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August 16, 2016

Melanie Bachman, Esq.
Acting Executive Director
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

Re: PETITION NO. 1247 — C-TEC Solar, LLC petition for a declaratory ruling that no Certificate of Environmental Compatibility and Public Need is required for the proposed construction, maintenance, and operation of a 3.75 MW solar photovoltaic electric generating facility located at 1 Ballard Road, Thompson, Connecticut

RESPONSES TO INTERROGATORIES (SET ONE)

1. C-TEC Solar LLC's (C-TEC or Petitioner) proposed photovoltaic facility would have a power output of up to 3.75 megawatts (MW). Is this output based on direct current (DC) or alternating current (AC)? If this is based on DC MW, provide the number of MW based on AC.

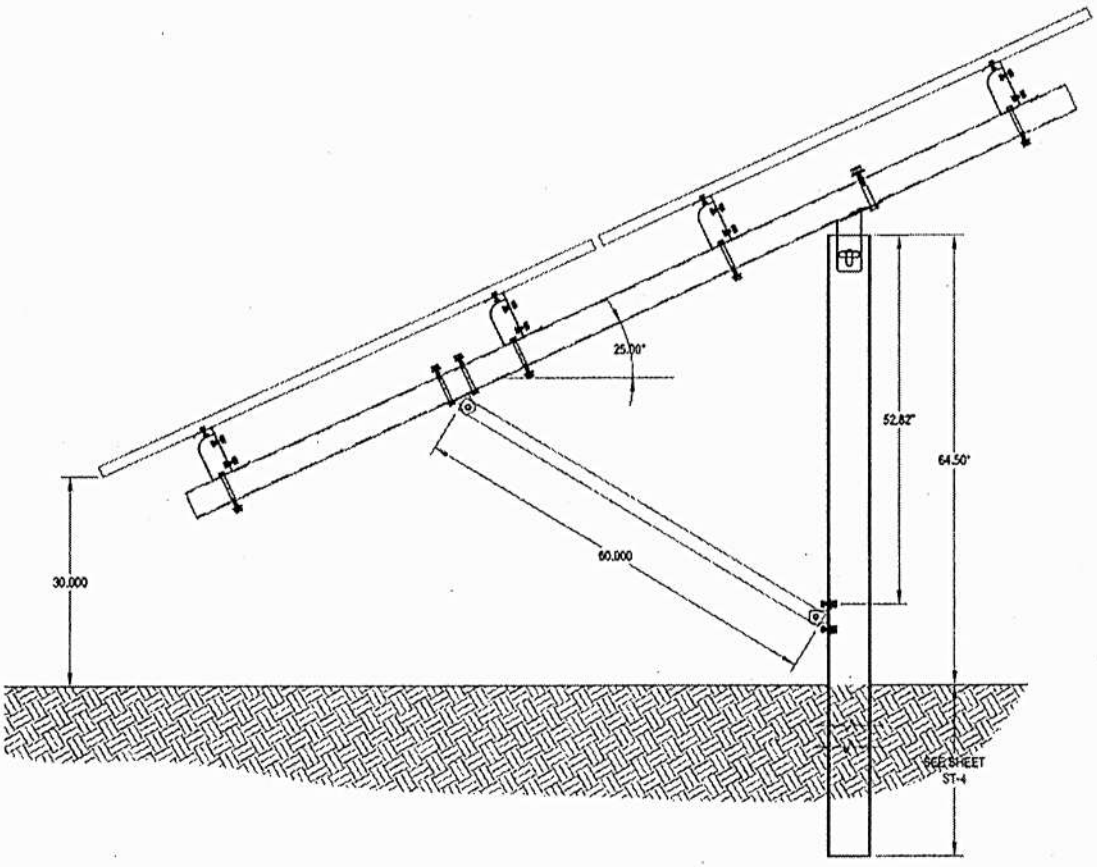
Response: This system is proposed to be +/- 3.75 MW DC and +/- 2.70 MW AC.

2. Page 3 of the Petition notes that, "The storage shed will consume a portion of the Project's electrical output while the remaining electrical output will be delivered to the electrical grid and produce virtual net metering credits which will be sold to other municipalities in the state." Roughly what portion of the output would the storage shed consume in kilowatts?

Response: Approximately 12-50 kWhrs/year.

