

Tighe & Bond

Pumpkin Hollow Solar Project
29 Pumpkin Hollow Road
Egremont, Massachusetts

Special Permit/ Site Plan Review

Prepared for:

**Kearsarge Energy LP
Watertown, Massachusetts**

October 2016

K-0092-04
October 17, 2016

Helen Krancer
Planning Board Chair
171 Egremont Plain Road
S. Egremont, MA 01258

Re: **Joint Special Permit / Site Plan Review Application
Pumpkin Hollow Solar Project, Egremont, MA**

Ms. Krancer and Members of the Egremont Planning Board:

Tighe & Bond is pleased to submit one electronic copy and six hard copies of the enclosed joint Special Permit / Site Plan Review application on behalf of Kearsarge Solar LLC (Kearsarge). The project consists of the installation of a solar photovoltaic array over three lots within one parcel located at 29 Pumpkin Hollow Road. The Site Plans have been developed in accordance with the Town of Egremont's Zoning Bylaw, specifically Sections 5.6.5 (Large-Scale Ground-Mounted Solar Site Plan Review) and 6.2 (Special Permits). The application also contains a narrative discussion of how the proposed project complies with the Special Permit and Site Plan Review requirements and approval criteria. Required figures and plans are provided in the appendices to this narrative. The required Special Permit application fee of \$290 (\$250 plus an additional \$40 for additional abutters) is included with the application.

The application package also includes the following materials:

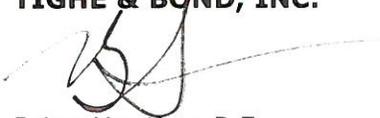
- Application for Special Permit
- Special Permit / Site Plan Review Narrative
 - Appendix A: Figures
 - Appendix B: Project Drawings
 - Appendix C: System Equipment Specifications
 - Appendix D: Solar Array Operation & Maintenance Plan
 - Appendix E: Interconnection Information
 - Appendix F: Decommissioning Plan/ Estimate
 - Appendix G: Proof of Liability Insurance
 - Appendix H: Abutters

A certified list of abutters within 300 feet of the property line was requested from the Town's Assessor's office and has been provided with this application. It is our understanding that the Town will undertake the necessary abutter notification and legal advertisement for a public hearing, and we have included two addressed envelopes for each abutter on the certified Assessors List, as well as the Planning Boards of each abutting municipality. We request that the Planning Board accept this application at your regularly scheduled October 17, 2016 meeting, and schedule a public hearing the week of October 31, 2016.



We look forward to coordinating with the Planning Board during its review of this application. If you have any questions, please do not hesitate to reach me by email at BSHuntley@tighebond.com, or by phone at 413-875-1301.

Very truly yours,
TIGHE & BOND, INC.



Brian Huntley, P.E.
Project Manager

Enclosures: 6 copies of the complete application package (including 6 copies of the project plans)
1 electronic copy of the complete application package

Copy: Henry Barrett, Kearsarge Solar, LLC

J:\K\K0092 Kearsarge Energy\Permitting\Egremont_Pumpkin Hollow\SP_SPR\Cover Letter.Doc



Tighe & Bond

**Application for Special Permit
Copies of Fee Checks**

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 1 300' Abutters Figure
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 Note: Pre-addressed envelopes are provided under separate cover.

Planning Board

APPLICATION FOR

SPECIAL PERMIT HEARING

Name of Applicant Kearsarge Solar, LLC

Address 480 Pleasant Street, Suite B110; Watertown, MA 02472

Location of Property 29 Pumpkin Hollow Road, Egremont, MA 01258

Registry of Deeds Recorded Book 1512 Page 35

Applicant is tenant (owner, tenant, licensee, prospective buyer)

Applicable Section of the By-Law Section 5.6.3

Nature of Application (description of business, hours of operation, etc. The proposed project includes construction of a ground mounted solar photovoltaic (PV) array with a cumulative Direct Current (DC) nameplate generating capacity of approximately 1.1 megawatts (MW)(DC) located at 29 Pumpkin Hollow Road in Egremont, Massachusetts. The parcel is located in the general zoning district. Per the Egremont Zoning Bylaw, solar PV is permitted by-right only in the Large-Scale Ground-Mounted Solar Photovoltaic Installation (LGSPI) Overlay District; otherwise solar may be permitted by a Special Permit from the Planning Board (Section 5.6.3).

I/We hereby request a hearing before the Special Permit Granting Authority with reference to the above noted application.

Signed: [Signature] Date: 10/17/2014

Signed: _____

Title or Interest: Manager

Applicant must also submit all information required by the Planning Board Rules and Regulation, available at the Egremont Town Hall.

Please note that Assessors require seven (7) days notice to compile abutters list.

