

Publi Max Printing
NY 11385

Dear Publi Max Printing

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.

Rachel Quiles
Tel: 212-324-8787

Summary

Customer
Publi Max Printing

Site Address
NY 11385

Company Contact
Rachel Quiles
A Pro Solar
621 Francis Ave.
Brooklyn, NY, NY 13245

Financial Analysis			
Utility Savings Over System Life	\$62,822 \$209 / mo (avg)	Reduction in Green House Gas Emissions	206 tons of CO2
Levelized Cost of Solar Energy	-\$0.05 / kWh		

Cost Breakdown		
Installer Contract Cost	\$34,089	(-\$3.25/watt DC, -\$3.93/watt AC)
NYSERDA - PV Incentive Program for Commercial	(\$26,250)	
NYSERDA - PV Incentive Program for Comm w/BIPV (PON 1050)	(\$6,840)	
Federal Tax Credit/Tax Impact	(\$4,370)	
Net Cost (year of installation)	(\$3,371)	(-\$0.32/watt DC, -\$0.39/watt AC)
MACRS Depreciation	\$1,228	
Net Cost (all years)	(\$2,143)	(-\$0.20/watt DC, -\$0.25/watt AC)

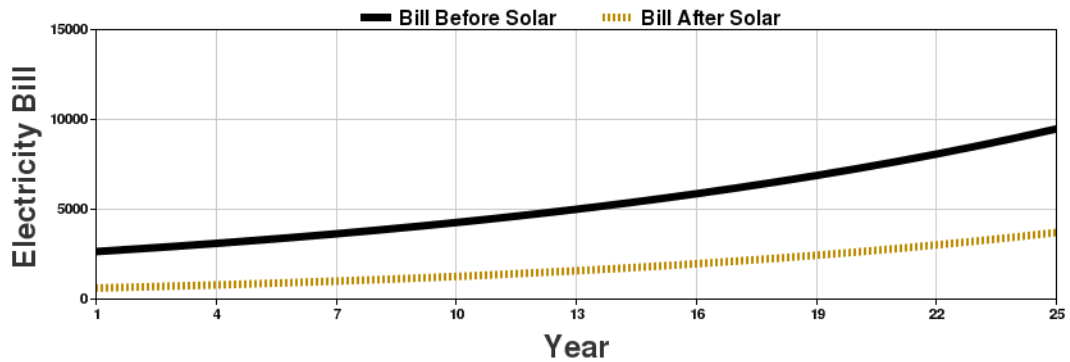
System Description	
Total System Size	10.500 kW DC Power (STC) / 8.669 kW AC Power (CEC)
Estimated Annual Production	12,009 kWh
PV Panel Description	60 x Yingli Energy (China) Co Ltd Model: YL175P-23b
Inverters	Qty. 2 - SMA America Model: SB5000US (277V)

Energy Analysis

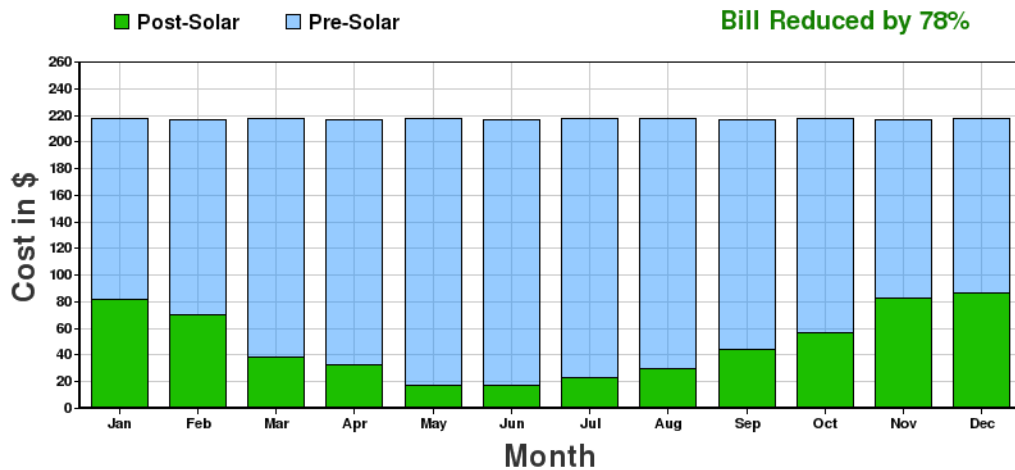
We have summarized your historical energy usage. This was used to help size your solar system. Based upon the system size suggested, the expected energy bill savings over a 25 year period are provided. And finally, the first-year energy bill savings you can expect are provided together with a graph of the monthly solar system output (PV supply) you can expect.

