SHAGBARK LUMBER AND **PETITION NO. 1215**

FARM SUPPLIES, INC. **FEBRUARY 20, 2016**

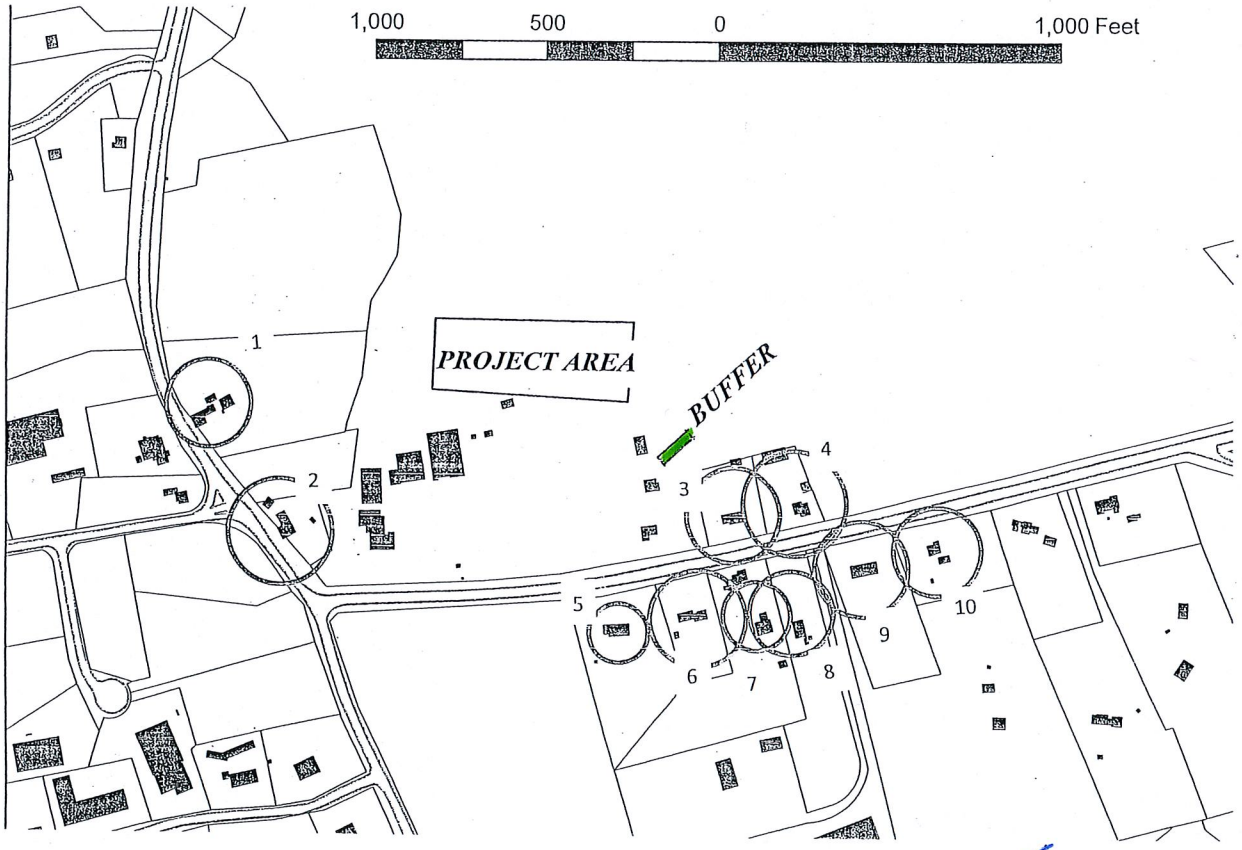
ANSWER TO THE SITING COUNCIL

INTERROGATORIES SET ONE

RESPONSE TO NOS. 19 and 25

19. Please find attached the formal response from the Connecticut Department of Energy and Environmental Protection dated January 24, 2016.

25. The map below illustrates project area ana approximate location of proposed buffering, just east of the southeast corner of the livestock barn. Exact landscaping will be determined in the field upon completion of installation.



Scott W. Jezek
Attorney for the Petitioner

Connecticut Department of

ENERGY &
ENVIRONMENTAL
PROTECTION

January 24, 2016

Mr. Dennis P. Quinn
CTHERPConsultant, LLC
40 Pine Street
Plantsville, CT 06479
ctherpconsultant@gmail.com

Project: Construction of a Photovoltaic System (Solar Field) at Shagbark Lumbar & Farm Supply, 21 MT. Parnassus Road in East Haddam, Connecticut
NDDB Determination No.: 201506257 (Update to NDDB Preliminary Assessment # 20506257)

Dear Dennis,

I have re-reviewed Natural Diversity Data Base maps and files regarding the area delineated on the map you provided for the proposed Construction of a Photovoltaic System (Solar Field) at Shagbark Lumbar & Farm Supply, 21 MT. Parnassus Road in East Haddam, Connecticut. As you know from our preliminary NDDB review we have known extant populations of State listed species in the vicinity of this project.

Thank you for including in your request for a NDDB final determination the Natural Resource Assessment that was submitted to address the listed species known from this area of East Haddam. This report included results from a plant survey, herpetological survey and the reports from two soil scientists. The report was well done and addressed each species identified in our NDDB preliminary assessment. I concur with your findings and conclusions that this project will not have any adverse impacts on federal or state-listed species in this area especially if best management practices and protection plans are followed for the eastern box turtle. In addition, I concur that by having a storm water management plan in place it will prevent any degradation to Succor Brook. This determination is good for one year. Please re-submit an NDDB Request for Review if the scope of work changes or if work has not begun on this project by January 24, 2017.

Natural Diversity Data Base information includes all information regarding critical biological resources available to us at the time of the request. This information is a compilation of data collected over the years by the Department of Energy and Environmental Protection's Natural History Survey and cooperating units of DEEP, private conservation groups and the scientific community. This information is not necessarily the result of comprehensive or site-specific field investigations. Consultations with the Data Base should not be substitutes for on-site surveys required for environmental assessments. Current research projects and new contributors continue to identify additional populations of species and locations of habitats of concern, as well as, enhance existing data. Such new information is incorporated into the Data Base as it becomes available.