Received from the Applicant(s) the sum of \$ _____ to be applied against postage, advertising costs, and permit fee on (date) _____.

Signed: _____

KEARSARGE ENERGY LP
480 PLEASANT ST SUITE B110
WATERTOWN, MA 02472

CAMBRIDGE SAVINGS BANK
53-7112/2113

1342

10/14/16

PAY TO THE ORDER OF Town of Egremont \$ 290 ~~00~~

Two hundred ninety and ~~00~~ DOLLARS

MEMO Pumpkin Hollow Solar Project

Anne J. Bernstein
AUTHORIZED SIGNATURE

⑈001342⑈ ⑆211371120⑆ 564881017⑈

KEARSARGE ENERGY LP

1342

Details on Back
Security Features Included



Tighe & Bond

Section 1

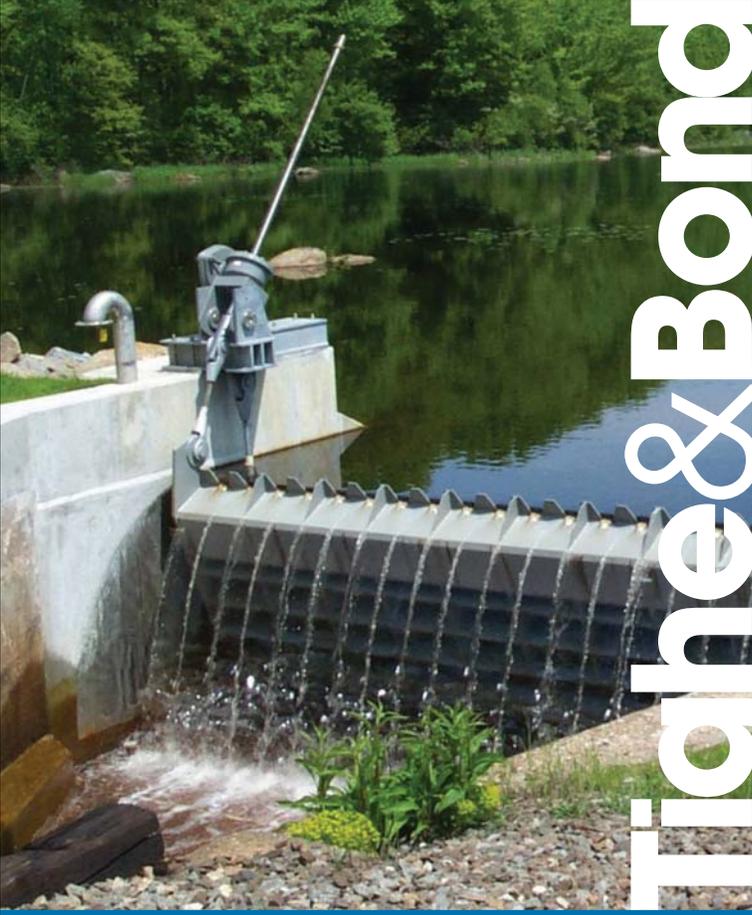
Introduction

On behalf of Kearsarge Solar, LLC (“Kearsarge” or the “Applicant”), Tighe & Bond is pleased to submit a joint Site Plan Review and Special Permit application to the Town of Egremont Planning Board for the Pumpkin Hollow Solar Project (“the project”). The proposed project includes construction of a ground mounted solar photovoltaic (PV) array on 3 lots with a cumulative Direct Current (DC) nameplate generating capacity of approximately 1,100 kilowatts (kW)_(DC) located at 29 Pumpkin Hollow Road in Egremont, Massachusetts. The Applicant will lease a portion of the subject parcel from the property owners.

The subject parcel is located in the general zoning district. Per the Egremont Zoning Bylaw, solar PV is permitted by-right only in the Large-Scale Ground-Mounted Solar Photovoltaic Installation (LGSPI) Overlay District which is comprised of one Town-owned parcel; otherwise solar may be permitted by a Special Permit from the Planning Board. The Egremont Building Inspector confirmed that solar can be permitted outside the LGSPI Overlay District by Special Permit.

Tighe & Bond is submitting a joint Site Plan Review and Special Permit application to the Planning Board. We respectfully request that the Planning Board hold a joint hearing to review the Site Plan Review and Special Permit. The application has been prepared in compliance with Sections 5.6.5 (Large-Scale Ground-Mounted Solar Site Plan Review) and 6.2 (Special Permits) of the Egremont Zoning Bylaw.

A project site Orthophotograph and Priority Resource figure are provided in Appendix A. Project drawings are provided in Appendix B. The required application fee of \$290.00 (Special Permit fee plus 4 additional abutters) is included with this application.