Solar "fixes" your utility bill as a hedge against utility rate inflation.

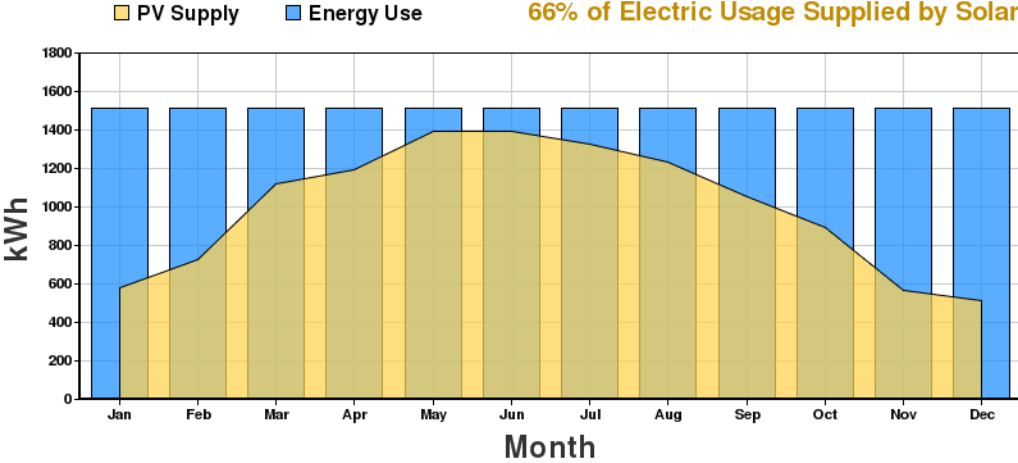
Annual Utility Costs Over Time



Monthly Electric Bill Savings



Monthly Electricity Use and Amount Supplied by Solar



Assumptions: Post-Solar Electric Rate Schedule for New York State Elec & Gas Corp is Nonresidential (Rate Code: VPO) Annual utility inflation: 5.50% (assumed). Energy Bill Savings are actual, without any tax effects applied.

Energy Bill Estimate

The following energy bill estimate is without any tax effects applied.

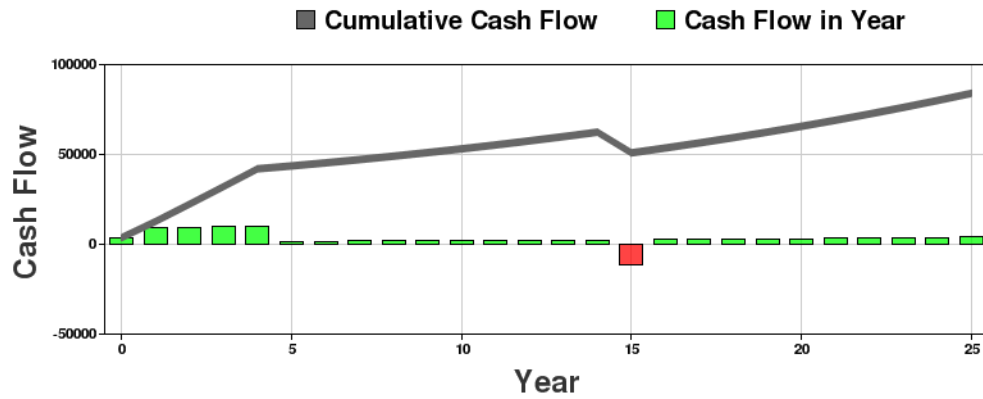
(kWh)	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>	<u>Annual</u>
Total Usage	1,511	1,511	1,511	1,511	1,511	1,511	1,511	1,511	1,511	1,511	1,511	1,511	18.1k
Solar Production	580	727	1,124	1,192	1,394	1,397	1,328	1,234	1,055	895	570	515	12.0k
Energy to Purchase	931	784	388	319	117	115	183	277	456	616	941	997	6,123

