

August 5, 2011

Valued Customer
123 Sunny Lane
Anytown, TN 37303

Dear Valued Customer

We are pleased to submit a proposal for your solar electric energy system. Solar electric systems are environmentally friendly and reduce your reliance on energy from the utility. Instead of renting your electricity from your utility, you can now own your own clean energy production.

We have designed a system that achieves the best energy cost savings for you. This includes an analysis of your energy requirements, a study of the best energy production design and the application of any available state and federal rebates.

We are committed to a quality installation and to ensuring your total satisfaction with our products and service. The next step is signing the necessary agreements so we can reserve your rebate and begin the engineering and permitting processes. This proposal is valid for 30 days.

We look forward to helping you achieve energy independence, make a positive environmental impact, and ensure a great investment. Please contact us with any questions.

Tom Calaway
Tel: 423-745-9570

Summary

Customer
Valued Customer

Site Address
123 Sunny Lane
Anytown, TN 37303

Company Contact
Tom Calaway
JBC SOLAR
11 Long Street
Athens, TN 37303

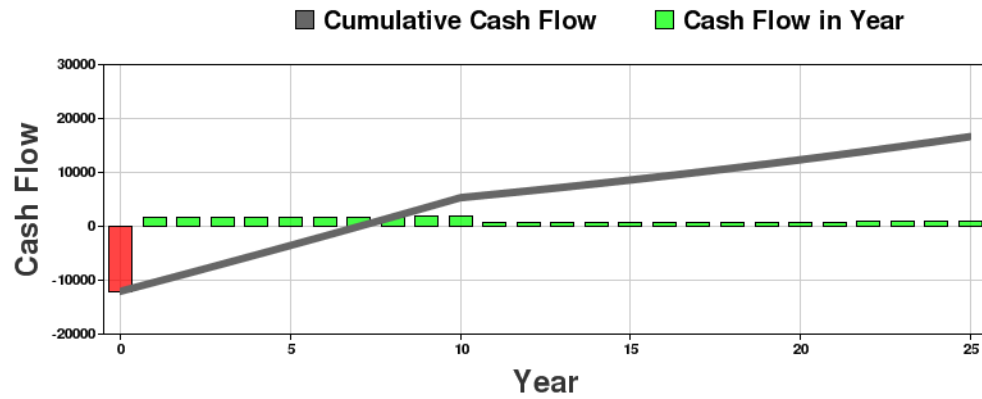
25 Year Financial Analysis			
Utility Savings Over System Life	\$16,710 \$56 / mo (avg)	Payback Period	7-8 years
Total Life-Cycle Payback (Cash Flow compared to Net Cost)	236%	Rate of Return on Cash Invested	10.8%
Levelized Cost of Solar Energy	\$0.109 / kWh	System Resale Value	\$9,480

Cost Breakdown		
Gross System Cost	\$16,999	(\$5.04/watt DC, \$5.94/watt AC)
Sales Tax (9.00%)	\$1,378	
Installer Contract Cost	\$18,377	(\$5.45/watt DC, \$6.43/watt AC)
TVA - Green Power Switch Generation Partners 1k Incentive	(\$1,000)	
Federal Tax Credit/Tax Impact	(\$5,213)	
Net Cost (year of installation)	\$12,164	(\$3.60/watt DC, \$4.25/watt AC)
TVA Generation Partnership Premium buy back	(\$12,000)	
Net Cost (all years)	\$164	(\$0.05/watt DC, \$0.06/watt AC)

System Description	
Total System Size	3,375 kW DC Power (STC) / 2,860 kW AC Power (CEC)
Estimated Annual Production	4,602 kWh
PV Panel Description	15 x Trina Solar Model: TSM-225PA05
Inverters	Qty. 8 - Enphase Energy Model: D380-72-2LL-S1x (-NA)

Financial Analysis

The first chart summarizes the cash flow you can expect from the system quoted. Key financial measures are also provided.



Financial Summary	
Utility Savings Over System Life	\$16,710
Average Monthly Utility Savings	\$56 (over system life)
Net Cost (In year of installation)	\$12,164
Payback Period	7-8 years
Rate of Return on Cash Invested	10.8%
Total Life-Cycle Payback (Cash flow compared to Net Cost)	236%
Levelized Cost of Solar Energy (Net Cost / lifetime energy production)	\$0.109 / kWh

Environmental Impact Analysis

Your solar system will generate significant environmental benefits. These come primarily from avoided power plant emissions. Below is a summary of environmental benefits your solar system will provide.

