PureLogic
CLEAN ENERGY SYSTEMS

Proposal for Solar PV

Prepared By:

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Prepared For:

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Introduction

Thank you for allowing Pure Logic Clean Energy Systems to prepare this proposal for you. In the USVI electric rates are 4 times higher than the average continental rate and they fluctuate unpredictably. Solar PV has become a very wise investment, partly due to tax credits, rebates, Feed-In-Tarrifs and accelerated depreciation which have contributed to the rapid expansion of solar PV throughout the world. As a result, this very reliable 57-year old technology is being implemented on a massive scale as the world transitions to clean, sustainable energy systems.

Pure Logic is a licensed, insured, full service solar integrator. Our team will be responsible for:

- Assistance in funding procurement
- Design and Schematics
- Structural and Electrical Engineering
- Permitting
- Rebate paperwork management
- Full project management
- Installation
- Electrical Interconnection
- System Commissioning
- Inspection Coordination
- Maintenance training
- Safety training
- Warranty

Proposed System:

Summary		
System Size	120.8	kW DC
Cost	$609,721	
Annual Production	164,929	kWh
Location	Roof and Ground	
Annual Production		
First Year	$92,360	
Total for 25 Years	$3,201,208	
Pay Back Period	~4.5 Years	

System Details:

Solar PV System:

- System will be Grid-Tied
- Siliken 250 Watt modules on existing roof and ground
- SMA Sunny Boy inverters (Qty., size and model to be determined at system design for optimum power output and overall performance)
- S-Flex Aluminum/SS attachment hardware

Mounting plan:

System to be mounted to existing roof and ground using S-Flex mounting system.
Includes all required AC hardware/devices to complete interconnection. (Pure Logic agrees to comply with all NEC and local building and electric codes.)
- Remote system monitoring is included.

Schedule: TBD

Options:
1. Sunny SensorBox Weather station for advanced monitoring
2. Back up option: Sunny Island
3. Colored modules, ie; green to blend in with the enviroment

Equipment Details:

Quantity	Type	Make	Model
483	Modules	Siliken	250
17	Inverters	SMA	SB7000US
n/a	Racking System	S-Flex	Roof and Ground
1	Monitoring System	SMA	Sunny Web Box

Benefits of switching to Solar Energy

Environmental Benefits
Installing solar will help you reach your personal or corporate environmental objectives, reduce carbon dioxide emissions and other air pollutants, and help prevent climate change and a host of other environmental and public health threats caused by fossil fuel energy.

Energy Savings
A solar system on your building or property means you can both use the PV electricity and sell it to your utility for credit to lower your utility bills. When the system generates more electricity than needed, your electricity meter will run backward. If you need more electricity than the system generates, you use electricity from your utility as usual. Called "net-metering," it reduces an electricity bill to the difference between how much a solar system produces and how much electricity is used.

Price Stability
Electricity rates in the USVI increase as fuel prices increase, but the cost of sunlight never changes-it's always free. When electricity from WAPA becomes more expensive, your solar system saves you more money and pays for itself even faster.

Reliability
Facilities that operate sensitive technology or need backup power for added reliability in case of brownout or grid failure find solar-battery systems an attractive alternative to diesel generators, which pollute and can be expensive to maintain. With solar you can truly be independent of WAPA and enjoy 100% uptime, even when the grid goes down. During grid failure, our backup systems will switch automatically from Grid-Tied to Off-Grid within milliseconds.

Brand Enhancement
After installing a solar system, a business may qualify as a Certified Green Business, thus improving the company's profile, marketing potential, and product distinction. Green businesses attract a growing number of consumers who are looking for businesses committed to environmental stewardship. Certified Green Businesses also report that their environmental initiatives increase employee satisfaction.

Additional Considerations:

Benefits:
1. Fixed cost of energy.
2. Take advantage of ARRA funds available for Renewable Energy Investments (30% ITC).
3. ~4.5 year payback with excellent annual yield on investment.
4. Increases property value
5. Brand enhancement
6. Community Leadership
7. Ability to monitor and compare: Remote monitoring provides real-time data on the voltage, AC output and other parameters, giving owners the ability to really understand the dynamics of harvesting power from the sun.