(Cost)	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>	<u>Annual</u>
Pre-solar*	\$218	\$217	\$218	\$217	\$218	\$217	\$218	\$218	\$217	\$218	\$217	\$218	\$2,611
Post-solar*	\$82	\$70	\$39	\$33	\$17	\$17	\$23	\$30	\$44	\$57	\$83	\$87	\$582
Energy Bill Savings	\$136	\$147	\$179	\$184	\$201	\$200	\$195	\$188	\$173	\$161	\$134	\$131	\$2,029

*Includes rate inflation

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	\$62,822
Average Monthly Utility Savings	\$209 (over system life)
Loan Value:	\$0
Net Cost (In year of installation)	(\$3,371)
Total Life-Cycle Payback (Cash flow compared to Net Cost)	--
Levelized Cost of Solar Energy (Net Cost / lifetime energy production)	-\$0.05 / 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 206 tons of CO2 (Over 25 years)	
Equivalent CO2 Reductions	
Small Car:	697,288 miles
Medium Car:	374,000 miles
SUV:	262,038 miles
Air Miles:	424,124 miles
Trees Planted:	8,228 trees planted
CO2 from Trash & Waste:	374 persons

Cost Detail & System Description

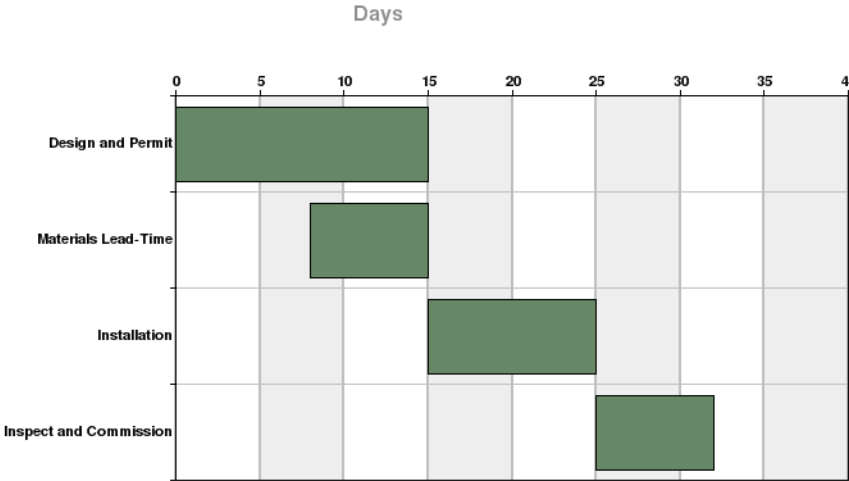
This is a summary of the cost and a description of the solar system we are quoting.

Net Cost Detail	
Gross Cost	\$34,089
Total Incentives: (In year of installation)	(\$37,460)
Net Cost: (In year of installation)	(\$3,371)
Contract Cost:	\$34,089

System Description	
Total System Size:	10.500 kW DC Power (STC) 9.078 kW (PTC) 8.669 kW AC Power (CEC Size)
Net Cost per Watt:	-\$1.43 / Watt DC Power (STC) -\$1.66 / watt (PTC) -\$1.74 / watt AC Power (CEC Size)
Estimated Annual Production:	12,009 kWh
Array 1	
Proposed Array Sizes (STC):	10.500 kW
Number of PV Panels:	60
PV Panel Description:	Yingli Energy (China) Co Ltd Model: YL175P-23b 175W Polycrystalline Module
Inverters:	Qty. 2 SMA America Model: SB5000US (277V) 5kW 277Vac Sunny Boy Utility Interactive Inverter with display
Output due to Shade Factors:	100%
Array Area & Orientation:	Roof Mount: 3,000 sq-ft Tilt: 10°, Azimuth: 180° (S)

Job Schedule

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



Cash Flow by Year

The following table of estimated cash flows includes any tax effects, rate and cost inflation and other time-related cash flow factors. Refer to the Disclaimers & Assumptions section (below) for further clarification.