3. Page 28 of the Petition states that, "The solar panels and appurtenances will not exceed a height of six (6) feet above ground." Page 31 of the Environmental Assessment dated July 2016 states that, "The solar panels and appurtenances will not exceed a height of approximately eight (+/-8) feet above ground." Provide the correct maximum height to the top of the solar panels. Would the bottom of the solar panels be approximately two feet above grade per Sheet DN-1?

Response:



- See above. This places the solar panels at approximately 7'10" maximum height.

4. Provide the specifications sheets for a) proposed inverters and b) solar photovoltaic panels.

Response: See Next Pages

CPS

Datasheet

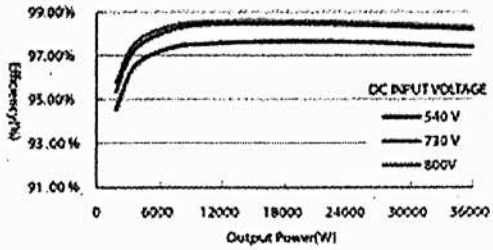
36kW, 1000Vdc String Inverters for North America

The medium power series of grid-tied, transformerless inverters help to accelerate the use of 1000Vdc and three phase string architecture for commercial and small ground mount utility applications. A NRTL approved, cost effective alternative to central inverters enabling BoS cost savings, high harvest performance and modular design building blocks. These models provide up to 98.5% conversion efficiency and wide operating window of 240-950Vdc and dual MPPT's for maximum energy harvest.

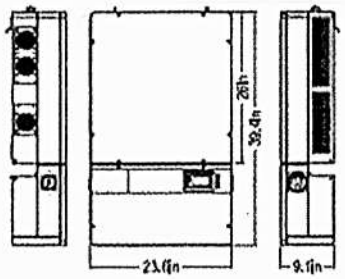
CPS SCA36KTL-DO/US-480

Efficiency Curve

CPS SCA36KTL-DO/US-480



Dimensions



High Efficiency

- Maximum efficiency of 98.5%, CEC efficiency of 98%
- 3-level technology and enhanced control mechanism to achieve high efficiency over wide load range
- 2 MPPTs to achieve higher system efficiency
- Transformerless design

High Reliability

- Standard warranty: 10 years, extension up to 20 years
- Advanced thermal design, with variable speed fans
- Ground-fault detection and interruption circuit
- AFCI Integrated (per UL1699B, Factory Enabled Option)

Broad Adaptability

- NEMA 4X (IP65), outdoor application
- Utility interactive controls : Active power derating, reactive power control
- Separate wiring box design
- Integrated DC, AC disconnects
- Wide MPPT range for flexible string sizing
- 1000V Max. DC input voltage for flexible configuration
- 15 - 90 degree installation angle
- Compatible with Copper and Aluminium wire on AC side

Chint Power Systems America
7060 Koll Center Parkway, Suite 318 Pleasanton, CA 94566
Tel 855-584-7168 Mail AmericaSales@chintpower.com Web www.chintpowersystems.com

CPS

Technical Data

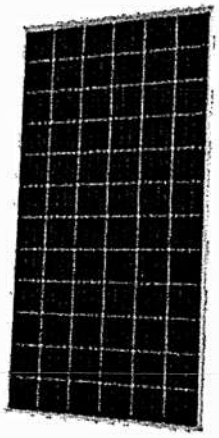
Model Name	CPS SCA36KTL-DO/US-480
DC Input	
Max. PV Power	54kw(27kw/MPPT)
Nominal DC Input Power	37kW
Max. DC Input Voltage	1000Vdc
Operating DC Input Voltage Range	240-950Vdc
Start-up DC Input Voltage / Power	330V/300W
Number of MPP Trackers	2
MPPT Voltage Range	540-800Vdc
Operating Current (Imp)	70A(35A per MPPT)
MaxInput Current (Isc)	125A
Number of DC Inputs	10 inputs, 5 per MPPT
DC Disconnection Type	Load rated DC switch
AC Output	
Rated AC Output Power	36kW
Max. AC Output Power	36kW
Rated Output Voltage	480Vac
Output Voltage Range*	422-528Vac
Grid Connection Type	3Φ/PE/N (Neutral Optional)
Nominal AC Output Current @480Vac	43.5A
Rated Output Frequency	60Hz
Output Frequency Range*	57-63Hz
Power Factor	>0.99 (±0.8 adjustable)
Current THD	<3%
AC Disconnection Type	Load rated AC switch
System	
Topology	Transformerless
Max. Efficiency	98.5%
CEC Efficiency	98.0%
Stand-by / Night Consumption	<20W/<2W
Environment	
Protection Degree	NEMA 4X
Cooling	Variable speed cooling fans
Operating Temperature Range	-22°F to +140°F/- 30°C to +60°C (derating from +113°F/+45°C)
Storage Temperature Range	-40°F to +158°F/-40°C to +70°C
Operating Humidity	0-95%, non-condensing
Operating Altitude	13123.4ft/4000m (derating from 6561.7ft/2000m)
Display and Communication	
Display	LCD+LED
Communication	Standard:RS485(Modbus);Optional:TCP/CP Card
Mechanical	
Dimensions (WxHxD)	600x1000x230mm
Weight	inverter:121lbs/55kg; wirebox:24lbs/11kg
Installation Angle	15 - 90 degrees from horizontal
Safety	
Safety and EMC Standard	UL1741:2010, UL1699B, CSA-C22.2 NO.107.1-01, IEEE1547; FCC PART15
Grid Standard	IEEE 1547-2003 (R2008), IEEE 1547.1-2005(R2011),HECO/Rule14