(With Sunny Island Back-Up System option):
8. Eliminate down-time due to power outages
9. Stability of power supply
10. True independence from power outages.
11. Reduced/No generator run-time

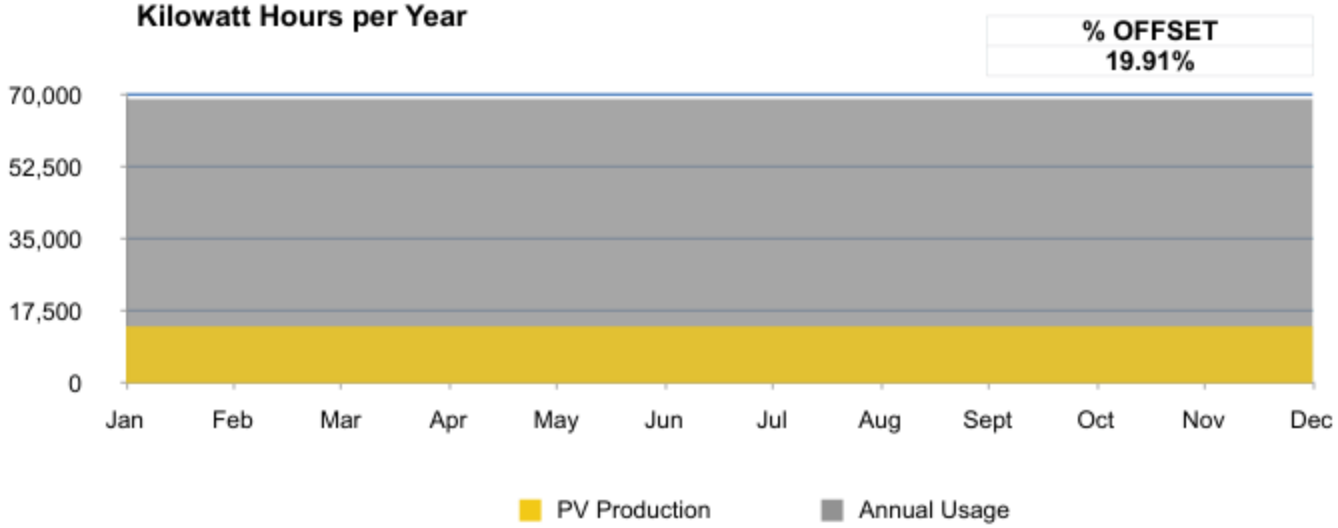
Proposal and Cost Analysis

System Cost

System Cost	$609,721	$5.05	Per watt
Other Discount	$0.00	$0.00	Per watt
Contract Cost	**$609,721**	**$5.05**	**Per watt**
*WISE Rebate	$0.00	$0.00	Per watt
*VIEO Rebate	$0.00	$0.00	Per watt
*USDA Grant	$0.00	$0.00	Per watt
**Federal Tax Credit (30%)	0	0	Per watt
Net System Cost	**$609,721**	$5.05	Per watt
Levelized Cost per kWh	**$0.1607**	Return on Investment	**17.35%**

* Rebates subject to availability ** Consult your CPA on exact Tax Benefits.