Your New, Lower Carbon Footprint	
Your solar system will reduce Green House Gas emissions by 75 tons of CO2 (Over 25 years)	
Equivalent CO2 Reductions	
Small Car:	253,559 miles
Medium Car:	136,000 miles
SUV:	95,287 miles
Air Miles:	154,227 miles
Trees Planted:	2,992 trees planted
CO2 from Trash & Waste:	136 persons

Cost Detail & System Description

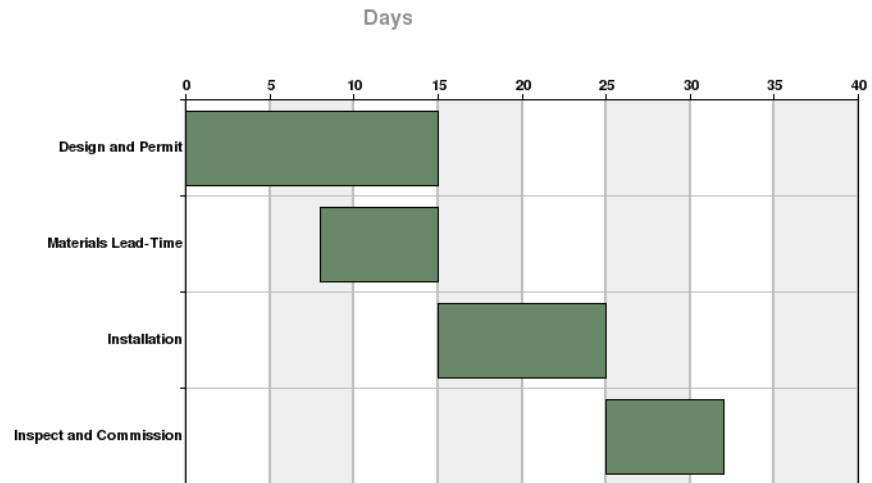
This is a summary of the cost and a description of the solar system we are quoting.

Net Cost Detail	
Major Equipment & Labor	
PV Panels: Qty. 15. Trina Solar, TSM-225PA05, 225W Polycrystalline Module	\$9,182
Inverter: Qty. 8 Enphase Energy, D380-72-2LL-S1x (-NA), 380 W, 208 or 240Vac inverter	\$3,550
Balance of System	\$2,582
Labor	\$2,169
General & Administrative	\$516
Adders, Allowances & Sales Tax	
JBC Solar TVA Rebate Match-up	(\$1,000)
Sales Tax (9.00%)	\$1,378
Gross Cost	\$18,377
Incentives Received in Year of Installation	
TVA - Green Power Switch Generation Partners 1k Incentive	(\$1,000)
Federal Individual Tax Credit (30%)	(\$5,213)
Total Incentives: (In year of installation)	(\$6,213)
Net Cost: (In year of installation)	\$12,164
Contract Cost:	\$18,377
Other Cash Incentives: (In later years)	\$12,000

System Description	
Total System Size:	3.375 kW DC Power (STC) 3.011 kW (PTC) 2.860 kW AC Power (CEC Size)
Net Cost per Watt:	\$3.60 / Watt DC Power (STC) \$4.04 / watt (PTC) \$4.25 / watt AC Power (CEC Size)
Estimated Annual Production:	4,602 kWh
Array 1	
Proposed Array Sizes (STC):	3.375 kW
Number of PV Panels:	15
PV Panel Description:	Trina Solar Model: TSM-225PA05 225W Polycrystalline Module
Inverters:	Qty. 8 Enphase Energy Model: D380-72- 2LL-S1x (-NA) 380 W, 208 or 240Vac inverter
Output due to Shade Factors:	100%
Array Area & Orientation:	Roof Mount: 800 sq-ft Tilt: 34°, Azimuth: 180° (S)

Job Schedule

The job schedule provided below summarizes our schedule for meeting four key milestones.



Disclaimers & Assumptions

Operation, Maintenance, and Inflation Rates

This estimate assumes the following system operation, maintenance and inflation rates:

System Life:	25 years
Operation & Maintenance:	0.01% of system cost per annum
PV Degradation:	0.25% per annum
Estimated Inverter Life:	0 years
O&M and Inverter Replacement Inflation:	0.0% per annum

System Size Ratings & Performance

There are three methods commonly used to rate PV system size: STC, PTC and CEC. The Standard Test Condition rating ("STC" also called "DC" or "nameplate") assumes a standard set of optimal operating conditions. The STC rating is most often used by manufacturers to classify the power output of PV modules. The PV-USA Test Condition ("PTC") and California Energy Commission ("CEC") ratings were designed to approximate system performance in more realistic operating conditions, namely higher cell temperatures and lower light conditions.

The Energy production for the first year is based on PVWatts Version 2 (TMY2 WBAN id = 13891 (Knoxville)). To calculate the system's energy production for any future year, the expected degradation in system performance is included (See "PV Degradation", in table above).