Year:	0	1	2	3	4
Installation, Operation & Maintenance Costs	(\$34,089)	(\$17)	(\$18)	(\$18)	(\$19)
NYSERDA - PV Incentive Program for Comm w/BIPV (PON 1050)	\$6,840	\$0	\$0	\$0	\$0
NYSERDA - PV Incentive Program for Commercial	\$26,250	\$0	\$0	\$0	\$0
Federal ITC Grant (Section 1603 payment)	(\$1,445)	\$0	\$0	\$0	\$0
NY State Personal Tax Credit (Gross System Cost)	\$3,420	\$0	\$0	\$0	\$0
NY State Personal Tax Credit (Net System Cost)	\$2,394	\$0	\$0	\$0	\$0
NYC - Property Tax Abatement for PV installed by 2011	\$0	\$8,352	\$8,352	\$8,352	\$8,352
MACRS 5-year Accelerated Depreciation (Fed & State Tax Avoided)	\$0	(\$737)	(\$196)	(\$118)	(\$71)
Annual Utility Savings (Includes Rate Inflation with tax effects applied)	\$0	\$1,420	\$1,484	\$1,549	\$1,618
Total Annual Cash Flow	\$3,371	\$9,018	\$9,622	\$9,765	\$9,880
Cumulative Cash Flow	\$3,371	\$12,389	\$22,011	\$31,776	\$41,656

Year:	5	6	7	8	9
Installation, Operation & Maintenance Costs	(\$20)	(\$20)	(\$21)	(\$22)	(\$23)
NYSERDA - PV Incentive Program for Comm w/BIPV (PON 1050)	\$0	\$0	\$0	\$0	\$0
NYSERDA - PV Incentive Program for Commercial	\$0	\$0	\$0	\$0	\$0
Federal ITC Grant (Section 1603 payment)	\$0	\$0	\$0	\$0	\$0
NY State Personal Tax Credit (Gross System Cost)	\$0	\$0	\$0	\$0	\$0
NY State Personal Tax Credit (Net System Cost)	\$0	\$0	\$0	\$0	\$0
NYC - Property Tax Abatement for PV installed by 2011	\$0	\$0	\$0	\$0	\$0
MACRS 5-year Accelerated Depreciation (Fed & State Tax Avoided)	(\$71)	(\$35)	\$0	\$0	\$0
Annual Utility Savings (Includes Rate Inflation with tax effects applied)	\$1,690	\$1,765	\$1,844	\$1,926	\$2,011
Total Annual Cash Flow	\$1,599	\$1,710	\$1,823	\$1,904	\$1,988
Cumulative Cash Flow	\$43,255	\$44,965	\$46,788	\$48,692	\$50,680

Year:	10	11	12	13	14
Installation, Operation & Maintenance Costs	(\$24)	(\$24)	(\$25)	(\$26)	(\$27)
NYSERDA - PV Incentive Program for Comm w/BIPV (PON 1050)	\$0	\$0	\$0	\$0	\$0
NYSERDA - PV Incentive Program for Commercial	\$0	\$0	\$0	\$0	\$0
Federal ITC Grant (Section 1603 payment)	\$0	\$0	\$0	\$0	\$0
NY State Personal Tax Credit (Gross System Cost)	\$0	\$0	\$0	\$0	\$0
NY State Personal Tax Credit (Net System Cost)	\$0	\$0	\$0	\$0	\$0
NYC - Property Tax Abatement for PV installed by 2011	\$0	\$0	\$0	\$0	\$0
MACRS 5-year Accelerated Depreciation (Fed & State Tax Avoided)	\$0	\$0	\$0	\$0	\$0
Annual Utility Savings (Includes Rate Inflation with tax effects applied)	\$2,101	\$2,194	\$2,291	\$2,393	\$2,500
Total Annual Cash Flow	\$2,077	\$2,170	\$2,266	\$2,367	\$2,473
Cumulative Cash Flow	\$52,757	\$54,927	\$57,193	\$59,560	\$62,033

Year:	15	16	17	18	19
Installation, Operation & Maintenance Costs	(\$14,101)	(\$29)	(\$30)	(\$31)	(\$32)
NYSERDA - PV Incentive Program for Comm w/BIPV (PON 1050)	\$0	\$0	\$0	\$0	\$0
NYSERDA - PV Incentive Program for Commercial	\$0	\$0	\$0	\$0	\$0
Federal ITC Grant (Section 1603 payment)	\$0	\$0	\$0	\$0	\$0
NY State Personal Tax Credit (Gross System Cost)	\$0	\$0	\$0	\$0	\$0
NY State Personal Tax Credit (Net System Cost)	\$0	\$0	\$0	\$0	\$0
NYC - Property Tax Abatement for PV installed by 2011	\$0	\$0	\$0	\$0	\$0
MACRS 5-year Accelerated Depreciation (Fed & State Tax Avoided)	\$0	\$0	\$0	\$0	\$0
Annual Utility Savings (Includes Rate Inflation with tax effects applied)	\$2,611	\$2,727	\$2,848	\$2,975	\$3,107
Total Annual Cash Flow	(\$11,490)	\$2,698	\$2,818	\$2,944	\$3,075
Cumulative Cash Flow	\$50,543	\$53,241	\$56,059	\$59,003	\$62,078