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Section 2

Project Description

2.1 Project Site Description

2.1.1 General Description

This section provides a site description and resource area characterization for the project area. Land use in the general vicinity of the project area was determined based a review of information available through the Massachusetts Geographic Information System (MassGIS) and survey conducted by Foresight Land Services in December 2009 and January 2010.

The project site is comprised of three lots of a ten lot parcel (Parcel ID 002-0874) owned by the Barrett Family Trust and/or members of the Barrett family. Lot 1 (comprised of Parcel IDs 002-0874A and 002-0874.1) occupies approximately 7.6 acres. Lot 4 (Parcel ID 002-0874.4) occupies approximately 8 acres. Per the Town of Egremont Assessor's database, the property address for Lot 1 is 1 Sky Farm Road while Lot 4 is located at 17 Sky Farm Road. As proposed, the ground-mounted solar PV array will occupy approximately 2.8 acres of Lot 1 and 5.4 acres of Lot 4.

Components of the system to be installed at the project site include solar panels, mounting substrates, wiring and connections, power inverters, service and metering equipment, and interconnection with the utility. Following receipt of permits and an interconnection agreement, the Applicant will install, operate and maintain, and ultimately decommission the solar PV array.

PID 002-0874 is bordered by Pumpkin Hollow Road to the east and Egremont Plain Road to the south/southwest. The Egremont/Great Barrington Town line is coincident with the easternmost parcel line. The Green River flows to the south and in the southwest of the parcel. Lot 1 is located in the eastern portion of the larger parcel while Lot 4 is located in the northwest of the larger parcel. There is a wood veneer wholesale/retail operation (Berkshire Veneer) located on the parcel; to the immediate southeast of Lot 4 and the northwest of Lot 1. Existing land uses in the surrounding areas include single-family residences to the south and southeast, undeveloped land to the north and northwest, and a violin repair shop to the southeast. The subject parcel and all of the directly abutting parcels are also located in the general zoning district.

Existing access to the site is from Pumpkin Hollow Road. Existing conditions are depicted on Sheets C-1, C-2 and C-3 in Appendix B.

2.1.2 Zoning

The subject parcel is located in the general zoning district. With the exception of one neighborhood residential district (located approximately 3.4 miles southeast of the site), the entire Town is contained within the general zoning district. Per Section 5.6, solar PV is permitted by-right only in the Large-Scale Ground-Mounted Solar Photovoltaic Installation (LGSPI) Overlay District which is comprised of one Town-owned parcel. Per an April 2016 phone call, the Egremont Building Inspector confirmed that solar PV installations may be permitted outside of the LGSPI Overlay District by Planning Board Special Permit. Under 5.6.5, all solar PV installations are subject to Site Plan Review by the Planning Board.

This application has been prepared in compliance with Section 5.6.5 and 6.2 of the Zoning Bylaw of the Town of Egremont. The application also considers the General District Use Regulations (Section 4.1).

2.1.3 Setbacks

The subject parcel is located entirely within the Town's "general" zoning district which has the following dimensional and setback requirements for all non-residential uses:

- Minimum lot size of one acre;
- 150 feet of frontage;
- 40-foot front yard setback;
- 25-foot side yard setback;
- 25-foot rear yard setback; and
- 35-foot maximum height.

Further, pursuant to solar installation use regulations (Section 5.6.6), any solar PV installation, including security fences surrounding the installation, must be set back from the property line by a distance of 50 feet, and the height of structures shall not exceed 15 feet above the preexisting natural grade.

The proposed solar PV array is compliant with all the applicable zoning setbacks referenced above. We have assumed that the project is eligible for relief from 50' solar setbacks and frontage requirements in certain instances where contiguous parcels are under common ownership. All set backs are denoted on Sheets C-4, C-5 and C-6 in Appendix B.

2.1.4 Wetlands and Rare Species

Environmental factors including jurisdictional wetland resource areas, rare and endangered species, vernal pools, regulated floodplain, areas of protected open space, and Areas of Critical Environmental Concern (ACEC) were evaluated based on available GIS data and field observations. There are no mapped Certified or Potential Vernal Pools, drinking water areas, areas of protected open space or ACECs within the limit of work for either Lot. Please refer to the Priority Resource figure (Figure 2) in Appendix A for reference.

Wetland resource areas were delineated by Foresight Land Services in December 2009. Tighe & Bond also reviewed the FEMA Flood Insurance Rate Map (FIRM) for the general project area. The project area is not located within the limits of 100-year floodplain.

The Town of Egremont does not have a local wetlands bylaw, but the following wetland resource areas identified within or near the project area are subject to jurisdiction under the Massachusetts Wetlands Protection Act (MAWPA):

- Inland Bank (associated with waterbodies)
- Bordering Vegetated Wetlands (BVW)

Descriptions of jurisdictional wetland resource areas per the MAWPA are provided below.