Please contact me if you have further questions at (860) 424-3592, or dawn.mckay@ct.gov . Thank you for consulting the Natural Diversity Data Base. Also be advised that this is a preliminary review and not a final determination. A more detailed review may be conducted as part of any subsequent environmental permit applications submitted to DEEP for the proposed site.

Sincerely,

Dawn M. McKay

Dawn M. McKay
Environmental Analyst 3

SHAGBARK LUMBER AND

FARM SUPPLIES, INC.

PETITION NO. 1215

FEBRUARY 20, 2016

ANSWER TO THE SITING COUNCIL

INTERROGATORIES SET ONE

ORIGINAL

RESPONSE TO NOS. 3-10; 13-18; 22; and 24

Please see attached response from PurePoint Energy.

Scott W. Jezek
Attorney for the Petitioner

PUREPOINT ENERGY

2/19/2016

Petition 1215, Set One Interrogatory Responses

3. The proposed output is direct current (DC). The Sunny Tripower 24000TL-US inverters have an AC power output of 24 kilowatts (kW) each. The sum of the 50kW of inverters will equal 1.2MWs of AC output. It is an industry standard to have more DC capacity than AC capacity. The Facility will not exceed 1.6MW's of DC capacity. There may be minor modifications to the site plans to optimize the solar power plant. Below is a link to an engineering firm's blog that describes the Inverter Loading Ratio: http://www.blueoakenergy.com/blog/inverter-loading-ratio/

4. Attached at the end of the document

5. On Tab 8, "Twenty seven (50) SMA Sunny Tripower..." is a typographical error. 50 is intended.

6. 315 Watts Each. 315 Watts DC x 5,080 Solar Modules = 1,600,200 Watts DC or 1.6MWs DC.

7. Solar Panel Specification Sheet of the Jinko 315 Watt module is attached. Please note that the there may be minor modifications to the equipment based on equipment availability.

8. The Petitioner currently has a 128kW AC Solar system on its property. The existing system will be independent of the proposed 1.6MW solar facility.

9. The system is designed to maximize the annual production and environmental benefits within the physical footprint of the project. This system is not designed for peak load shaving.

10. Almost all of the power produced will go to the grid. An insignificant amount of the power will be consumed by the inverters and monitoring system.

13. There will be approximately 1.9 Acres of trees removed. Based on the U.S. Environmental Protection Agency (EPA) number of 1.22 metric tons of carbon dioxide sequestered by one acre of average U.S. forest in one year, the annual loss of carbon dioxide sequestration in metric tons per year is 2.318 (1.9 Acres x 1.22 Metric Tons).

a. The estimated annual production of the 1.6MW solar project is 1,900,000 kWh's. According to the EPA's Greenhouse Gas Equivalencies Calculator (http://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator) this is equivalent to offsetting 1,310 metric tons of carbon dioxide each year.
b. 2.318 metric tons per year x 25 Years (warrantied life of solar panels) = 57.95 metric tons.

PurePoint Energy LLC
28 Knight Street,
Norwalk, CT 06851

Phone: (203) 642-4105
Fax: (203) 548.9045
www.purepointenergy.com

c. 57.95 metric tons / 1310 metric tons (annual carbon dioxide offset) = .0442 Years or 16.15 Days. It will take approximately 16.15 Days of average production for the solar project to offset the amount of 25 years of carbon dioxide sequestration that 1.9 Acres of trees could achieve.

14. The estimated operational life of the facility is 30 years.

Decommissioning of a PV System

With useful lives of about 30 years, the U.S. Department of Energy projects that a growing waste stream from the photovoltaic industry will begin in 2020. Department of Energy forecasts that the major panel manufacturers will have recycling operations before 2020.

PV systems are generally safe for landfills—encased in glass or plastic and insoluble. Solar panels are recyclable at the end of their useful life cycles and will be turned into the next generation solar modules. The SMA Inverters have a recycling program currently in place: The outer housing goes to a metal recycling facility & PC Boards go to an electronics recycling company. The racking materials are made of steel and aluminum and will be recycled. The balance of system can either be recycled of or disposed of in a land fill.

Once the Facility has been decommissioned, the landowner will restore vegetative cover and hydrologic function. The process will involve (where needed) the replacement of topsoil and vegetation. The restoration will bring the Site back to a natural pre-construction condition that is compatible with the adjacent surroundings.

Any areas identified as remaining in bare earth will be hydro seeded with a seed mix to match existing onsite groundcover. Overall, the site restoration activities are anticipated to be very minimal.

15. The project is designed to use a common 2 inch chain link fence without barbed wire.

16. Please see attached site plan. The approximate locations of the new utility poles and electrical equipment are identified. The final location is to be coordinated with the utility.

17. The ground mounted solar panels will have a 2 foot clearance at the leading edge (southern side). The car port solar arrays will have a 12 foot clearance at the leading edge.

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www.purepointenergy.com

18. The petitioner has not received a response from SHPO as of 2/18/2016. A response is anticipated by March 18th.

22. The Facility does not have a final response from the Federal Aviation as of 2/18/2016. The estimated date of determination is 3/3/2016.

24. The noise emissions from the project will meet the Department of Energy and Environmental standards at the property boundaries. The SMA Tri-Power inverters are rated at 51 dB(A). They only produce noise during daylight hours.

The above responses were completed by:

Tom Wemyss
Vice President
PurePoint Energy, LLC
twemyss@purepointenergy.com

Design flexibility
- 1000 V DC or 600 V DC
- Two independent DC inputs
- 15° to 90° mounting angle range
- Detachable DC Connection Unit

System efficiency
- 98% CEC, 98.5% Peak
- 1000 V DC increases system efficiency
- OptiTrac advanced MPPT
- OptiTrac Global Peak MPPT

Enhanced safety
- Integrated DC AFCI
- Floating system with all-pole sensitive ground fault protection
- Reverse polarity indicator

Future-proof
- Cluster Controller, WebConnect/ Speedwire
- Bi-directional Ethernet communications
- Complete grid management feature set
- Ability to satisfy future utility requirements

SUNNY TRIPOWER
12000TL-US / 15000TL-US / 20000TL-US / 24000TL-US

The ultimate solution for decentralized PV plants

SMA's new Sunny Tripower TL-US is raising the level of performance for decentralized commercial PV plants. This three-phase transformerless inverter is UL listed for up to 1000 V DC maximum system voltage and has peak efficiency above 98 percent, while OptiTrac Global Peak minimizes the effects of shade for maximum energy production. The Sunny Tripower delivers a future-proof solution with full grid management, and communications and monitoring features. The Sunny Tripower is also equipped with all-pole ground fault protection and integrated AFCI for a safe, reliable solution. It offers unmatched flexibility with a wide input voltage range and two independent MPP trackers. Suitable for both 600 V DC and 1,000 V DC applications, the Sunny Tripower allows for flexible design and a lower levelized cost of energy.