Tax Credits & Deductions

Income tax rate assumed: 33.00% (Federal 33.00% - State: 0.00%)

To calculate the estimated cash flow in this proposal, our analysis used these tax rates. We should stress that we cannot provide tax or investment guidance. You should consult your tax preparer or investment adviser for these services. This analysis calculates the cash flows based only on the assumptions entered into the proposal.

This analysis assumes Federal income Tax is not applied to any rebates. Therefore, the basis for the Federal ITC is the installation cost less 100% of any and all rebates.

Residential:

In calculating the cash flow for an individual, our analysis assumes that the homeowner can deduct the interest from financing the system. This will be true if the financing is secured by the real estate, such as with a second mortgage,

home equity loan, or home equity line of credit.

(Net) Energy Bill Savings

For an individual, electric bills are not usually deductible against income taxes.

For a business, electric bills are usually deductible against income taxes. If an income tax rate is defined, the cash flow displays a "Net" Energy Bill Savings line item which is the Energy Bill Savings less the loss in tax deduction due to the PV system's lowering of the electric bill. Cost inflation for the utility rate and degradation of system performance are also taken into account.

Average Monthly Utility Savings

"Average Monthly Utility Savings" is the average monthly (Net) Energy Bill Savings expected over the system life. This takes into account utility rate inflation and any expected degradation in system performance. This estimate has not assumed any changes in the amount or timing in your building's energy use.

Rate of Return (IRR) on Cash Invested

"Rate of Return on Cash Invested" (also called "Internal Rate of Return" or "IRR") is the annual compounded rate of return that the cash flows (savings, incentives, tax benefits, etc.) bring based upon the net cash invested in the year of installation ("Year 0"). In financial math terms, IRR is the discount rate required to make the sum of the present values of each annual cash flow equal zero. If you financed your system 100%, IRR does not apply since you did not actually invest cash.

System Resale Value

"System Resale Value" is based upon research published in the Appraisal Journal which concluded that "The increase in appraisal value for a home is about twenty (20) times the annual reduction in operating costs due to energy efficiency measures." To calculate System Resale Value the first year annual utility savings is multiplied by twenty (20). Source: [Evidence of Rational Market Valuations for Home Energy Efficiency](#), Appraisal Journal, Nevin/Watson, October 1998

Total Life-Cycle Payback

"Total Life-Cycle Payback" is the total cash flows (savings, incentives, tax benefits, etc.) for all years after installation as a percentage of the net cash invested in the year of installation ("Year 0"). This ROI calculation is not adjusted for inflation or the time-value of money.

Levelized Cost of Energy

"Levelized Cost of Energy" (or LCOE) is an approximation of the average cost of energy from your solar system (\$/kWh). To determine LCOE, the system Net Cost (\$) in the installation year is divided by the amount of energy produced (kWh) over the system life (years). For this calculation, energy produced over system life is limited to the annual energy consumption of the building times the system life in years. The Net Cost does not include incentives which may materialize in later years, such as tax credits or deductions or production rebates. This calculation is not adjusted for the time-value of money.

Environmental Analysis

CO₂ gas emissions avoided per passenger via various travel methods:

Travel Method	Emissions / mile
Small Car	.59 pounds
Medium Car	1.10 pounds
SUV/4 Wheel Drive	1.57 pounds
Airplane (Boeing 747)	0.97 pounds

Air travel average USA capacity.

Tree offset calculation is based on a tree planted in the humid tropics absorbing on average 50 pounds (22 kg) of carbon dioxide annually over 40 years - each tree will absorb 1 ton of CO₂ over its lifetime; but as trees grow, they compete for resources and some may die or be destroyed - not all will achieve their full carbon sequestration potential. This calculator assumes that 5 trees should be planted to ensure that at least one lives to 40 years or that their combined sequestration equals 1 ton.

General waste is based on the USA average carbon dioxide emission equivalent of 1,010 pounds per person per year.

Sources: [Sightline Institute](#), [Trees for the Future](#) and [USA Environmental Protection Agency](#)

Electric Utility Rates & Assumptions

Utility:	Athens Utility Board
Rate Name (Post Installation):	AUB Residential
Rate Code:	22
Annual Inflation:	3.0% (assumed)

Utility Electric Rate Inflation: Historical References

National Averages: In 2009, the average retail electricity price for all customers across the United States rose to 9.83 cents per kWh, a small increase over 2008. Over the two year period though, from 2007 to 2009, the average retail price rose 7.7 percent.

In 2009, residential retail prices nationally increased from 11.26 cents per kWh in 2008 to 11.51 cents per kWh.

See the following Dept of Energy source for more detail on regional and state inflation patterns.

Source: http://www.eia.doe.gov/cneaf/electricity/esr/esr_sum.html