Kilowatt Hours per Year

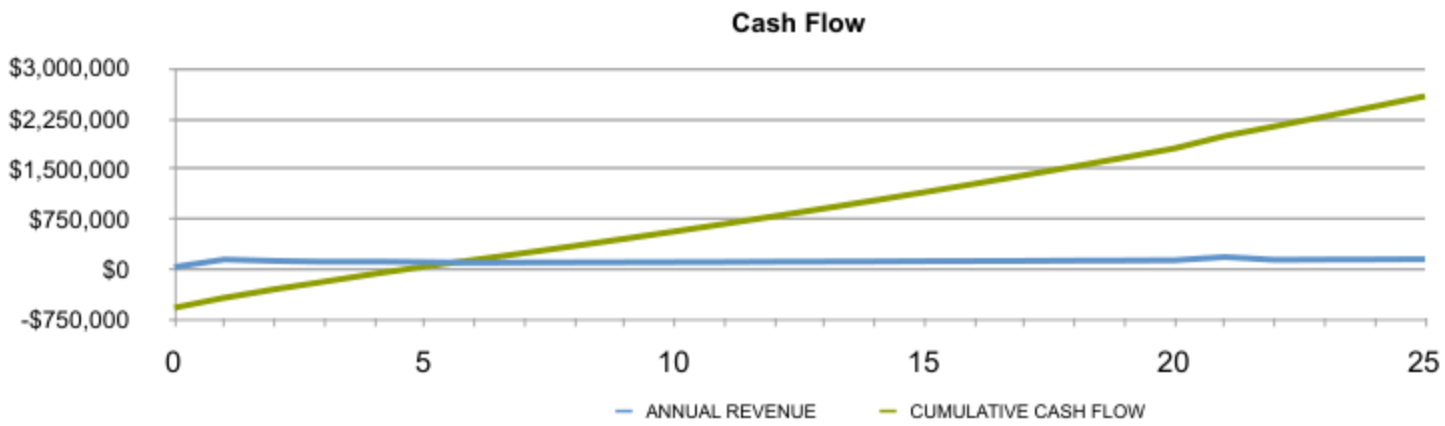


Assumptions

•REC Value / kWh	$0.00
•Annual Inflation	3.00%
•Current kWh Energy Costs	$0.56
•PV Degradation	0.70%
•System Life / years	25
•Inverter Life / years	20

Financial Analysis

		INFLATION					TAX BRACKET			IRR	
		3.00%					30%			17.35%	
YEAR	ANNUAL SOLAR PRODUCTION	UTILITY COST $/KWH	ANNUAL SOLAR VALUE	O&M	INVERTER REPLACEMENT	REBATES, CASH FROM OTHER SOURCES	ITC (30% OF GROSS COST)	BONUS DEP. 50%	MACRS 5	ANNUAL REVENUE	CUMULATIVE CASH FLOW
										-$609,721	-$609,721
0						$0	$0	$0	$36,583	$36,583	-$573,138
1	164929	$0.560	$92,360	-$2,536					$58,533	$148,358	-$424,780
2	163774	$0.577	$94,465	-$2,612					$35,120	$126,973	-$297,807
3	162628	$0.594	$96,618	-$2,690					$21,072	$115,000	-$182,807
4	161490	$0.612	$98,820	-$2,771					$21,072	$117,121	-$65,686
5	160359	$0.630	$101,072	-$2,854					$10,536	$108,754	$43,068
6	159237	$0.649	$103,375	-$2,940						$100,436	$143,504
7	158122	$0.669	$105,731	-$3,028						$102,704	$246,207
8	157015	$0.689	$108,141	-$3,119						$105,022	$351,230
9	155916	$0.709	$110,606	-$3,212						$107,393	$458,623
10	154825	$0.731	$113,126	-$3,309						$109,818	$568,441
11	153741	$0.753	$115,704	-$3,408						$112,297	$680,737
12	152665	$0.775	$118,341	-$3,510						$114,831	$795,569
13	151596	$0.798	$121,038	-$3,615						$117,423	$912,991
14	150535	$0.822	$123,797	-$3,724						$120,073	$1,033,064
15	149481	$0.847	$126,618	-$3,836						$122,783	$1,155,847
16	148435	$0.872	$129,504	-$3,951						$125,553	$1,281,400
17	147396	$0.899	$132,455	-$4,069						$128,386	$1,409,786
18	146364	$0.926	$135,474	-$4,191						$131,283	$1,541,068
19	145339	$0.953	$138,561	-$4,317						$134,244	$1,675,313
20	144322	$0.982	$141,719	-$4,446						$137,273	$1,812,585
21	143312	$1.011	$144,949	-$4,580	-$44,678					$95,691	$1,908,277
22	142309	$1.042	$148,252	-$4,717						$143,535	$2,051,811
23	141312	$1.073	$151,631	-$4,859						$146,772	$2,198,584
24	140323	$1.105	$155,086	-$5,005						$150,082	$2,348,665
25	139341	$1.138	$158,621	-$5,155						$153,466	$2,502,132
	3794767	0.8167	$3,066,065				$0	$0	$182,916	$3,111,853	
	KWH	AVERAGE									



Conceptual Design- Layout and Structural

System Layout and Comments on Design
This preliminary layout will provide clean, quiet energy for approximately 20% of the property. The proposed arrays have been designed to be hidden from view as much as possible, maintaining the natural beauty of the island. The solar system will be grid-tied. All hardware will be aluminum/stainless steel for corrosion resistance. Mounting hardware and solar modules will be engineered to appropriate building codes for wind loading. The solar structure will be designed to resist uplift values for the site.