2.1.4.1 Inland Bank

Wetland flags P-1 through P-29 demarcate the top of Bank of the intermittent stream located west of the solar array on Lot 1.

2.1.4.2 Bordering Vegetated Wetlands

Wetland flags R-1 through R-24 demarcate the limits of a BVW located adjacent to the intermittent stream described above. The BVW is a seasonally flooded/ saturated freshwater forested/ shrub wetland.

The Applicant will submit a Notice of Intent (NOI) to the Egremont Conservation Commission due to construction impacts to 100-foot buffer zone to Inland Bank and/or BVW. In addition, please note that the Applicant submitted a NOI for drainage improvements to the site in January 2012, and received an Order of Conditions (DEP Wetlands File # 153-0193) for the work. The work permitted under that Order of Conditions has been completed.

2.1.4.3 Rare Species

The Massachusetts Natural Heritage and Endangered Species Program (NHESP) Atlas, 13th Edition, effective October 1, 2008, and Mass GIS online mapping (data updated October 2008) were consulted during the planning phase of this project. According to these sources, the proposed work will not occur within designated Priority Habitats of Rare Species and Estimated Habitats of Rare Wildlife. A Priority Resource Map illustrating the absence of NHESP Priority and Estimated Habitats relative to the proposed limits of work is provided as Figure 2, in Appendix A.

2.2 Project Description

Kearsarge is proposing to develop an approximately 1,100 kW_(DC) solar array across three lots on the subject parcel, pending receipt of necessary regulatory approvals. The limit of work is shown on Sheets C-4, C-5 and C-6 of Appendix B. The solar system components are listed in Table 2-1, below.

The plan set for the Pumpkin Hollow Solar Project is included in Appendix B. The drawing set includes the following drawings:

- Cover Sheet
- General Notes and Details (Sheet G-1)
- Existing Conditions (Sheet C-1, C-2, and C-3)
- Proposed Conditions (Sheet C-4, C-5, and C-6)

**TABLE 2-1
Photovoltaic Solar Array Details
Pumpkin Hollow Solar Project, Egremont, MA**

Equipment/Component	Description
System Size (DC):	1,100 kW
Photovoltaic Modules:	Approximately 3,600 (310 Watt) PV modules
Inverters:	Solectria string inverters, or equivalent
Mounting System:	Driven RBI racking tables at 25°

Proposed activities include installation of solar PV modules, and installation of a seven-foot galvanized chain-link security fence along the facility's perimeter.

The solar modules will be erected using a driven post mounting system, which will position the modules at a 25-degree tilt and a 180-degree azimuth. The frame and driven post foundations of the system conform to the requirements of the Massachusetts State Building Code. Panels will be mounted in continuous rows using a RBI racking system. The maximum height of each racking system will be approximately 8 feet. The proposed fence will be installed around the perimeter of the solar array. There will be sufficient room between the fence and solar modules to allow a service vehicle to travel the array perimeter, inside the fence. The existing access road (Sky Farm Road) will be used to gain access to the solar array and associated equipment. System component specifications are provided in Appendix C.

Kearsarge and/or its authorized subcontractors will perform site maintenance to ensure safety and prevent shading impacts. Additional information is provided in the Operation & Maintenance Plan provided in Appendix D.

At the end of its useful life, Kearsarge will decommission and remove the system.

2.2.1 System Equipment

2.2.1.1 Photovoltaic Equipment

Sheets C-4, C-5, and C-6 in Appendix B depict the layout of the solar arrays. The PV facilities are comprised of approximately 3,600 PV modules, associated wiring components and multiple inverters. The PV modules will be wired into strings.

2.2.1.2 Racking System

The proposed project will utilize a driven post I-Beam solar array mounting system. As proposed, the rows of racks will run east-west. The panels will be mounted facing south at a fixed 25° angle to ground surface. The front end of the southerly facing rows of PV modules will be approximately 3 feet off of the ground surface. The back side of the rows of PV modules will be approximately 7 to 8 feet above the ground surface. The rows will be spaced approximately 15 feet apart, to reduce shadow impacts and to allow for solar system maintenance.

2.2.1.3 Cable Conduit and Utilities

Each row will have an integrated combiner and disconnect switch into which the panel wiring feeds. From the combiner box, energy will be transmitted to one of two Yaskawa Solectria inverters located on an equipment pad located at the northern extent of the Lot 1 array, and the center of the Lot 4 array.

2.2.2 Electrical Equipment and Interconnection

Three reinforced concrete electrical equipment pads will support the electrical equipment as shown in project drawings. In addition to the inverters noted above, the electrical equipment pads will also contain switchgear and a transformer that will step-up the power prior to interconnecting with National Grid's (NGRID) local distribution circuit.