Year:	20	21	22	23	24	25
Installation, Operation & Maintenance Costs	(\$33)	(\$35)	(\$36)	(\$37)	(\$38)	(\$40)
NYSERDA - PV Incentive Program for Comm w/BIPV (PON 1050)	\$0	\$0	\$0	\$0	\$0	\$0
NYSERDA - PV Incentive Program for Commercial	\$0	\$0	\$0	\$0	\$0	\$0
Federal ITC Grant (Section 1603 payment)	\$0	\$0	\$0	\$0	\$0	\$0

Proposal for Publi Max Printing

NY State Personal Tax Credit (Gross System Cost)	\$0	\$0	\$0	\$0	\$0	\$0
NY State Personal Tax Credit (Net System Cost)	\$0	\$0	\$0	\$0	\$0	\$0
NYC - Property Tax Abatement for PV installed by 2011	\$0	\$0	\$0	\$0	\$0	\$0
MACRS 5-year Accelerated Depreciation (Fed & State Tax Avoided)	\$0	\$0	\$0	\$0	\$0	\$0
Annual Utility Savings (Includes Rate Inflation with tax effects applied)	\$3,245	\$3,390	\$3,540	\$3,698	\$3,862	\$4,033
Total Annual Cash Flow	\$3,212	\$3,355	\$3,504	\$3,661	\$3,824	\$3,993
Cumulative Cash Flow	\$65,290	\$68,645	\$72,149	\$75,810	\$79,634	\$83,627

Quotation & Contract for a Renewable Energy Power System

A Pro Solar
 621 Francis Ave.
 Brooklyn, NY, NY 13245

Sales Consultant
 Rachel Quiles
 Tel: 212-324-8787
 Email: rquiles2@aol.com

Client
 Publi Max Printing

Site Address
 Publi Max Printing
 NY 11385

Mailing Address:
 same as site address

Project Description & Major Components	
Array 1: Roof Mount	System Size: 10.500 kW DC, STC (-\$1.43/ DC watt) System Size: 8.669 kW AC, CEC (-\$1.74/ AC watt)
<p>Major System Components PV Panels: Qty: 60 - mfg 333: Yingli Energy (China) Co Ltd Model: YL175P-23b. 175W Polycrystalline Module.</p> <p>Inverter(s): Qty: 2 - mfg 158: SMA America Model: SB5000US (277V). 5kW 277Vac Sunny Boy Utility Interactive Inverter with display.</p>	<p>Standard Components Racking and mounting components per Uniform Building Code. AC and DC disconnects per National Electric Code and Utility. Wiring, conduit and overcurrent protection per National Electric Code. Roofing sealant and flashings as required.</p>
<p>Standard Labor: Design system and secure basic building or electrical permit (architectural, planning commission or other reviews are extra). Install specified system in good workman like manner. Complete and submit utility interconnection documents (if any). Coordinate building, electrical and utility inspections (as applicable).</p>	
<p>Additional Components & Allowances:</p> <p><input type="checkbox"/> Suny Boy Web Box Monitor <input type="checkbox"/> AC Copper Wire and DC Wire Run with BOS <input type="checkbox"/> Rapid Rac 60 Raes with 10 Anchor Supports <input type="checkbox"/> Ballast Block <input type="checkbox"/> Permits, Licences, Fees, and Administrative Cost Estimated</p>	

System Pricing Details	
Installed System Price: Includes Sales tax and Shipping (before incentives)	\$34,089
Less Rebate(s) to be Received by Installer:	\$0
Contract Net Cost:	\$34,089
Time for Completion:	
Construction Commencement Schedule:	
<p>Additional Contract Provisions: All payments are due Net 10 days. 1% interest per month carrying charge. System completion occurs upon building or electrical inspectors permit signoff. Utility inspection typically occurs 4 to 14 days after permit signoff. Quoted system price includes permit and electric utility fees. This PV system includes a/the 10-year warranty required by the California Solar Initiative.</p>	
Acceptance	
<p>This quotation is valid for 14 days from the above date, quoted schedule is valid for 3 days. If the customer decides to purchase the goods and services outlined above, this document shall become part of the Agreement for Supply and Installation of a Renewable Energy Power System which specifies additional terms and boilerplate consumer rights as part of a Home Improvement Contract.</p>	
Salesperson Signature:	Date:
To be signed when customer decides to purchase	
Customer Acceptance Signature:	Date:

Terms & Conditions of Sale

General Provisions

Any alteration or deviation from the above specifications, including but not limited to any such alteration or deviation involving additional material and/or labor costs, will be executed only upon a written order for same, signed by Owner and Contractor, and if there is any charge for such alteration or deviation, the additional charge will be added to the contract price of this contract. If payment is not made when due, Contractor may suspend work on the job until such time as all payments due have been made. A failure to make payment for a period in excess of 15 days from the due date of the payment shall be deemed a material breach of this contract.

In addition, the following general provisions apply:

- All work shall be completed in a workman-like manner and in compliance with all building codes and other applicable laws.
- To the extent required by law all work shall be performed by individuals duly licensed and authorized by law to perform said work.
- Contractor shall furnish Owner appropriate releases or waivers of lien for all work performed or materials provided at the time the next periodic payment shall be due.
- All change orders shall be in writing and signed both by Owner and Contractor, and shall be incorporated in, and become a part of the contract.
- Contractor warrants it is adequately insured for injury to its employees and others incurring loss or injury as a result of the acts of Contractor or its employees or subcontractors.
- Contractor shall obtain all permits necessary for the work to be performed. The actual cost due for any permits to be obtained will be passed on to the Owner.
- Contractor agrees to remove all debris and leave the premises in broom clean condition.
- In the event Owner shall fail to pay any periodic or installment payment due hereunder, Contractor may cease work without breach pending payment or resolution of any dispute
- All disputes hereunder shall be resolved by binding arbitration in accordance with rules of the American Arbitration Association.
- Contractor shall not be liable for any delay due to circumstances beyond its control including strikes, casualty or general unavailability of materials.
- Contractor warrants all work for a period of one hundred and twenty months following completion.

FAILURE BY CONTRACTOR WITHOUT LAWFUL EXCUSE TO SUBSTANTIALLY COMMENCE WORK WITHIN TWENTY (20) DAYS FROM THE APPROXIMATE DATE SPECIFIED IN THE PROPOSAL AND

CONTRACT WHEN WORK WILL BEGIN IS A VIOLATION OF THE CONTRACTOR'S LICENSE LAW.

Other Terms

The following terms and conditions apply to the payment schedule:

- If the payment schedule contained in the contract provides for a down payment to be paid to Contractor by Owner before the commencement of work, such down payment shall not exceed One Thousand Dollars (\$1,000) or 10% of the contract price, excluding finance charges, whichever is the lesser.
- In no event shall the payment schedule provide for Contractor to receive, nor shall Contractor actually receive, payment in excess of 100% of the value of the work performed on the project at any time, excluding finance charges, except that Contractor may receive an initial down payment authorized by condition (1) above.
- A failure by Contractor without lawful excuse to substantially commence work within twenty (20) days of the approximate date specified in this Contract when work will begin shall postpone the next succeeding payment to Contractor for that period of time equivalent to the time between when substantial commencement was to have occurred and when it did occur.

The terms and conditions set forth above pertaining to the payment schedule shall not apply when the contract provides for Contractor to furnish a performance and payment bond, lien and completion bond, bond equivalent, or joint control approved by the Registrar of Contractors covering full performance and completion of the contract and such bonds or joint control is or are furnished by Contractor, or when the parties agree for full payment to be made upon or for a schedule of payments to commence after satisfactory completion of the project.

If the contract provides for a payment of a salesperson's commission out of the contract price, that payment shall be made on a pro rata basis in proportion to the schedule of payments made to the contractor by the disbursing party.

Notice of Right to Cancellation

NOTICE TO OWNER (Section 7018.5 California Contractors License Law) THE LAW REQUIRES THAT, BEFORE A LICENSED CONTRACTOR CAN ENTER INTO A CONTRACT WITH YOU FOR A WORK OF IMPROVEMENT ON YOUR PROPERTY, HE MUST GIVE YOU A COPY OF THIS NOTICE.