ENGINEERED IN GERMANY
ASSEMBLED IN THE USA

THE TOTAL PACKAGE

The Sunny Tripower TL-US is engineered to optimize design, production, and reliability—reducing a project's levelized cost of energy and improving its financial returns.

Unmatched flexibility
Available in four power classes, the Sunny Tripower TL-US features a wide operating window, two MPP trackers, and 600 V DC or 1,000 V DC operation, making it ideal for any decentralized project. System engineering is made simple and repeatable, resulting in a shortened design cycle.

Easy to transport and install, the Sunny Tripower can be mounted in a variety of ways from vertical to nearly horizontal. Concrete pads usually required by central inverters are unnecessary, preserving site real estate.

Enhanced power production
Leading efficiency and SMA's proprietary OptiTrac Global Peak MPP tracking means owners benefit from superior power production and improved economics. When operated at 1,000 V DC, balance of system costs can also be significantly reduced.

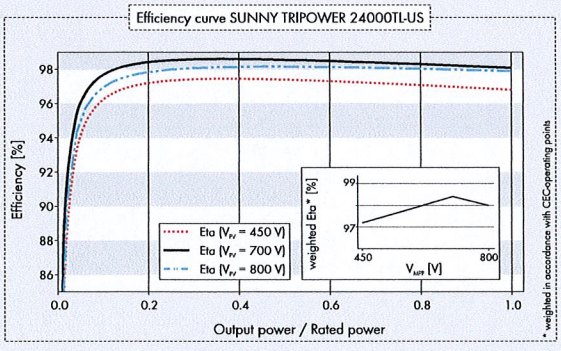
The Sunny Tripower TL-US also features advanced diagnostics, including a reverse polarity indicator via the Connection Unit 1000-US.

Future proof
The Sunny Tripower TL-US includes a number of technologies designed to meet tomorrow's requirements. Full grid management functionality is available, as are cutting edge communication options like SMA's Cluster Controller and Speedwire.

SMA Service can also simplify long-term planning with comprehensive packages covering inverters through plant-wide operations and maintenance (O&M). And, as a decentralized technology, inverter-level O&M is reduced from the beginning compared to centralized architecture.

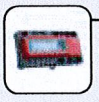
Optimized cost
The Sunny Tripower TL-US allows integrators to optimally use real estate, shorten design and installation time, and produce more power. Inverter-level O&M is reduced through string technology and long-term support is made simple through SMA's service organization, making the Sunny Tripower TL-US the ultimate solution for decentralized PV.

Technical data	Sunny Tripower 12000TL-US	Sunny Tripower 15000TL-US	Sunny Tripower 20000TL-US	Sunny Tripower 24000TL-US
Input (DC)				
Max. recommended PV power (@ module STC)	15000 W	18750 W	25000 W	30000 W
Max. DC voltage*	1000 V	1000 V	1000 V	1000 V
Rated MPPT voltage range	300 V...800 V	300 V...800 V	380 V...800 V	450 V...800 V
MPPT operating voltage range	150 V...1000 V	150 V...1000 V	150 V...1000 V	150 V...1000 V
Min. DC voltage / start voltage	150 V / 188 V	150 V / 188 V	150 V / 188 V	150 V / 188 V
Number of MPP tracker inputs	2	2	2	2
Max. input current / per MPP tracker input	66 A / 33 A	66 A / 33 A	66 A / 33 A	66 A / 33 A
Output (AC)				
AC nominal power	12000 W	15000 W	20000 W	24000 W
Max. AC apparent power	12000 VA	15000 VA	20000 VA	24000 VA
Output phases / line connections	3 / 3-N-PE			
Nominal AC voltage	480 / 277 V WYE			
AC voltage range	244 V...305 V			
Rated AC grid frequency	60 Hz			
AC grid frequency / range	50 Hz, 60 Hz / 44 Hz...65 Hz			
Max. output current	14.4 A	18 A	24 A	29 A
Power factor at rated power / adjustable displacement	1 / 0.8 leading...0.8 lagging			
Harmonics	< 3 %			
Efficiency				
Max. efficiency	98.2 %	98.2 %	98.5 %	98.5 %
CEC efficiency	97.5%	97.5%	97.5%	98.0%
Protection devices				
DC reverse polarity protection	●	●	●	●
Ground fault monitoring / Grid monitoring	●	●	●	●
All-pole sensitive residual current monitoring unit	●	●	●	●
DC AFCI compliant to UL 1699B	●	●	●	●
AC short circuit protection	●	●	●	●
Protection class / overvoltage category	I / IV	I / IV	I / IV	I / IV
General data				
Dimensions (W / H / D) in mm (in)	665 / 690 / 265 (26.1 / 27.1 / 10.4)			
Packing dimensions (W / H / D) in mm (in)	780 / 790 / 380 (30.7 / 31.1 / 15.0)			
Weight	55 kg (121 lbs)			
Packing weight	61 kg (134.5 lbs)			
Operating temperature range	-25°C...+60°C			
Noise emission (typical)	51 dB(A)			
Internal consumption at night	1 W			
Topology	Transformerless			
Cooling concept	OptiCool			
Electronics protection rating	NEMA 3R			
Features				
Display / LED indicators (Status / Fault / Communication)	–/●	–/●	–/●	–/●
Interfaces: Speedwire / RS485	●/o	●/o	●/o	●/o
Mounting Angle Range	15°...90°	15°...90°	15°...90°	15°...90°
Warranty: 10 / 15 / 20 years	●/o/o	●/o/o	●/o/o	●/o/o
Certifications and approvals (pending)	UL 1741, UL 1998, UL 1699B, IEEE 1547, FCC Part 15 (Class A & B), CAN/CSA C22.2 107.1-1			
NOTE: US inverters ship with gray lids				
*Suitable for 600 V DC max. systems				
Type designation	STP 12000TL-US-10	STP 15000TL-US-10	STP 20000TL-US-10	STP 24000TL-US-10