The electrical components are shown on the one-line diagram in Appendix E. An Interconnection Application was submitted to National Grid (NGrid) and an Interconnection Service Agreement was issued August 11, 2016.

In operation, the DC power produced by the solar array sub-facilities is converted to three-phase AC power by the inverters, which is then supplied into the electrical main utility switchboard at a separate point, which effectively enables them to function independently. The sub-facilities are then collectively interconnected to the utility system through a series of step-up transformers that converts the output of the inverter to 13.8 kV.

It is anticipated that above ground conduits will convey power from the equipment pads to the interconnect locations. An emergency system cut-off switch will be installed in a location designated by Town emergency personnel.

2.3 Project Schedule

The schedule for the project is presented in Table 2-2, below. As indicated below, construction is anticipated to commence in December 2016.

**TABLE 2-2
Project Schedule**

Project Phase	Timeframe
System Design	July 2016 – August 2016
Permitting	September 2016 – November 2016
Interconnection Study	May 2016 – August 2016
Construction	December 2017 – March 2017

2.4 Construction Impacts

Minimal impacts are expected during or as a result of construction of the array. The proposed project includes the use of existing access roads. The location of the existing access roads is shown on the site plans in Appendix B.

Construction of the proposed Project will include stabilizing the construction entrances/exits and roadways and establishing the parking and staging areas for vehicle and equipment storage/laydown and maintenance. The laydown areas will be used for pre-assembly of components and materials storage/staging. These areas will also provide construction worker parking. The site access roads will remain in place for the operational phase of the Project. The solar array will have a perimeter fence with 7-foot-high chain link fencing with entry gates. The solar array will have a transformer and switchgear mounted on a poured in place concrete foundation.

Prior to the installation of the rows of PV modules, tree trimming and clearing activities will be completed to create a shade free area to install the photovoltaic modules. The project also consists of select removal and clearing of the existing vegetation. Approximately 1 acre of existing vegetation north and northwest of the Lot 1 array is proposed for clearing (as shown on Sheet C-2 in Appendix B) and approximately 5 acres are proposed for clearing on Lot 4 (as shown on Sheet C-3).

The vegetation will be cut and stumps within the proposed fenced-in area will be removed and stabilized. Stumps located outside the fenced area will remain in place. All cut vegetation will be chipped on-site and disposed of or left in place to further stabilize the site. Site preparation will be conducted in accordance with the plans submitted with this application package, and will be and approved by the Town of Egremont.

2.5 Facility Operations

2.5.1 Operations and Maintenance

The Operation and Maintenance (O&M) plan for the solar array is provided in Appendix D. No post-construction stormwater management controls are being proposed as there will not be an increase in runoff from the site and the project will not alter existing flow patterns. Please refer to Section 3 for a discussion of Stormwater Management at the site. Kearsarge will be the responsible party for the following operations and maintenance activities on the Site:

- Grounds maintenance and maintenance within the limits of the leased premises;
- Maintenance of access ways within the leased premises;
- Mowing within the limits of the leased premises; and
- Snow removal and plowing, as necessary to accommodate maintenance activities.

The Landowner will retain the responsibility for maintenance and repair of the access road to the leased premises.

2.5.2 Site Security

Fencing is proposed around the perimeter of the solar facility. Signage indicating high voltages within the limits of the PV array will be provided on the outside of the perimeter fencing. Additionally, the project addresses the site security requirements of the National Electric Code (NEC) through the use of wiring encased in conduit, and the installation of a fence and locks around the equipment solar array and electrical equipment pads. There are no lights or security cameras proposed as part of the project.