*The "Output Voltage Range" and "Output Frequency Range" may differ according to specific grid standard.

Q.PLUS L-G4.2 330-340

Q.ANTUM SOLAR MODULE

The Q.ANTUM solar module Q.PLUS L-G4.2 with power classes up to 340 Wp is the strongest module of its type on the market globally. Powered by 72 Q CELLS solar cells Q.PLUS L-G4.2 was specially designed for large solar power plants to reduce BOS costs. Only Q CELLS offers German engineering quality with our unique triple Yield Security.



LOW ELECTRICITY GENERATION COSTS
Higher yield per surface area and lower BOS costs thanks to higher power classes and an efficiency rate of up to 17.4 %.

INNOVATIVE ALL-WEATHER TECHNOLOGY
Optimal yields, whatever the weather with excellent low-light and temperature behavior.

ENDURING HIGH PERFORMANCE
Long-term yield security with Anti-PID Technology[1], Hot-Spot-Protect and Traceable Quality Tra.Q™.

LIGHT-WEIGHT QUALITY FRAME
High-tech aluminum alloy frame, certified for high snow (5400 Pa) and wind loads (2400 Pa).

A RELIABLE INVESTMENT
Inclusive 12-year product warranty and 25-year linear performance guarantee[2].

[1] APT test conditions: Cells at -1000V against grounded, with conductive metal foil covered module surface, 25 °C, 168h
[2] See data sheet on rear for further information.

THE IDEAL SOLUTION FOR:

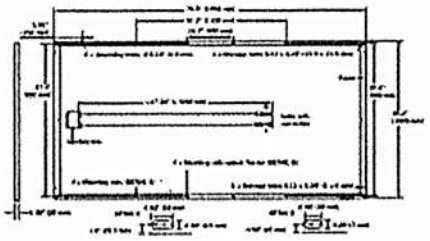
Ground-mounted solar power plants

Engineered in Germany

Q CELLS

MECHANICAL SPECIFICATION

Format	78.5 in × 39.4 in × 1.38 in (including frame) (1994 mm × 1000 mm × 35 mm)
Weight	52.9 lb (24 kg)
Front Cover	0.13 in (3.2 mm) thermally pre-stressed glass with anti-reflection technology
Back Cover	Composite film
Frame	Anodized aluminum
Cell	6 × 12 Q.ANTUM solar cells
Junction box	3.35-4.13 in × 2.36-3.15 in × 0.59-0.67 in (85-105 mm × 60-80 mm × 15-17 mm), Protection class ≥ IP67, with bypass diodes
Cable	4 mm² Solar cable; (+) ≥ 47.24 in (1200 mm), (-) ≥ 47.24 in (1200 mm)
Connector	Amphenol H4 UTX, IP68