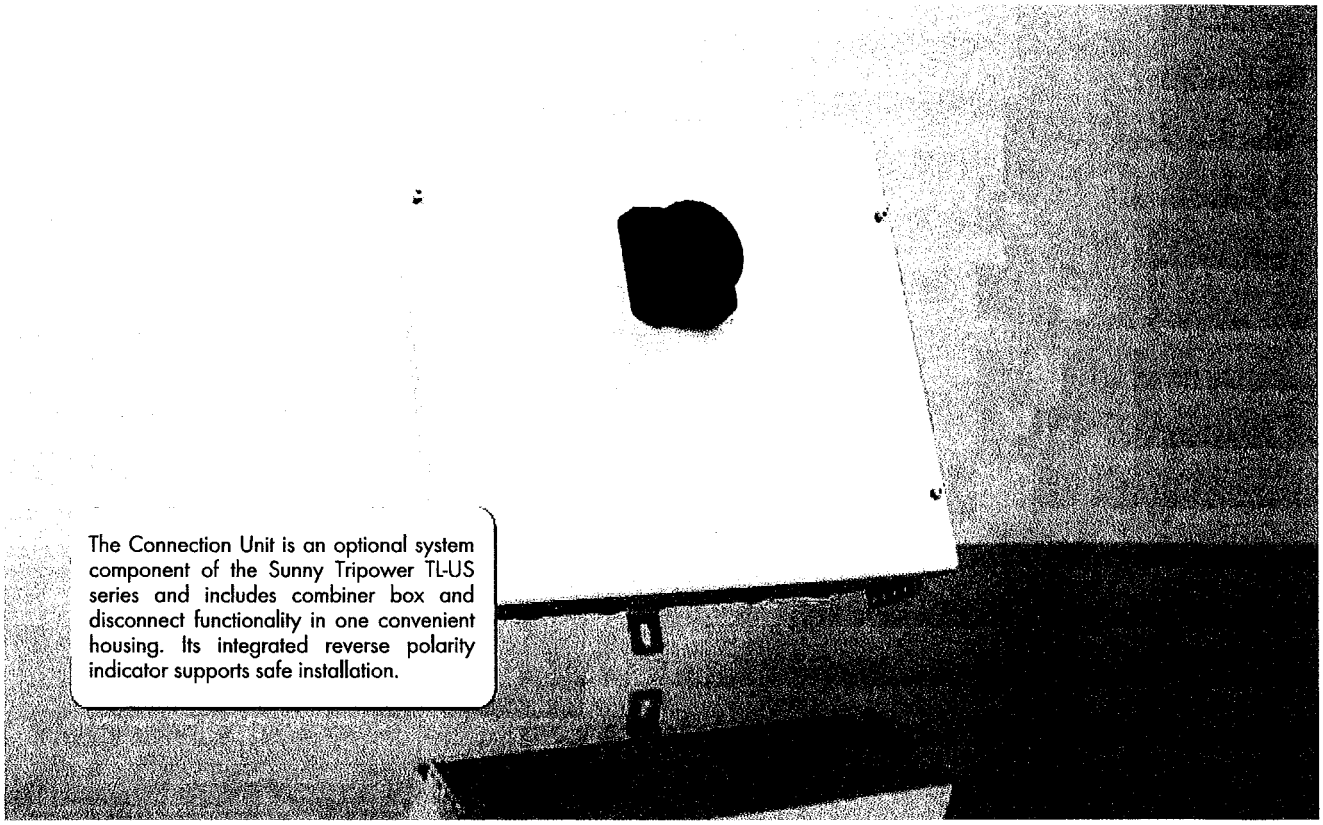
Accessories

RS485 interface
DM-485CB-US-10



SMA Cluster Controller
CLCON-10

● Standard features o Optional features – Not available
Data at nominal conditions



The Connection Unit is an optional system component of the Sunny Tripower TL-US series and includes combiner box and disconnect functionality in one convenient housing. Its integrated reverse polarity indicator supports safe installation.

Technical data	Connection Unit 1000 V
Input (DC)	
Max. DC voltage	1000 V
Number of input source circuits (strings)	8 (4 + 4)
Input conductor size	#12 to #6 AWG
Max. fuse size	20 A
Output (DC)	
Output circuits	2
Output conductor size	#12 to #2 AWG
Max. rated continuous current / per output circuit	66 A / 33 A
Protection devices	
Touchsafe fuse holders	●
Reverse polarity indicator	●
Load-break rated output disconnect	●
General data	
Dimensions (W / H / D) in mm (in)	500 / 380 / 140 (19.7 / 15.0 / 5.5)
Packing dimensions (W / H / D) in mm (in)	520 / 420 / 200 (20.5 / 16.5 / 7.9)
Weight	5.5 kg (12 lbs)
Packing weight	6.0 kg (13 lbs)
Protection rating	NEMA 3R
Features	
Certificates and permits (pending)	
● Standard features ○ Optional features – Not available	
Type designation	CU 1000-US-10