Under the California Mechanics` Lien Law, any contractor, subcontractor, laborer, supplier, or other person or entity who helps to improve your property, but is not paid for his or her work or supplies, has a right to place a lien on your home, land, or property where the work was performed and to sue you in court to obtain payment. This means that after a court hearing; your home, land, and property could be sold by a court officer and the proceeds of the sale used to satisfy what you owe. This can happen even if you have paid your contractor in full if the contractor's subcontractors, laborers, or suppliers remain unpaid. To preserve their rights to file a claim or lien against your property, certain claimants such as subcontractors or material suppliers are each required to provide a document called a "Preliminary Notice." Contractors and laborers who contract with owners directly do not have to provide such notice since you are aware of their existence as an owner. A preliminary notice is not a lien against your property. Its purpose is to notify you of persons or entities that may have a right to file a lien against your property if they are not paid. In order to perfect their lien rights, a contractor, subcontractor, supplier, or laborer must file a mechanics` lien with the county recorder that then becomes a recorded lien against your property. Generally, the maximum time allowed for filing a mechanics` lien against your property is 90 days after substantial completion of your project.

The Notice of Cancellation, regarding your right to cancel this contract, is attached hereto and made a part to this contract.

NOTICE OF RIGHT TO CANCEL:

Notice of Cancellation _____ (enter date of transaction)

You may cancel this transaction, without any penalty or obligation, within three business days from the above date. If you cancel, any property traded in, payments made under the contract or sale, and any negotiable instrument executed by you will be returned within 10 days following receipt by the seller of your cancellation notice. Additionally, any security interest arising out of the transaction will be canceled. If you cancel, you must make available to the seller at your residence, in substantially as good condition as when received, any goods delivered to you under this contract or sale, or you may, if you wish, comply with the instructions of the seller regarding the return shipment of the goods at the seller`s expense and risk.

If you do make the goods available to the seller and the seller does not pick them up within 20 days of the date of

your notice of cancellation, you may retain or dispose of the goods without any further obligation.

If you fail to make the goods available to the seller, or if you agree to return the goods to the seller and fail to do so, then you remain liable for performance of all obligations under the contract.

To cancel this transaction, mail or deliver a signed and dated copy of this cancellation notice, or any other written notice, or send a telegram to:

Contractor Name and Address:

No later than midnight of _____ (date)

I hereby cancel this transaction _____ (date)

(Buyer`s Signature)

Disclaimers & Assumptions

Operation, Maintenance and Inflation Rates

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

System Life:	25 years
Operation & Maintenance:	0.05% of system cost per annum
PV Degradation:	1.00% per annum
Inverter Life:	15 years
General Inflation:	3.5% 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 operation 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 accommodate operating conditions which may be a closer approximate to the performance realized from your PV modules.

To calculate the system's energy production over any given year, a calculation of the expected degradation in system performance is included (See "PV Degradation", above).

Tax Credits & Deductions

Income tax rate assumed: 30.00% (Federal 30.00% - State: 0.00%)

To calculate the estimated cash flow in this proposal, our analysis used the tax rates you provided earlier in the set-up. 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 state or local incentives. Therefore, the basis for the Federal ITC is the installation cost less 100% of any and all state or local incentives.

Commercial:

In calculating the cash flow for a business, our analysis assumes that your beginning utility expense is a tax

deductible business expense. Since your beginning utility bill will be reduced by installing the solar energy system, our analysis takes this into account.

It also assumes that when you install your solar energy system, you will be able to receive tax benefits from the investment tax credit, depreciation of the equipment, annual maintenance expense, and interest used in financing. Unlike a residential system, the financing does not have to be secured by real estate in order for the interest to qualify as a tax deduction. Clean Power Finance can arrange this financing for you.

MACRS Depreciation: Any commercial entity that invests in or purchases qualified solar energy property may use the Modified Accelerated Cost Recovery System (MACRS) accelerated depreciation schedule: Year 1=20.00%, Year 2=32.00%, Year 3=19.20%, Year 4=11.52%, Year 5=11.52%, Year 6=5.76%. The Federal Economic Stimulus Act of 2008 included a 50% bonus depreciation for eligible renewable energy systems placed in service in 2008 or 2009. For this analysis the MACRS depreciation schedule is 50% of the basis value in year 1, with the remaining 50% of the adjusted basis value depreciated over the ordinary depreciation schedule. This analysis assumes Federal income Tax is not applied to any state or local incentives. Therefore, the basis for depreciation is the installation cost less 50% of any Federal energy tax credits less 100% of any and all state or local incentives received in year 0. See IRS Publications 946 and 587.