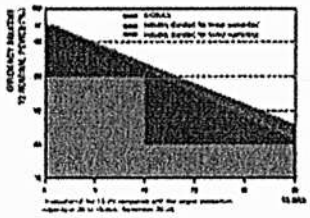


ELECTRICAL CHARACTERISTICS

POWER CLASS			330	335	340
MINIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC[1] (POWER TOLERANCE +5 W / -0 W)					
Minimum: Power at MPP[2]	P_{MPP}	[W]	330	335	340
Minimum: Short Circuit Current[2]	I_{SC}	[A]	9.49	9.54	9.59
Minimum: Open Circuit Voltage[2]	V_{OC}	[V]	46.55	46.81	47.07
Minimum: Current at MPP[2]	I_{MPP}	[A]	8.91	8.97	9.03
Minimum: Voltage at MPP[2]	V_{MPP}	[V]	37.02	37.33	37.63
Minimum: Efficiency[2]	η	[%]	≥ 16.5	≥ 16.8	≥ 17.1
MINIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NOCT[3]					
Minimum: Power at MPP[2]	P_{MPP}	[W]	244.7	248.4	252.1
Minimum: Short Circuit Current[2]	I_{SC}	[A]	7.65	7.69	7.73
Minimum: Open Circuit Voltage[2]	V_{OC}	[V]	43.44	43.68	43.92
Minimum: Current at MPP[2]	I_{MPP}	[A]	6.99	7.04	7.09
Minimum: Voltage at MPP[2]	V_{MPP}	[V]	35.01	35.29	35.56

[1] 1000 W/m², 25°C, spectrum AM 1.5G [2] Measurement tolerances STC ± 3%; NOC ± 5% [3] 800 W/m², NOCT, spectrum AM 1.5G [4] Typical values, actual values may differ

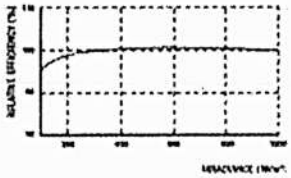
Q CELLS PERFORMANCE WARRANTY



At least 97 % of nominal power during first year. Thereafter max. 0.6 % degradation per year.
At least 92 % of nominal power after 10 years.
At least 83 % of nominal power after 25 years.

All data within measurement tolerances. Full warranties in accordance with the warranty terms of the Q CELLS sales organisation of your respective country.

PERFORMANCE AT LOW IRRADIANCE



Typical module performance under low irradiance conditions in comparison to STC conditions (25 °C, 1000 W/m²).

TEMPERATURE COEFFICIENTS

Temperature Coefficient of I_{SC}	α	[%/K]	+0.04	Temperature Coefficient of V_{OC}	β	[%/K]	-0.29
Temperature Coefficient of P_{MPP}	γ	[%/K]	-0.40	Normal Operating Cell Temperature	NOCT	[°F]	113 ± 5.4 (45 ± 3 °C)

PROPERTIES FOR SYSTEM DESIGN

Maximum System Voltage V_{SYS}	[V]	1500 (IEC) / 1500 (UL)	Safety Class	II
Maximum Series Fuse Rating	[A DC]	15	Fire Rating	C / TYPE 1
Max Load (UL)[4]	[lbs/ft²]	75 (3600 Pa)	Permitted module temperature on continuous duty[4]	-40 °F up to +185 °F (-40 °C up to +85 °C)
Load Rating (UL)[5]	[lbs/ft²]	33 (1600 Pa)	[4] see installation manual	

QUALIFICATIONS AND CERTIFICATES

IEC 61215 (Ed. 2), IEC 61730 (Ed. 1), Application class A
This data sheet complies with DIN EN 50380.

PACKAGING INFORMATION

Number of Modules per Pallet	29
Number of Pallets per 40' Container	22
Pallet Dimensions (L × W × H)	81.3 × 45.3 × 46.9 in (2065 × 1150 × 1190 mm)
Pallet Weight	1671 lbs (758 kg)

NOTE: Installation instructions must be followed. See the installation and operating manual or contact our technical service department for further information on approved installation and use of this product.

Hanwha Q CELLS USA Corp.
300 Spectrum Center Drive, Suite 1250, Irvine, CA 92618, USA | TEL +1 949 748 59 96 | WEB www.q-cells.com

Engineered in Germany

Q CELLS

5. In general, in the case of fixed solar panels, does orienting your solar panels to the south provide a sort of balance (in terms of sun exposure) between the sun rising in the east and setting in the west and ultimately result in optimizing (or attempting to maximize) your total annual energy production (in kilowatt-hours) and your capacity factor? Is it correct to say that the objective of the project, as proposed, is to maximize annual energy production in kilowatt-hours for economic and environmental benefits (e.g. reducing carbon emissions by causing traditional generation including fossil-fueled plants to "ramp down" as renewable power is added to the grid) as opposed to a solar plant designed for peak load shaving?

Response: Yes. The project is designed for maximum energy production, environmental and economic benefits and also provides a significant amount of peak generation. Almost 70% of the output is peak power.