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www.SMA-America.com

SMA America, LLC

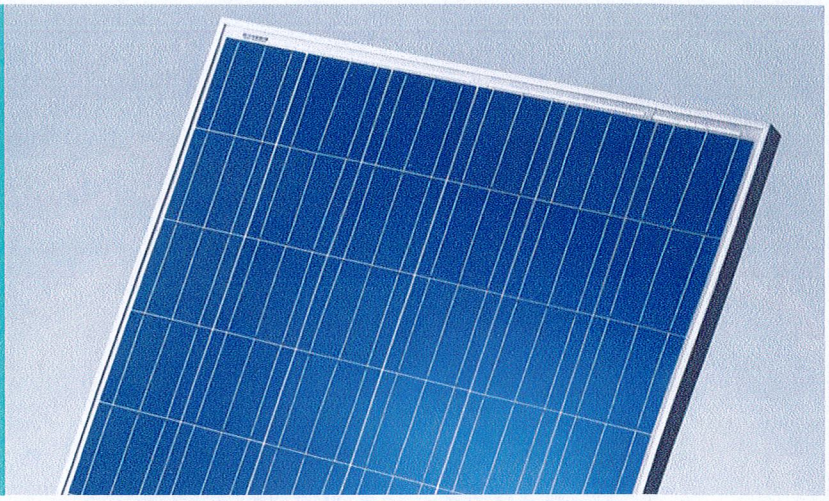
www.jinkosolar.com

Solar
JinKO
Building Your Trust in Solar

JKM315P-72
295-315 Watt
POLY CRYSTALLINE MODULE

Positive power tolerance of 0/+3%

ISO9001:2008、ISO14001:2004、OHSAS18001 certified factory.
IEC61215、IEC61730 certified products.



PV CYCLE

KEY FEATURES

High Efficiency:
High module conversion efficiency (up to 16.23%), through innovative manufacturing technology.

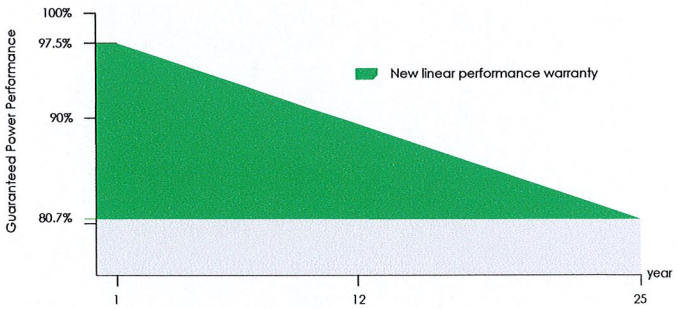
Low-light Performance:
Advanced glass and solar cell surface texturing allow for excellent performance in low-light environments.

Severe Weather Resilience:
Certified to withstand: wind load (2400 Pascal) and snow load (5400 Pascal).

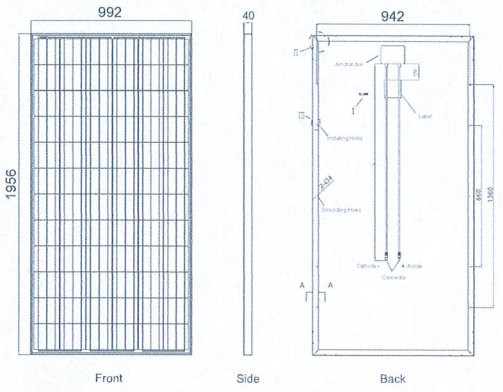
Durability against extreme environmental conditions:
High salt mist and ammonia resistance certified by TUV NORD.

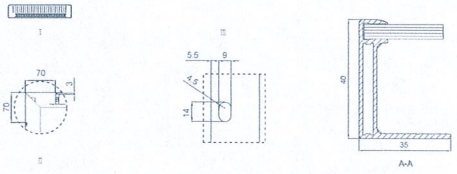
LINEAR PERFORMANCE WARRANTY

10 Year Product Warranty • 25 Year Linear Power Warranty

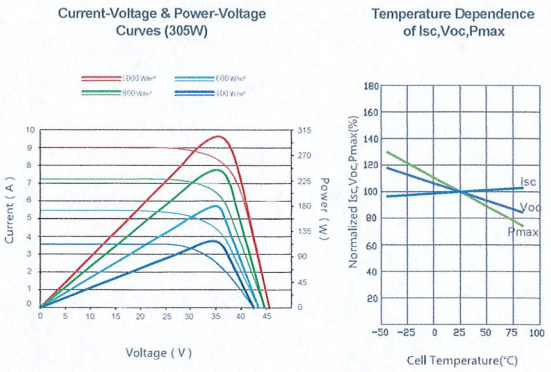


Engineering Drawings





Electrical Performance & Temperature Dependence



Mechanical Characteristics

Cell Type	Poly-crystalline 156×156mm (6 inch)
No.of cells	72 (6×12)
Dimensions	1956×992×40mm (77.01×39.05×1.57 inch)
Weight	26.5kg (58.4 lbs)
Front Glass	4.0 mm, High Transmission, Low Iron, Tempered Glass
Frame	Anodized Aluminium Alloy
Junction Box	IP67 Rated
Output Cables	TÜV 1×4.0mm², Length:900mm

Packaging Configurations

(Two boxes =One pallet)