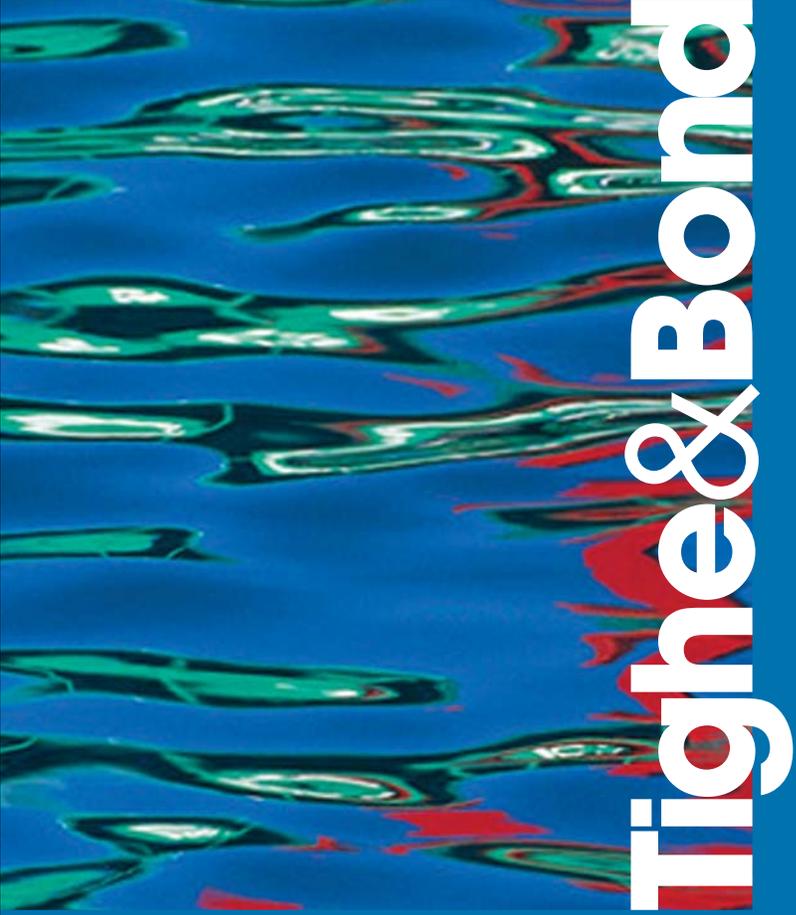
2.5.3 Inverter Noise Impacts

The proposed inverters will not create a nuisance sound condition for abutting properties and will comply with MassDEP's Noise Policy #90-001.

2.6 Decommissioning

Kearsarge will decommission and remove the system from the parcel at the end of its useful life. System components include: solar panels, mounting substrates, system foundations, wiring and connections, duct banks and conduits, power inverters, service

and metering equipment, and the utility interconnection. Disturbed surfaces will be restored with loam and seed. The parcel will be left in similar condition to pre-installation as well as be in compliance with applicable regulations and permits. A Decommissioning Plan and decommissioning cost estimate are provided in Appendix F.



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Section 3

Stormwater Management

The following section details how the Project will comply with the requirements of the Site Plan Review criteria for stormwater management as required by the Zoning Bylaw. Section 5.6.5.3(b)(v) requires that the project demonstrate how stormwater will be managed to comply with best management practices to minimize erosion. The following section describes the existing and proposed conditions of the project as they pertain to stormwater runoff.

3.1 Existing Conditions

Land use in the general vicinity of the project area was determined based on a review of information available through the Massachusetts Geographic Information System (MassGIS). The project sites consist of two parcels of land. Lot 1 is approximately 7.2 acres and Lot 4 is approximately 7.9 acres. Both parcels comprising Lot 1 are owned by William F. Barrett III, Margery (Jill) B. Barrett, Peter S. Barrett, and Benjamin C. Barrett. and are identified as Assessors' Map 2 Lot 874A and 847.1 (Book 1512, Page 35). Lot 4 is owned by Benjamin C. Barrett and is identified as Assessors' Map 2 Lot 874.4 (Book 2175, Page 297). The project sites are surrounded mainly by woodlands and farm pastures. There are two large ponds that abut Lot 1 and are just south Lot 4. These ponds are likely from the previous gravel pits on-site that predate the farm. A few residences are located near Lot 1, along Pumpkin Hollow Road, but the majority of the land around the project sites is undeveloped. Both parcels are located in the Town of Egremont's General Zone District. The limits of the projects and the project sites topography are depicted on the Permit Drawings attached separately. See Figures 1-3 in Appendix B for a USGS Site Locus Figure, Priority Resource Figure and orthophotograph Vegetation Cover figure for the area.

Soils within the project area, as published in the USDA Soil Survey for Berkshire County, Version 15, dated September 6, 2016, are predominantly Hoosic gravelly fine sandy loam with smaller areas of Farmington-Rock outcrop. Just outside of the project areas are gravel pits that include the quarry ponds on the neighboring parcels. The hydrologic soil group (HSG) for each soil type is presented in Table 3-1 below.

TABLE 3-1
Soil Descriptions

Soil Map Designation	Soil Name	Hydrologic Soil Group (HSG)
108C	Farmington-Rock outcrop complex, 3-15% slopes	D
272B	Hoosic gravelly fine sandy loam, 3-8% slopes	A
272C	Hoosic gravelly fine sandy loam, 8-15% slopes	A
600	Pits, Gravel	-

Soils designated as HSG A are generally well draining and have a high capacity for water infiltration. Soils designated as HSG D generally have little or no infiltration capacity and are generally impervious. Based on this, soils within the project areas are highly conducive to infiltration with the exception of the areas where there are rock outcroppings.