6. The solar panels are proposed to be facing the south and at a 25 degree angle from the horizontal. Did the Petitioner choose this orientation and angle to maximize its capacity factor and total annual electrical energy production?

Response: Yes.

7. Is a System Impact Study required by the electrical distribution company for the interconnection process? Does the Petitioner have an Interconnection Agreement with Eversource?

Response: A system impact study was required and has been completed. We have an Interconnection Agreement, however, we have not executed it as we are waiting for a decision from PURA regarding an open docket related to this project.

8. What is the efficiency of the photovoltaic module technology of the proposed project?

Response: At least 97 % of nominal power during first year. Thereafter max. 0.6 % degradation per year. At least 92 % of nominal power after 10 years. At least 83 % of nominal power after 25 years.

9. Would the solar plant have a protection system to shut the plant down in the event of a fault in the feeder(s) that connect the solar plant to the local electrical distribution system?

Response: The inverters include a shut down if there is a loss of grid connectivity. The EDC will perform a grid outage simulation during the witness test to prove that the inverters work correctly.

10. Provide a decommissioning plan to summarize the plans to remove equipment and restore the site after the operational life has been reached and/or the project is removed from service.

Response: See Next Pages

Decommissioning Plan

1 Ballard Road. Thompson, CT

1. Introduction

This Decommissioning Plan establishes the approach to conduct decommissioning activities for the permanent closure of the solar panels and appurtenant equipment (Project or Facility) at the end of the Facility's useful life or the permanent cessation of the Facility's' operation, whichever comes first. This Plan also describes the approach for removal and/or abandonment of facilities and equipment associated with the Facility's and describes anticipated land-restoration activities.

C-TEC Solar, LLC ("Petitioner") submits this plan in conjunction with its Petition for a 3.752MW Solar Farm before the Connecticut Siting Council ("CSC") regarding the Barrette Farms Solar Farm. All recyclable materials will be transported to the appropriate nearby recycling facilities. Any non-recyclable materials will be properly disposed of at a nearby landfill. 95% or greater of the Facility's components will be recyclable.

2. Decommissioning Activities

- Decommissioning Preparation

The first step in the decommissioning process will be to prepare the site for decommissioning. Site decommissioning and equipment removal can take up to two months to complete for a project of this size. Therefore, access roads, fencing, and electrical power will temporarily remain in place for use by the decommissioning and site restoration workers until no longer needed. Demolition debris will be placed in temporary on-site storage areas pending final transportation and disposal/recycling according to the procedures listed below.

- PV Equipment Removal and Recycling

During decommissioning, all Facility components that will not be used by the site owner will be removed from the site. Equipment removal will include all pad-mounted cabinets, wiring, solar modules, solar module racking, inverters, batteries, and panel boards. Steel posts that supported the module racking will be removed and any resulting holes will be backfilled with locally imported soil to match existing site soil conditions. The concrete transformer and interconnection equipment pad will be broken up and removed.

The demolition debris and removed equipment may be cut or dismantled into pieces that can be safely lifted or carried with the on-site equipment being used. The majority of copper, steel and aluminum will be processed for transportation and delivery to a licensed off-site recycling center.

The solar modules will be transported to and recycled at the nearest facility that will accept them. Minimal non-recyclable materials are anticipated; these will be properly disposed of at the nearest qualified disposal facility.

- Internal Power Collection System

The DC and AC power collection system will be dismantled and removed. All conduit and cabling that is removed will be recycled.

- Access Roads

The onsite access driveway will remain in place to accomplish decommissioning at the end of the Facility's life. At the time of decommissioning, if the landowner determines that this road will be beneficial for the future use of the site, the access road may remain after decommissioning. The future use of the site is undetermined at this time. Roads that will not be used will be restored to pre-construction conditions by removal of the aggregate base material, fill of the compacted base section with locally imported soil to match existing onsite soils, and hydroseeding with a seed mix to match existing onsite groundcover.

- Security Fence

The 6-foot high chain link perimeter security fence will remain in place during decommissioning activities for site safety and security purposes. At the time of decommissioning, if the landowner determines that this fence will be beneficial for the future use of the site, the fence may remain after decommissioning. The future use of the site is undetermined at this time. If the fence will not be used, it will be removed and transported to the nearest recycling facility. Holes left behind by the fence support posts will be backfilled with locally imported soil to match existing onsite soils, and hydroseeded with a seed mix to match existing onsite groundcover.

