679</b>	<b>20,625</b>	<b>23,823</b>	<b>27,283</b>

**INCREASED RESALE VALUE:**

Increased resale value factor: 20	79,576	83,198	86,985	90,943	95,081	99,407	103,929	108,656	113,598	118,764	124,165	129,810	135,712
Remaining savings within 25 years	171,802	167,823	163,663	159,314	154,767	150,013	145,042	139,846	134,413	128,733	122,795	116,587	110,096
Effective Resale Value (lesser of 20x annual or remaining 25yr savings)	79,576	83,198	86,985	90,943	95,081	99,407	103,929	108,656	113,598	118,764	122,795	116,587	110,096

<----- <----- <----- next 13 years follow below <----- <----- <----- <----- <----- <----- <-----

**LOAN:**

Year:	13	14	15	16	17	18	19	20	21	22	23	24	25
Loan Balance	45,362	44,028	42,600	41,073	39,438	37,689	35,818	33,816	31,673	29,381	26,928	24,303	21,495
Payment (monthly)	(376)	(376)	(376)	(376)	(376)	(376)	(376)	(376)	(376)	(376)	(376)	(376)	(376)
Interest (monthly)	(265)	(257)	(249)	(240)	(230)	(220)	(209)	(197)	(185)	(171)	(157)	(142)	(125)
Tax Deduction Benefit (monthly)	99	96	93	89	86	82	78	74	69	64	59	53	47
Net Monthly Loan Cost	(277)	(280)	(283)	(286)	(290)	(294)	(298)	(302)	(307)	(312)	(317)	(323)	(329)
Annual Electric Bill without Solar (what it would be with Lifestyle changes, but without Energy Efficiency)	7,752	8,140	8,547	8,974	9,423	9,894	10,389	10,908	11,454	12,026	12,628	13,259	13,922
New Annual Energy Cost (New Electric Bill plus Maintenance & Inverter Replacement Cost)	967	1,046	1,121	1,201	1,286	1,376	1,471	1,571	1,676	1,786	1,901	2,021	2,146
Loan plus new electric bill, maintenance, inverter replacement	4,292	4,406	4,521	4,648	4,789	4,945	5,104	5,273	5,454	5,646	5,852	6,071	6,305
Cash Flow (annual)	3,460	3,734	4,013	4,316	4,626	4,949	5,285	5,635	6,000	6,380	6,776	7,188	7,617
Cash Flow (monthly)	288	311	334	360	386	412	440	470	500	532	565	599	635
<b>ACCUMULATED LOAN CASH FLOW:</b>	<b>27,283</b>	<b>31,018</b>	<b>34,768</b>	<b>38,523</b>	<b>42,283</b>	<b>46,048</b>	<b>49,818</b>	<b>53,593</b>	<b>57,373</b>	<b>61,158</b>	<b>64,948</b>	<b>68,743</b>	<b>72,543</b>

**INCREASED RESALE VALUE:**

Increased resale value factor: 20	135,712	141,881	148,330	155,071	162,118	169,485	177,185	185,235	193,650	202,446	211,640	221,252	231,299
Remaining savings within 25 years	110,096	103,311	96,217	89,469	83,118	77,118	71,513	66,256	61,293	56,670	52,433	48,517	44,966
Effective Resale Value (lesser of 20x annual or remaining 25yr savings)	110,096	103,311	96,217	89,469	83,118	77,118	71,513	66,256	61,293	56,670	52,433	48,517	44,966

**LOAN & RESALE:**  
**25-Year Accumulated Net Positive Loan Cash Flow: \$87,139**  
**Maximum Resale Value: \$122,795 occurs at Year 11**

SFA-B4E12MZL3SM9HVAIOM4