A backup system may be designed to provide some/all of the energy needs throughout the year. This will require additional consulting to determine typical energy requirements during a power outage such as identifying critical loads and time of use. This system allows the owner all the benefits of using the utility while it is available and all the security of independence from WAPA during grid failure. The inverters will switch automatically within 20 milliseconds to off-grid mode, allowing for continual usage of your solar asset.

Shading Considerations
The PV modules located at the Mechanical Buildings are in full sun throughout the day.

Preliminary Design- Electrical Considerations

Site's Electric Data (assumptions)

Electrical Service: The electrical service is: 3-phase, 208V. There is one main meter for the entire property. Line loss from this underwater cable is significant and will need to be factored in to further analysis. It is assumed the existing electric service will support the interconnection of the proposed PV system.

Usage Data and Electric Rate Assumptions

- The estimated consumption of the whole complex is approximately 828,265 kWh/yr.

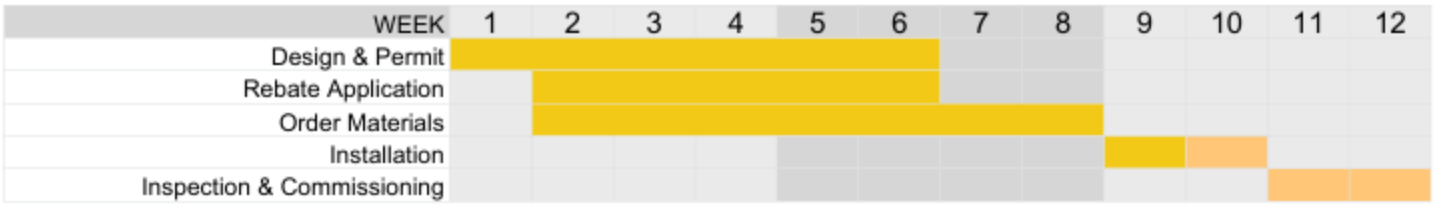
- The large volume of consumption can be offset by the use of solar PV and the excess generation can be fed back into the utility grid at any point in the year.

- A starting rate of $0.56 per kWh calculated from the usage and cost information typical to WAPA will be used for economic projections assuming a 3.00% inflation of the cost of energy averaged over 25 years.

Typical Project Schedule*

	Day		Duration
Design & Permit	0	45	45
Rebate Application	7	45	38
Order Materials	7	60	53
Installation	60	75	15
Inspection & Commissioning	75	90	15

* Specific schedule to be outlined in contract.



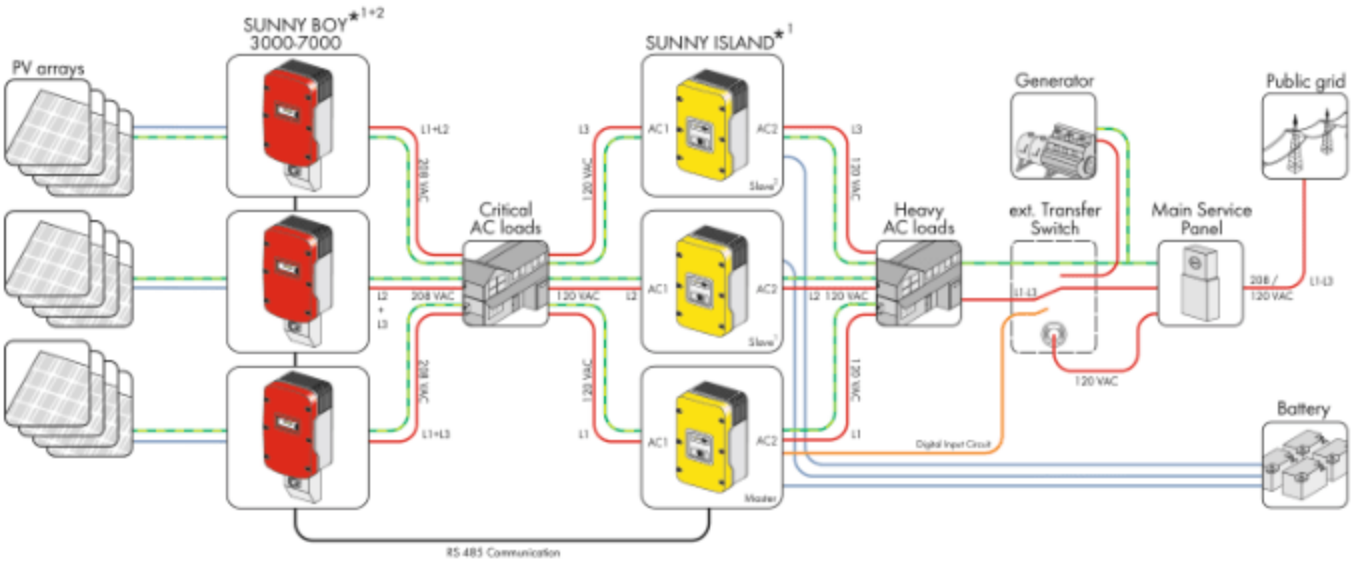
Other Assumptions:
This proposal assumes a building site that is ready to begin construction of the PV mounting system. Site work such as roof repairs, clearing of brush, debris removal or grading is not included.