- Interconnection Line

The overhead interconnection cabling that connects the Project to the Eversource distribution network will remain in place during decommissioning activities to provide electric service onsite during decommissioning. At the time of decommissioning, if the landowner determines that this electric service line will be beneficial for the future use of the site, the line may remain after decommissioning. If the line is not used, it will be removed per Eversource Utilities guidelines and transported offsite to the nearest recycling facility.

- Site Reclamation

After the Project is completely decommissioned, and all Project equipment has been removed from the Site, additional activities will be performed to return the property back to its preconstruction conditions, excepting ordinary wear and tear.

- Restoration Process

The decommissioning process will remove Project-related structures and infrastructure as described in the previous sections. Following decommissioning, site reclamation activities will occur. Reclamation will restore landform features, vegetative cover, and hydrologic function after the closure of the facility. The process will involve (where needed) the replacement of topsoil and vegetation, as well as modification of site topography where necessary to bring the Site back to substantially pre-construction conditions compatible with the adjacent surroundings.

Any excavated areas remain after removal of equipment pads or access road base material, will be backfilled and compacted with locally imported soil to match existing onsite soils, and hydroseeded with a seed mix to match existing onsite groundcover. Any other areas of lower than average ground surface level will receive similar treatment.

If any soils are compacted at levels that would affect successful re-vegetation, they will be decompacted. The method of de-compaction will depend on how compacted the soil has become over the life of the Project. Following de-compaction, re-contouring of the site will be conducted, if necessary, to return the Site to approximately match the pre-construction surface conditions and the surrounding area conditions. Original site drainage characteristics will be restored if they have not been maintained. It is unlikely that a significant amount of earthwork will be required, because the Project construction plan calls for minimal disturbance of the Site during Project construction. Grading activities will be limited to areas as shown on the design plans that require re-contouring. Efforts will be made to disturb as little of the natural drainages and existing natural vegetation that remain post-decommissioning as possible.

Any remaining bare earth areas will be hydroseeded with a seed mix to match existing onsite groundcover. Site restoration activities are anticipated to be limited, because the pre-construction conditions of the site are not planned to be significantly altered during Project construction. Also, any other activities that become necessary, will be performed to return the Site to a preconstruction condition.

- Monitoring Activities

The Site will be monitored by C-TEC Solar after site restoration activities are complete to confirm that any earthwork and re-vegetation were performed correctly. The Site will be periodically inspected (at least quarterly) to check for any eroded earthwork or failed vegetation.

Any deficiencies will be promptly corrected. This monitoring will continue for a period of one year, or until the Site is re-developed for another future purpose, whichever comes first.

At the time the Project ceases to operate, Petitioner will perform decommissioning which will include off-site removal of the solar panels, support structures, underground electrical lines, inverters, transformers, concrete pads, and fencing/fence posts. Decommissioning will also include restoring existing site conditions by returning soil immediately to areas that have been disturbed to remove underground wires.

3. Cost of Decommissioning

The Estimated Cost of Decommissioning the Project is $212,500, as reflected in the attached document. The Estimated Cost of Decommissioning shall be adjusted annually to account for inflation, based upon the current Consumer Price Index ("CPI") as maintained by the Bureau of Labor Statistics (the Revised Estimated Cost of Decommissioning). Petitioner shall file annual reports with the Board and the Department of Public Service on the status of the Decommissioning Fund after each annual adjustment.

Decommissioning Cost Estimate
Barrette Farms Solar Farm, 3.752MW PV

Removal
Remove modules $56,000
Package & ship modules $32,000
Disassemble rack $40,000
Pull posts $42,000
Package & ship rack & posts $13,500
Remove & ship inverter sheds $11,500
Remove electrical equipment & wiring $10,500
Dispose of material with salvage value $UNK
Dispose of material with no salvage value $3,500
Site restoration – harrow & seed $3,500
Total Decommission Cost $212,500 w/out recyclable material value

11. Is a battery or other type of energy storage system proposed? If so, describe the function of lithium-ion battery or other type of storage system. What prediction methods and reports has the Petitioner used to assess total capacity and annual energy production in kilowatt-hours for this project, and how are the proposed batteries or other type of energy storage incorporated into those predictions? Are the batteries or other type of energy storage used to "even out" the energy production, charging during the day and discharging at night, or are they charged during off-peak hours to grant more output during peak hours? Are they simply used to function as a power supply backup?