25 pcs/box, 50 pcs/pallet, 600 pcs/40'HQ Container

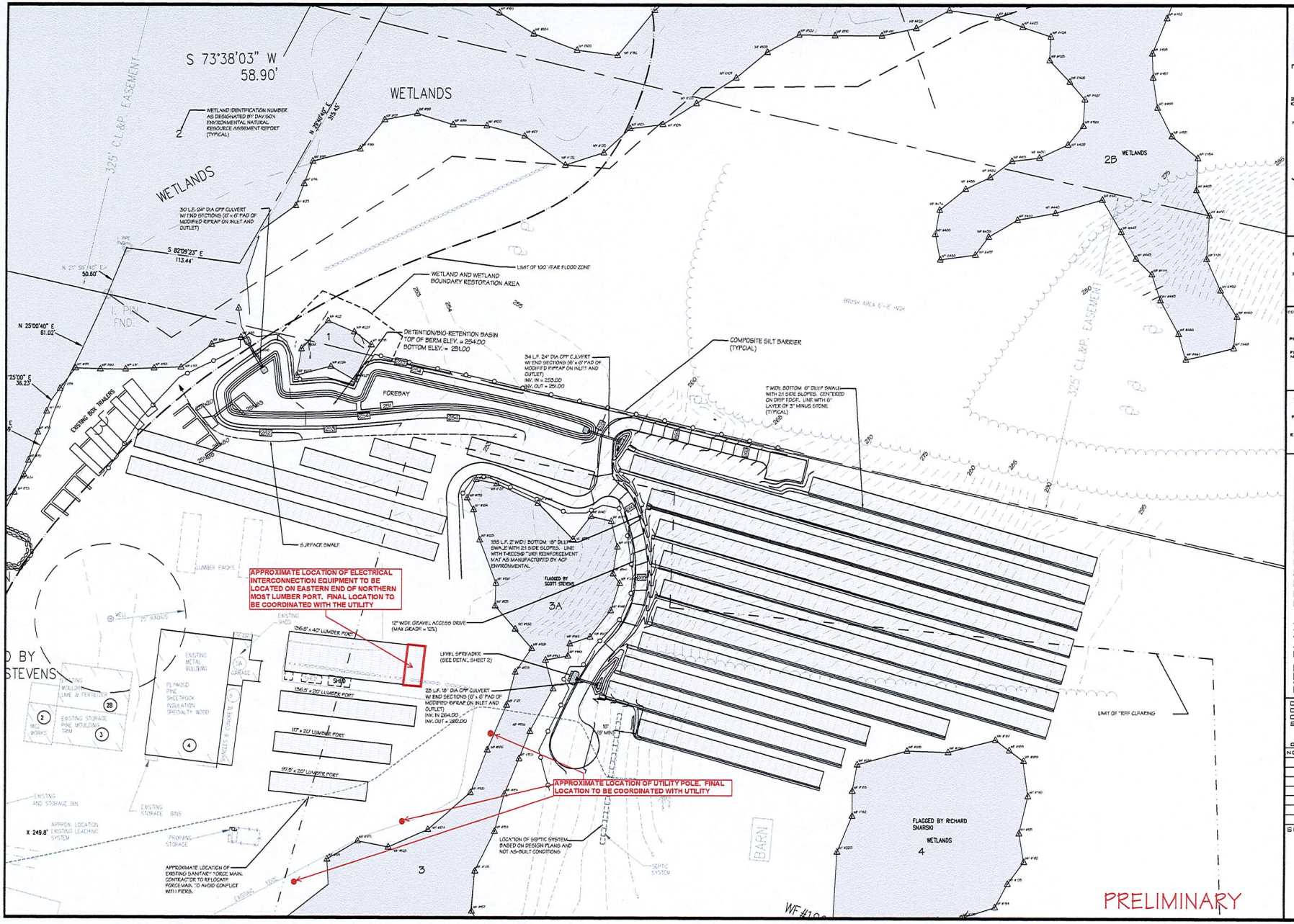
SPECIFICATIONS

Module Type	JKM295P		JKM300P		JKM305P		JKM310P		JKM315P	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power (Pmax)	295Wp	218Wp	300Wp	221Wp	305Wp	225Wp	310Wp	230Wp	315Wp	233Wp
Maximum Power Voltage (Vmp)	36.2V	33.5V	36.6V	33.7V	36.8V	34.0V	37.0V	34.4V	37.2V	34.7V
Maximum Power Current (Imp)	8.15A	6.50A	8.20A	6.56A	8.30A	6.62A	8.38A	6.68A	8.48A	6.71A
Open-circuit Voltage (Voc)	45.1V	41.9V	45.3V	42.3V	45.6V	42.4V	45.9V	42.7V	46.2V	42.8V
Short-circuit Current (Isc)	8.76A	7.09A	8.84A	7.16A	8.91A	7.21A	8.96A	7.26A	9.01A	7.28A
Module Efficiency STC (%)	15.20%		15.46%		15.72%		15.98%		16.23%	
Operating Temperature(℃)	-40℃~+85℃									
Maximum system voltage	1000VDC (ETL)									
Maximum series fuse rating	15A									
Power tolerance	0~+3%									
Temperature coefficients of Pmax	-0.41%/℃									
Temperature coefficients of Voc	-0.31%/℃									
Temperature coefficients of Isc	0.06%/℃									
Nominal operating cell temperature (NOCT)	45±2℃									

STC: Irradiance 1000W/m² Cell Temperature 25°C AM=1.5

NOCT: Irradiance 800W/m² Ambient Temperature 20°C Wind Speed 1m/s

* Power measurement tolerance: ± 3%



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06419
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ROGER D. NEMERSUT
PROFESSIONAL ENGINEER
LIC. NO. 10008

JASON A. NEMERSUT
PROFESSIONAL ENGINEER
LIC. NO. 26089

SITE PLAN - PROPOSED SOLAR GENERATION FACILITY

SHABBARK LUMBER AND FARM SUPPLIES
31 MAPLE AVENUE
EAST HADDAM CONNECTICUT

MAP: 27 LOT: 91

DATE: 12/23/15
DRAWN BY: J.A.N.
CHECKED BY: R.D.N.
SCALE: 1" = 40'

CAD FILE: 423-15-06

NO.	DATE	REVISIONS

SHEET

1 OF 2

Did you ever wonder what reducing carbon dioxide (CO_2) emissions by 1 million metric tons means in everyday terms? The greenhouse gas equivalencies calculator can help you understand just that, translating abstract measurements into concrete terms you can understand, such as the annual emissions from cars, households, or power plants.

This calculator may be useful in communicating your greenhouse gas reduction strategy, reduction targets, or other initiatives aimed at reducing greenhouse gas emissions.

Enter Your Data

There are two options for entering reduction data into this calculator.

Print Your Results

If You Have Energy Data | If You Have Emissions Data

Please note that these estimates are approximate and should not be used for emission inventory or formal carbon footprinting exercises. Read more about the caveats and explanations on the Calculations and References page

1900000

kilowatt-hours of electricity

Calculate

Equivalency Results

The sum of the greenhouse gas emissions you entered above is of Carbon Dioxide Equivalent. This is equivalent to:

1,310

Metric Tons

Greenhouse Gas Equivalencies Calculator

About This Calculator

Last Updated: April 2014

- Latest updates and revision history
- Calculations and References

Other Calculators

There are a number of other web-based calculators that can estimate greenhouse gas emission reductions for

- Individuals and households
- Waste, and
- Transportation.

For basic information and details on greenhouse gas emissions, visit the Emissions section of EPA's climate change site.