In this analysis, year 0 is the year in which the solar energy system is installed. Our analysis assumes that you will receive the Investment Tax Credit and apply it to your income tax for year 0.

For all following years, tax deductions are applied to the year in which they occurred. The tax effect of deductions in year 1 are applied to year 1, and so forth.

Annual Utility Savings

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

For a business, electric bill are usually deductible against income taxes. Our analysis takes into the deductibility of the beginning and ending utility bills. Cost inflation assumed 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 annual utility bill savings expected across 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

"Internal Rate of Return (IRR) on Cash Invested" is the rate of return (annual compounded) that the cash flows (savings, incentives, tax benefits, etc.) bring based upon the amount of cash invested upon installation. If you financed your system 100%, IRR does not apply since you did not actually invest cash.

Total Life-Cycle Payback

"Total Life-Cycle Payback" is the rate of return (%) the invested Net Cost (in the installation year) yields over the system's expected life. 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.

Levelized Cost of Energy

"Levelized Cost of Energy" is an approximation of the average cost of energy from your solar system. To determine Levelized Cost the system Net Cost (in the installation year) is divided by the amount of energy produced over the system life. For this calculation, energy produced over system life is limited to the annual energy demand of the building times assumed 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

Small car emissions calculated on .59 pounds emissions per passenger, per mile. Medium car emissions calculations based on 1.1 pounds of carbon dioxide emissions per mile. SUV/4 wheel drive carbon dioxide emissions based on 1.57 pounds per mile.

Air travel emissions based on 0.97 pounds per passenger mile, based on a Boeing 747 at average USA capacity and calculated per person. Train travel calculations based on average occupancy of intercity train.

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:	New York State Elec & Gas Corp
Rate Name (Post Installation):	Nonresidential
Rate Code:	VPO
Annual Inflation:	5.5% (assumed)

About Utility Average Costs

Demand Rates: With "demand rates" a portion of your utility bill is a demand rate times the peak demand measured in the month. You may find that solar does reduce your demand charges. However, for this analysis it is assumed that solar will not reduce the measured peak demand, and thus demand charges will not change with solar installed. Please note, demand rates can come with high monthly metering fees. In this case, the average cost per kWh may actually be higher since the metering fees must now be allocated across the smaller amount of electricity you purchased from the utility after a solar installation.

Annual Electric Bill "True-Up" (Reconciliation): This analysis assumes you will receive a credit from your electric utility at the end of the year for any excess amounts you paid to your utility on balance for the year. Sometimes this is referred to as a utility bill "true up". This action balances your bill across the year: often in summer months your solar system may provide excess electricity ("spin the meter backwards"), compared to winter months. So you receive "credits" in summer for excess energy generated. At the end of the year these credits may be applied to months where you purchased electricity (usually winter months). This analysis assumes your total annual utility bill will not be less than zero (\$0) or less than any minimum utility customer charges, as applicable.

Utility Electric Rate Inflation: Historical References

In 2006, the average retail electricity price for all customers across the United States rose to 8.9 cents per kWh, a sharp increase of three-fourths of a cent from the 2005 price level. The 9.3 percent increase was the largest since 1981.

Fourteen States and the District of Columbia saw the average price of electricity rise by 10 percent or more from 2005 to 2006. Prices increased in all regions of the country but most of the larger increases occurred in the East. Another 14 States saw increases between 5 and 10 percent between 2005 and 2006. States with restructuring programs such as Maryland and Delaware had portions of their retail electricity price caps lifted in 2006, contributing to significant price hikes.

Average industrial prices increased to 6.2 cents per kWh, or 7.5 percent above 2005. Average commercial prices increased to 9.5 cents per kWh, a 9.1 percent increase. In Texas, where the largest volume of industrial sales on a State level occurs, industrial prices increased almost 10 percent. About two-thirds of the industrial market in Texas is now served by energy service providers. Of the remaining one-third, investor-owned utilities served 17.1 percent;

distribution cooperatives served 7.5 percent, and municipal utilities 6.2 percent. In the six New England States, average industrial prices increased more than 28 percent.

Residential prices increased to 10.4 cents per kWh, almost a cent, or 10.1 percent, between 2005 and 2006. Average residential prices rose sharply in New England and the West South Central Census Divisions as Connecticut and Texas had large price increases for the second year in a row. Delaware had the highest average residential price increase at almost 30 percent.

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