Response: At this time there is no battery storage system proposed or anticipated.

12. . Provide the carbon debt payback period. Specifically, as an estimate, you may utilize the U.S. Environmental Protection Agency (EPA) number of 1.06 metric tons of carbon dioxide sequestered by one acre of average U.S. forest in one year. That number can be multiplied by the number of acres of trees to be cleared to estimate the annual loss of carbon dioxide sequestration in metric tons per year for the project. Then the total projected annual electrical production in kilowatt-hours for the solar facility can be multiplied by the EPA estimate of 7.03 x 10-a metric tons of carbon dioxide displaced per kilowatt-hour in order to provide the annual carbon dioxide emissions avoided by the operation of solar plant. Based on this or a different analysis, compute the number of months or years it would take to "break even" with carbon dioxide or when the carbon dioxide emissions reductions would equal the sequestration loss. The carbon emissions associated with manufacturing the solar panels and equipment could be included in the analysis if desired, or it may be neglected/omitted as a "sunk cost" for simplicity. (Data source: http://www.epa.gov/energy/ghg-equivalencies -calculator-calculations-and-references).

Response:

Givens:

Emissions factor = 7.03 x 10-4/kWh (C emissions produced per Kwh) = .000703

Metric tons of CO2 sequestered annually by 1 acre of average US forest = 1.06

2 acres of forest are to be cleared. . . 2.12 metric tons of C sequestration/ yr @ Barrette

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Assumptions

Barrette annual kWh production = 4,875,000 kWh (ratio of ~ 1/1300 W/kWh/yr based upon latitude and regional climate using 6 decades of daily weather conditions averaged over that period)

Metric tons of CO2 emissions avoided by Barrette array/yr = 3427

= 9.4 Metric tons/day (average)

13. Would the proposed project adversely impact groundwater presumed suitable for human consumption as identified by the Department of Energy and Environmental Protection (DEEP) as "GA"? Would the proposed project adversely -impact any nearby DEEP Class A surface water bodies?

Response: The project site is located within a groundwater area identified as "GA" by CTDEEP and has two surface water bodies, Little Mountain Brook located on the northeast portion of the Site and Quinnatisset located on the southern portion, that are classified as Class A by CTDEEP. The panels will be installed on a shallow, post-driven rack system and the facility will be unstaffed with no potable water uses or sanitary discharges. Prior to and throughout the duration of construction, sedimentation and erosion controls will be installed and maintained in accordance with the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control. Once operative, the stormwater generated by the proposed development will be properly handled and treated in accordance with the 2004 Connecticut Stormwater Quality Manual. Therefore, the proposed Project development will not result in an adverse impact to water resources.

14. Does the proposed host property contain any Connecticut Prime and Important Farmland Soils? If so, what acreage of Prime and Important Farmland Soils would the solar panels and associated equipment be located on? You may review the response to interrogatory 56 (Set 3) in (approved) Petition No. 1222 as a sample.

Response: The proposed host property does contain areas of mapped Statewide Important Farmland Soils. Note this mapping is based on soil surveys published between 1962 and 1981 with subsequent field mapping from 1985 through 2001. Approximately 7.4 aces of the proposed 10.75-acre solar facility would be located within those mapped areas of Statewide Important Farmland Soils but because of past mining operations (circa 2004) most, if not all, of the original soil material has been removed and/or replaced.

15. Has the State of Connecticut Department of Agriculture purchased any development rights for the proposed site as part of the State Program for the Preservation of Agricultural Land?

Response: No

16. Would any glare from the panels be expected to adversely impact aviation and/or nearby properties?

Response: There is no expected impact to nearby properties nor will it impact aviation. The "glare" put off by these modules is no greater than a typical body of water or window on a building.

17. Is the total tree clearing area for the proposed project about 0.84 acres? Would all tree clearing occur within upland areas? Is the proposed tree clearing to accommodate the footprint of the project or because of shading issues or a combination of both?

Response: Yes, the tree clearing for the proposed project is approximately 0.84 acres and would occur entirely in upland areas. The proposed tree clearing is required to limit shading issues that could impact the efficiency and performance of the proposed panels.

18. Describe the visibility of the proposed solar facility from the Airline Trail to the west. Are there any other hiking trails in the vicinity of the project? Would the proposed solar facility be visible from such trails?