Greenhouse gas emissions from

276

Passenger vehicles driven for one year

-or-

3,119,397

Miles driven by an average passenger vehicle

-or-

470

Tons of waste sent to the landfill

-or-

67.2

Garbage trucks of waste recycled instead of landfilled

CO_2 emissions from

PurePoint Energy
Solar Performance That Shines

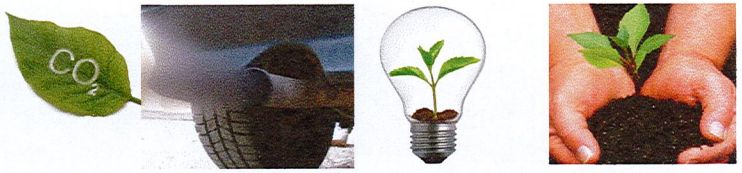
Studley Residence
Town of Clinton, NY

System Basics, Savings & Financial Returns

	6.5 kW	8.8 kW	11.4 kW
kW Solar Electric System	6.5 kW	8.8 kW	11.4 kW
Number of Solar Panels:	20	27	35
Approximate ft^2 Needed:	400	540	700
Inverter Type:	String	String	String
Solar Panel Manufacturer:	SunPower	SolarWorld	SunPower
Manufacturing Country:	USA	USA	USA
Solar Panel Frame Color:	Black	Black	Black
25 yr. Electricty Savings from Solar	$ 39,167	$ 52,876	$ 68,543
25 yr. Savings Including Cost of Solar	$ 23,108	$ 30,806	$ 39,093
Todays Cost of Electricity:	$ 0.14	$ 0.14	$ 0.14
25 Yr. Average Cost of Electricity:	$ 0.22	$ 0.22	$ 0.22
Cost of Solar Energy:	$ 0.08	$ 0.08	$ 0.08
Estimated First Year Savings	$ 1,077	$ 1,454	$ 1,884
Estimated Power Production:	7,691	10,383	13,459
Est. Increased Home Value:	$ 21,535	$ 29,072	$ 37,686
Years Solar Panels are Warrantied:	25 Years	25 Years	25 Years
After Tax Rate of Return:	7.3%	7.2%	6.9%
30 Year Treasurey Yield (2013):	3.21%		
Average Stock Market Return:	9-10%		

Notes: Assumes 5% shading
Nissan Leaf driving 15,000 miles will use about 5,100 kWh's

Environmental Benefits:



System Size (Panels):	20	27	35
Lifetime Carbon Offset	259,573	350,423	454,252
Miles Offset by an Average	288,414	389,359	504,725
Equivalent Trees Planted	649	876	1,136
13 Watt Bulb (Years)	1,688	2,279	2,955

Sales Representative:
Gary Buchanan
gbuchanan@purepointenergy.com

www.purepointenergy.com
Office: 203.642.4105
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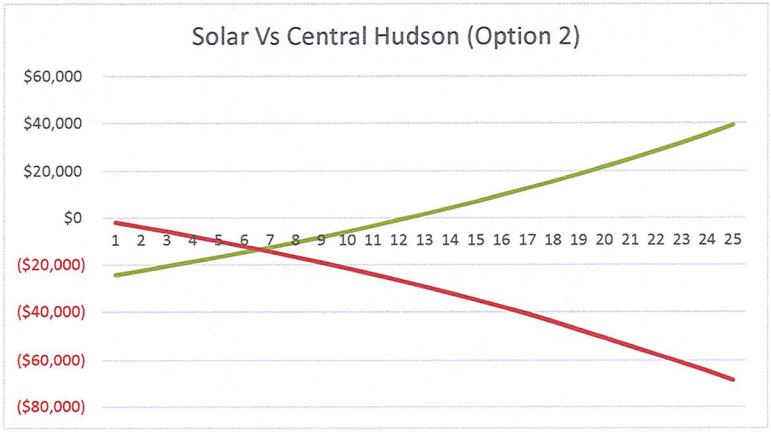
PurePoint Energy
Solar Performance That Shines

Studley Residence
Town of Clinton, NY



Financial Assumptions:	
Cost of Electricity:	0.14
Energy Escalation Rate	3.0%
Ability to Enjoy Federal Tax Credit:	Yes
Design Factor:	95%
Maintenance Cost (kWh):	$0.01

Project Investment Options:

		6.5 kW	8.8 kW	11.4 kW
	Total Investment:	$ 29,953	$ 38,494	$ 48,985
	Rebate:	$ 2,616	$ 3,532	$ 4,578
	Out of Pocket Cost:	$ 27,337	$ 34,963	$ 44,407
	State Tax Credit:	$ 5,000	$ 5,000	$ 5,000
	Federal Tax Credit:	$ 8,201	$ 10,489	$ 13,322
STEP 1:	Net Investment	$ 14,136	$ 19,474	$ 26,085
	Choose Your System:			

Estimated Payment Schedules:

1/19/2015	Good Faith Deposit:	$ 1,500	$ 1,500	$ 1,500
4/4/2015	Equipment Payment:	$ 13,669	$ 17,481	$ 22,203
4/18/2015	Installation Payment:	$ 9,435	$ 12,485	$ 16,263
5/18/2015	Completion Payment:	$ 2,734	$ 3,496	$ 4,441
	Total Investment:	$ 27,337	$ 34,963	$ 44,407
STEP 2:	Confirm Schedule:			

STEP 3: Reserve your Rebate. With the $1,500 good faith deposit PurePoint Energy complete your design and secure your NYSERDA Funding

STEP 4: We will submit materials needed to secure the state rebate and utility interconnection approval. We will need the following items to secure these:

- Copy of current electricity bill (both pg. 1 & 2).
- A copy of the energy audit report once it is completed.
- A copy of your home insurance. (Will need coverage, and coverage amount).

STEP 5: Best Contact Information throughout the Project:

Name:

Phone:

Email:

Sales Representative:
Gary Buchanan
gbuchanan@purepointenergy.com

www.purepointenergy.com
Office: 203.642.4105
Fax: 203.642.4105

Quotation & Contract for a Photovoltaic System

Contractor:
PurePoint Energy LLC
28 Knight Street
Norwalk, CT
203-642-4105

Client:
Pat Studley
168 East Meadowbrook Lane
Staatsburgh, NY

Project Description & Major Components:

A Turnkey _____ kW photovoltaic system installation at the client's site address stated above. The system will be roof mounted.