Back Up Option
The Sunny Island inverter is designed for off-grid and grid-tied battery back up systems. During grid failure, a grid-tied system will shut down to eliminate the risk of back-feeding power into the grid, posing a safety hazard. Without a backup system, power produced by the PV array will not be available for use. The addition of a back up system will automatically switch the grid-tied system to “off-grid” mode and seamlessly provide uninterrupted power supply to the user. The Sunny Island back up inverter will harvest power from solar, wind, hydro, battery or fueled generator for use. Renewable energy takes first priority, battery takes second and when these are no longer sufficient, the generator is automatically started and regulated to maintain adequate power supply. The battery can be sized to supply enough power to run the desired loads through the night or for several days, thereby minimizing the need to run a generator. Alternatively, the Sunny Island back up system can be designed with a minimum battery of 48V, 100Ah to keep it functioning during a grid failure. Thus, the building would run on “solar by day” and “generator by night" with minimal storage.

It is estimated that electricity from a diesel generator will cost ~$0.40/kWh (cost of fuel, O&M, replacement, etc.) not to mention the environmental and noise pollution. The cost of solar is as little as $0.11/kWh and requires no fuel and very little maintenance. Manufacturer’s warranties are as high as 25 years. If grid failure is a concern, this may be a smart investment for low cost energy with a high impact on reducing carbon emissions.

The Sunny Island back up system will add approximately 20% to the cost of your PV system and will qualify for all tax incentives offered for renewable energy.

A video of the system can be viewed at:
http://www.sma-america.com/en_US/news-information/videos-animations/videos-animations-sunny-island.html



Monitoring
All Pure Logic Solar Systems include remote monitoring. This allows the user to know exactly what's going on with the system. It will provide real-time readings of DC voltage, AC power output and many other valuable parameters. This information will also be available on a web-based server that will allow users or technicians to troubleshoot from a distance, minimizing costly service calls. It will also send out an alert if anything is functioning abnormally. This notification can save hundreds of dollars in lost production which otherwise might not be noticed for a month or more. Remote monitoring gives the user peace of mind that the solar asset is performing. It will also be an educational tool for others to get real-time working knowledge of the power coming from the sun.

Weather Station (optional)
The Sunny Sensorbox is installed directly onto solar modules and measures irradiation and temperature. In combination with Sunny WebBox and Sunny Portal, it provides continuous meteorological and power production data. This makes it possible to detect shade, dirt, and gradually declining array performance, providing security against lost yield. An optional sensor to measure ambient temperature or wind speed provides even more data.

SUNNY WEBBOX
Remote monitoring and maintenance of large solar power plants

SUNNY SENSORBOX
The weather station for PV systems

How solar works

1. Solar Modules
Solar modules are usually mounted on your roof, but can also be installed on the grounds of your property or on an adjacent structure such as a garage. The panels are comprised of photovoltaic cells that convert sunlight into DC power.

2. Inverter
The power generated from the modules is sent to an inverter which converts the DC power into AC power; "standard" household electricity identical to what you receive from the utility grid.

3. Electric Panel
AC power from the inverter travels to your electric service panel or breaker box. The system is connected to your service panel through a circuit breaker and is then distributed to any electric loads in your home.

4. Utility Meter
Whenever your solar system provides more power than you are currently using in your home, the excess power will flow into the grid through your electric meter. This will cause your meter to run backwards earning you a credit with the utility company.

5. Utility Grid
You remain connected to the utility grid so power is always available when you need it, even at night and during the day when your demand exceeds your solar production.