Response: Visibility of the solar facility from the Airline Trail to the west would be extremely limited. Leaf on and off views of a small portion of the northeast corner of the solar facility may be possible while accessing the trail but are muted by coniferous and deciduous trees along the edge of the rail-trail corridor. Views of this section of the Facility would be further minimized by the wetland restoration plantings that are proposed. No other hiking trails were observed within the vicinity of the Project Site.

19. Where is the nearest residence from the proposed solar facility located? Provide the distance and direction. Would the proposed solar facility be visible from such location?

Response: The nearest structure, BH Davis and Company (227 Riverside Drive), is located approximately 488 feet west (measured from the facility edge to the residential property boundary) from the proposed solar facility. The nearest residence, 42 Thompson Road, is located approximately 888 feet north (again, measured from the facility edge to the residential property boundary) from the proposed solar facility. Due to intervening topography and vegetation and the distances to the proposed facility location, neither residence would have views of the proposed facility.

20. Is the proposed project located near any Important Bird Areas designated by the Connecticut Audubon Society?

Response: The closest Important Bird Area, the Bafflin Sanctuary Complex, is located approximately four (4) miles southwest of the proposed project.

21. Would the solar panels "heat" rainwater and potentially thermally pollute wetlands?

Response: The panels will not cause an increase in the temperature of the rainwater runoff. The time that the rainwater will come in contact with the solar panels is extremely short due to a 25-degree fixed pitch, and the smooth surface of the glass (minimal friction) as well as the openings between each panel which reduce the length of the potential flow path. Once off the panel, rain water will infiltrate into the soil and/or mix with other surface water flowing from the grassed areas.

Additionally, when it is raining the sky will be cloudy, thus significantly reducing the surface temperature of the panel glass.

Finally, the facility is located on a fairly flat portion of land. As a result, any stormwater that comes into contact with the solar panels would fall to the ground and mix with stormwater that has not come into contact with them. This would then take, on average (and based off half of the drainage time of concentration) 15.5 minutes to reach the wetland locations, thus allowing for any possible temperature increase to be negated.

22. A fence is not proposed around the solar facility itself. Is the Petitioner aware of any code requirements that require fences around solar facilities? Or are there code requirements or recommendations for fencing around the high voltage electrical equipment (e.g. solar facility's equipment pad)? If yes, please cite the applicable code(s) that require or recommend fences. Notwithstanding, has the Petitioner considered installing a fence around the electrical equipment pad as a safety measure? If yes, would the Petitioner utilize an anti-climb mesh of less than two inches to prevent unauthorized entry by personnel and a height of at least eight feet to prevent entry by deer?

Response: C-TEC has decided to install a perimeter fence encompassing both the module and the electrical pad. The electrical pad will have bollards surrounding it, but it will not have its own perimeter fence within the sites perimeter fence. There will no longer be a new gate at the North and South Eastern entrances. Instead, a gate in the North East corner next to the pad, rather than next to RT 193 will be installed. C-TEC will provide an updated layout showing the perimeter fence.

23. Estimate the amounts of cut and fill in cubic yards for the proposed project.

Response: The installation of the infiltration basin and reconstruction of the access drive requires approximately 300 CY of material to be generated from the cut. Excess cut material will be reused on site to fill existing depressions. The construction will result in no excess material being trucked off site.

24. How would the piles (that support the racking system) be driven into the ground? In the event that ledge is encountered, would mechanical chipping or re-location of the piles be utilized in lieu of blasting?

Response: The proposed racking is post driven. If the post hits mechanical refusal, the post will be concreted in place using a sonotube.

25. How would the Petitioner handle potential snow accumulation on the panels and its effects of blocking the sunlight?

Response: In general, it is not required that any snow clearing occur; however, snow may be cleared for power production reasons. This is a purely business decision.

26. Has any analysis been conducted to determine structural limits of snow accumulation on the solar panels and steel support structures, assuming heavy, wet snow and or ice? What accumulation of snow could the structures handle? Would the Petitioner clear snow from the panels when it approached the limit?

Response: The structure will be designed to the 50 year snow load design criteria, which assumes a snow accumulation of 40 pounds per square foot (psf). In general, it is not required that any snow clearing occur for structural reasons; however, snow may be cleared for power production reasons. This is a purely business decision though and in no way required for structural integrity.

27. Would the installed solar panels require regular cleaning or other, similar, maintenance? How would this be accomplished?

Response: Regular cleaning of the panels is not anticipated at this time.

Respectfully Submitted,

Brad N. Mondschein