Major Components:

1) Solar Panels: ( ) SunPower E327

2) Inverters: ( ) SMA Inverter

Standard Components:

1) Racking & Mounting Components Per Standard Building Code
2) AC & DC Disconnects Per National Electric Code & Utility
3) Wiring, Conduit, and Over current Protection Per National Electric Code
4) Roofing sealants and flashings as needed
5) Weather Proof Junction Box
6) Easy Read Meter to be installed adjacent to AC Disconnect
7) All equipment is UL listed as shown on the data sheets

Standard Labor:

1) Design system and secure basic building or electrical permits
2) Install Specified System in Good Workmanlike Manner
3) Complete and Submit Utility Interconnection Documents
4) Coordinate Building, Electrical and Utility Inspections
5) Complete all paperwork required for rebate for the New York Research and Development Authority (NYSERDA)

_____ _____ _____ _____
Initials Date Initials Date

Estimate Energy Generation:
4 Hours / Day x 365 x _____ (TSRF) x ____ kW = _____ kWh / Year

System Pricing Details:

- ✓ Solar Panels _____
- ✓ Inverter _____
- ✓ Balance of System _____
- ✓ Labor and Overhead _____
- ✓ Total: _____

This is a turn key solution. Permitting, interconnection fees are included. Your utility may charge you to change your meter to a net meter. Estimated cost ranges from $25 - $200.

Estimated Financial Incentives:
*Please consult with your tax accountant or tax attorney to confirm specific value of tax credits, grants and rebates.

- ✓ **Estimated NYSERDA Rebate** _____
- ✓ NY State Tax Credit (25% up to $5,000) _____
- ✓ Federal Tax Credit _____
- ✓ **System Cost After Incentives** _____

Tentative Payment Schedule:

Action	Cash Out	Tentative Timeline
Good Faith Deposit –		
Progress Payment 1		Invoiced 2 Weeks Before Installation
Progress Payment 2		Invoiced During Installation
Point Achieves Utility Interconnection		Invoiced on Completion
Total		

_____ _____ _____ _____
Initials Date Initials Date

What is not Included:

- Structural upgrades needed for any building and/or roof in order to adequately support the system.
- Electrical service upgrades to existing system needed to properly interconnect.

PV System Warranty:

This system included a full warranty to the purchaser of the PV generation system installed under the Agreement for a period of five years after installation including all components of the PV System against breakdown or degradation in electrical output of more than ten percent from the original rated electrical output. The warranty covers the full costs, including labor and repair or replacement of defective components or systems. If the PV System includes a battery pack, the battery system is covered by a full warranty including labor and repair or replacement of the battery to the purchaser for two years after installation

Time for Completion:

PurePoint Energy agrees to complete the work by _____ or have made considerable progress.

This quotation is valid for 14 days from_____. The Quoted Schedule is valid for 3 days.

_____ _____

Tom Wemyss, PurePoint Energy Date

_____ _____

Sign Above Date

_____

Print Name

_____ _____ _____ _____

Initials Date Initials Date

TERMS AND CONDITIONS

CONTRACTORS RIGHTS AND RESPONSIBILITES

1. Contractor may subcontract all or a portion of the work.
2. Contractor shall have the right to stop work if payments are not made when due.
3. Contractor agrees to furnish the materials for the project and work in a professional manner. All materials furnished under agreement shall be construction grade and meet industry standard. When materials have been specified, Contractor may select substitutes when specified materials are unavailable. All substitutes shall be of a consistent quality and character to the original. The owner will be notified of any substitutes to the major components outlined in the above agreement.
4. This Agreement is the entire Agreement between you and us and supersedes any prior oral understandings, written agreements, Proposals, or other communications between you and us. No informed or implied work is included. If, upon inspection by any local official having jurisdiction, any work not specifically spelled out and included in the proposal scope of work that must be done to meet any specific building code or satisfy any official's request, will be considered additional work, and will be paid for by you at our normal rates. You retain the right to make any changes or alterations to the Scope, but if, in our opinion, such changes substantially affect our scope of work or costs, we shall have the right to make appropriate changes to either the scope or the price of this proposal, or to both. This agreement cannot be transferred or assigned by either party without the prior written consent of the other party.
5. Contractor shall have the right to impose a 1 and ½% interest charge per month on late invoices.
6. In the event that the owner cancels the project after the 3rd business day, the Owner will be responsible to pay for expenses incurred by the Contractor. Examples of these expenses include engineering, interconnection /permitting fees, travel costs and associated labor and equipment.
7. Any existing mechanical or electrical component, either directly or indirectly related, that fails to start or operate properly, or any concealed conditions that result in extra or additional work, as determined solely by us, will be repaired, restored, or replaced for an additional charge on a time and material basis. Warranty calls due to failures caused by improper environmental conditions affecting equipment or electrical power or fuel fluctuations, lack of proper maintenance, site-related problems, operator error, acts of GOD, abuse or misuse of equipment, or alterations, modifications, or repairs to equipment not performed or provided by us shall be excluded.
8. Our work and services under this agreement exclude anything connected or associated with asbestos or other hazardous materials of any type. We shall not be required to perform any identification, abatement, cleanup control or removal of asbestos or hazardous material. You represents that, to the best of your knowledge, there is no asbestos or hazardous material in the work site or scope of work. Should we become aware of or suspect the presence of asbestos or hazardous material, we shall have the right to stop work in the affected area immediately and notify you. You will be responsible for doing whatever is necessary to identify and correct the condition in accordance with all applicable statues and regulations and you agree to assume 100% responsibility for any claims or other costs arising out of or relating to the presence of asbestos or hazardous materials in your building. Disposal of hazardous waste are excluded. Hazardous wastes remain the property and responsibility of you even when removed from equipment or replaced by us as provided by the terms of this Agreement.

CONTRACTORS LIMITED WARRANTY

The liability of the contractor for defective installation is hereby limited to the replacement or correction including the cost of material and/or installation, and no other claims, or demands will be made upon or allowed against contractor. Warranty applies only to original owner and is not transferable. This warranty covers the labor and repair of defective components for a period of five years after installation.

_____ _____ _____ _____

Initials Date Initials Date