Environmental Impact

A commercial solar system-100kW will offset over 3,250,000 lbs of carbon dioxide over 15 years, saving the equivalent of:

- **Driving a car 4,200,000 miles**
- **CO2 absorbed by 3000 trees**
- **1,000,000 gallons of water used in electricity**

Environmental Considerations

The conservation of fossil fuels, the reduction of pollutants, reduction of waste, and higher efficiency usage of electricity are the main environmental objectives to which Solar achieves each of these ends.

The Conservation of Fossil Fuels
This is a simple, yet important effect of using Solar Energy. As more and more individuals, corporations, and government use alternative energies such as solar, we conserve fossil fuels and other natural resources that are quickly diminishing. With a rapidly expanding world economy, and the strong growth in highly populated countries - the demand for energy is increasing at an alarming rate. This makes conserving our resources more important than ever.
In addition to the deterioration of land, air and water - the rapid depletion of natural resources "further compromises the ability of future generations to meet their own needs".

The Reduction of Pollutants
Electricity production in the US Virgin Islands is dominated by fossil fuels—98% coal, 2% petroleum and other like fuels. Overall energy production (heat, electricity, etc.) is also dominated by these fuels (51% coal, 16% natural gas and 3% petroleum). The resulting CO2 emissions come from coal (81%), gas (15%), and from petroleum (4%).
There are major environmental impacts attributed to electricity generation from these non-renewable fuels. Emissions of pollutants into the atmosphere (particulates, Sulphur Dioxide (SOx), Nitrogen Oxide (NOx), Carbon Dioxide (CO2), and others) all have a grave impact on public health, water and crops. These negative externalities also impact many delicate ecosystems such as forests and fisheries.

The Reduction of Waste
Electricity produced from Coal (the primary source of electricity) results in a great deal of waste during the process, such as:

- Mining: Dust from surface mining, Drainage Water
- Cleaning and Drying: Liquid and Solid Waste, Dust and Coal Fines (30 tons)
- Transportation: Spillage, Dust and Fines
- Storage: Liquid Drainage, Dust and Fines
- Power Plant: Liquid and Solid Waste (5000 tons of liquid; 360,000 tons of solid ash), Emissions (150,000 tons of mainly SOx, NOx, CO2, and particulates)
- Water, Land, Energy, and Heat are also wasted over the entire process of converting coal to electricity

Nearly every type of energy production from non-renewable sources produce wastes which have a negative impact on the environment. Even nuclear energy, while burning relatively clean, presents serious problems with the safe storage of radioactive waste and the possibility of widespread nuclear fallout from a reactor meltdown.

Higher Efficiency Usage of Electricity
The efficiency of fossil fuel electricity generation is stunningly low. Given that the amount of the fuel (coal, petroleum, natural gas, etc.) is growing scarce, this lack of efficiency is all the more important.
When you burn these fossil fuels to create electricity, we only convert about 35% of the energy produced into electricity, the other 65% is lost mostly in heat. It is now wonder why these fossil fuels are quickly disappearing.
While the efficiency is low for the individual solar cells themselves, the Solar Energy system is quite efficient.
That doesn't much matter however, since the fuel for Solar Energy (the Sun) is virtually limitless and available worldwide.

Source: National Renewable Energy Laboratory

Proposal Acceptance and Letter of Intent

Jeffrey Epstein, Mechanical Buil
Little Saint James Island
Little Saint James, USVI 00802
[redacted]

Proposal Summary		
System Size	120.8	kW DC
Contract Cost	$609,720.84	
Annual Production	164,929	kWh
Location	Roof and Ground	

Solar Installation Agreement
With the acceptance of this proposal, Pure Logic will prepare a formal Solar Installation Agreement in accordance with the equipment and pricing specifications laid out within this Proposal. When issued, the Solar Installation Agreement will replace this Proposal Acceptance and Letter of Intent. No physical labor or order of material is to be performed until a fully signed and executed Solar Installation Agreement is received from Buyer.

Payment Schedule
A Progress Payment Schedule will be included in a Project-Specific Rider.

Cancellation
Buyer has the right to withdraw his/her Proposal Acceptance and Letter of Intent should the terms of the Solar Installation Agreement be deemed unacceptable to Buyer for any reason, or if Buyer is unable to secure acceptable financing.

Authorized Signature(s)

x_____ x_____
Customer Signature ("Buyer") Date

_____
Print Name

x_____ x_____
Customer Signature ("Buyer") Date

_____
Print Name