Groundcover throughout the sites is predominantly woodland and grassed pastures. Areas located at the northern end of Lot 4 have been previously logged and will not require further clearing. The pre-development stormwater runoff from Lot 4 generally flows from East to West through the existing woods to the open area around the farm buildings. Lot 1 is undeveloped and un-forested. The pre-development Stormwater runoff on that parcel flows from the North property line South to the existing 24-inch RCP culvert that runs under Sky Farm Road. The large pond to the West of this parcel is topographically lower than the existing culvert and does not contribute hydrologically to the stormwater runoff for that parcel. Based on soils information and topography of the sites, the majority of the stormwater currently infiltrates into the sandy soils with very little run-off onto the adjacent parcels.

3.2 Proposed Conditions

The project consists of a ground-mounted solar PV system on two parcels for a combined generating capacity of 1.1MW. As proposed, the limit of work of the proposed project on Lot 1 will occupy approximately 2.8 acres of the 7.2-acre site. The limit of work on the Lot 4 is limited to 5.4 acres of the 7.9-acre total area. Proposed construction activities at both of the sites include selective vegetation clearing, installation of solar PV modules, conduit trenching, utility interconnection, and the installation of an eight-foot high chain-link security fence along the perimeters of each facility.

The project also consists of select removal and clearing of the existing vegetation. Erosion and sedimentation controls will be installed around the project site prior to vegetation removal. The vegetation will be cut and stumps within the proposed fenced-in area will be removed and stabilized. Stumps located outside the fenced area will remain in place. All cut vegetation will be chipped on-site and disposed of or left in place to further stabilize the site.

The solar modules will be erected using a driven post foundation system. As shown on the Permit Drawings, the proposed PV arrays will be located outside of the 25-foot buffer zone to wetland resource areas.

Kearsarge and/or its authorized subcontractors will perform site maintenance to ensure safety and prevent shading impacts. Mowing of the grass between the rows of racks will occur as needed but estimated at twice per year. No herbicides or chemicals will be used to manage vegetation.

The actual sequence of construction will be determined by the selected construction contractor. The following is a proposed sequence of construction for the project:

- 1) Conduct a preconstruction meeting with the owner or owner's representative, representatives/officials of the Town of Egremont, design engineer, contractor and site superintendent to establish the limits of construction and construction procedures.
- 2) Field stake the limits of construction.
- 3) Install all applicable soil and erosion control measures around the perimeter of the site to the extent possible. This will include siltation fence around the project as shown on the plans.
- 4) Establish temporary staging area.

- 5) Clearing of trees and stumps.
- 6) Construction of the solar array, including all electrical components and conduits.
- 7) Stabilization of any disturbed areas during construction.

The construction will occur starting at one end of a row with the driven piles driven first, then the racking and panels will be installed on the piles and the construction will continue down each row to the end of the row.

The topography of the site will not significantly change by the proposed development. While the proposed installation requires that existing trees and stumps be removed, the existing topography shall remain generally unchanged. Micro-grading, or the grading of existing undulations, will occur prior to installation of the solar array; however, this activity will not cause substantial changes to drainage areas or stormwater flow paths on the site

Within the solar array, stormwater will fall onto the PV modules and will flow off the edge into the grassy ground cover. Stormwater runoff will continue to flow across the ground surface as under existing conditions. Stormwater runoff quantity will not be increased as part of the proposed development.

3.3 Hydrology

3.3.1 Existing Conditions Hydrology

Lot 1 Parcel:

The existing site is primarily woodland and open grass fields. A large quarry pond is on an adjacent parcel and a wetland area runs north to south, fifty feet west of the proposed limit of work. Stormwater currently drains to the wetland area at the center of the site and then to a 24-inch RCP pipe at the southern end of the wetland area. The 24-inch RCP pipe runs under the existing dirt road and discharges into a wooded wetland area on an adjacent property. Based on the HSG rating for the soils presently on site, the existing composite runoff curve number (CN) value of Lot 1 is 48. CN is an empirical factor used in hydrology for predicting direct runoff or infiltration from rainfall. This CN value for Lot 1 is based on the following specific ground coverages:

- Water Surface, HSG A (CN 98)
- Woods/grass comb., in good condition, HSG A (CN 32)
- Grass, 50-75% coverage, HSG A (CN 49)
- Woods/grass comb., in good condition, HSG D (CN 79)
- Grass, 50-75% coverage, HSG D (CN 84)

Lot 4 Parcel:

The North Parcel is mostly woodland at the northern end of the site and a developed farmstead at the southern end. A portion of the woodland to the north of the existing building has been previously logged. The only priority resource area identified on-site is an Interim Wellhead Protection Area (IWPA) that encompasses half of the parcel as shown on Figure 2 in Appendix B. Stormwater runoff currently flows in an easterly direction from topographically higher ground at the west edge of the parcel. Based on the HSG rating for the soils presently on site, the existing composite CN value of Lot 4 is 41. This value is based on the following specific ground coverages:

- Roofs, HSG A (CN 98)
- Woods, in fair condition, HSG A (CN 36)
- Farmsteads, HSG A (CN 59)

3.3.2 Proposed Conditions Hydrology

The proposed Project will not substantially alter stormwater rates, volumes, or flow paths at either of the proposed sites (Lot 1 & Lot 4). Under proposed conditions, the wooded vegetation within the limit of work will be converted to a combination of meadow grass and solar panels. Stormwater will fall onto solar panels and will flow off the edge into the vegetated surface and flow along existing flow paths as under the existing conditions. Therefore, the only solar panels that are considered impervious will be the most up-gradient panels in each subcatchment.¹ The remainder of the solar facility within the limit of work will be considered meadow. Meadow, as described in the NRCS TR-55 manual, is considered "continuous grass, protected from grazing and generally mowed for hay". This description matches the proposed conditions of the development as the grass will not be mowed regularly, as in a lawn situation.

Lot 1 Parcel:

The composite proposed conditions CN value for Lot 1 is 43. This value is based on the following specific ground coverages:

- Water Surface, HSG A (CN 98)
- Woods/grass comb., in good condition, HSG A (CN 32)
- Grass, 50-75% coverage, HSG A (CN 49)
- Woods/grass comb., in good condition, HSG D (CN 79)
- Grass, 50-75% coverage, HSG D (CN 84)
- Unconnected pavement, HSG A (CN 98)
- Meadow, Non-grazed, HSG A (CN 30)
- Meadow, Non-grazed, HSG D (CN 78)

Lot 4 Parcel:

The composite proposed conditions CN value for the North Parcel is 37. This value is based on the following specific ground coverages:

- Roofs, HSG A (CN 98)
- Woods, in fair condition, HSG A (CN 36)
- Farmsteads, HSG A (CN 59)
- Unconnected pavement, HSG A (CN 98)
- Meadow, Non-grazed, HSG A (CN 30)

¹ Cook, L.M. & McCuen, R. H., (2013). Hydrologic Response of Solar Farms. *Journal of Hydrologic Engineering*, 18(5). pp.536-541

Table 3-2 compares the existing and proposed ground coverage data for Lot 1.

**TABLE 3-2
Existing and Proposed Conditions Runoff CN Determination – Lot 1**

Existing			Proposed		
	Area (acre)	CN		Area (acre)	CN
Total	6.7		Total	6.7	
Water Surface (HSG A, Poor)	0.01	98	Water Surface (HSG A, Poor)	0.01	98
Woods/Grass (HSG A, good)	2.58	32	Woods/Grass (HSG A, good)	1.85	32
Grass cover, 50-75% (Fair, HSG A)	3.06	49	Grass cover, 50-75% (Fair, HSG A)	1.28	49
Woods/Grass (HSG D, good)	0.61	79	Woods/Grass (HSG D, good)	0.25	79
Grass cover, 50-75% (HSG D, Fair)	0.47	84	Grass cover, 50-75% (HSG D, Fair)	0.75	84
			Unconnected Pavement	0.06	98
			Meadow, non-grazed (HSG A)	2.48	30
			Meadow, non-grazed (HSG A)	0.74	78
Resultant CN		48	Resultant CN		43

Table 3-3 compares the existing and proposed ground coverage data for the North Parcel.

**Table 3-3
Existing and Proposed Conditions Runoff CN Determination – Lot 4**

Existing			Proposed		
	Area (acre)	CN		Area (acre)	CN
Total	7.9		Total	7.9	
Roofs (HSG A)	0.3	98	Roofs (HSG A)	0.30	98
Woods (HSG A, fair)	6.66	36	Woods (HSG A, fair)	1.69	36
Farmsteads (HSG A)	1.04	59	Farmsteads (HSG A)	0.73	59
			Unconnected Pavement	0.08	98
			Meadow, non-grazed (HSG A)	5.19	30
Resultant CN		41	Resultant CN		39

The tables above indicate that the CN value is decreased under proposed conditions for both the east and the north site. Since the CN value generally determines the quantity of stormwater runoff from a subcatchment, it is presumed that the proposed conditions

scenario will result in a decrease in stormwater runoff quantities. The reduction in CN is primarily a result of the conversion of wood/grass combination to a meadow-type of grass, which when paired with soils conducive to infiltration, result in more groundwater recharge and reduced runoff. The CN value comparison assumes that in each drainage subcatchment, only the topographically highest row of panels is considered impervious due to the nature of how stormwater will continue to travel on the site beneath panels downgradient. This approach is conservative, in that the panels from which the time of concentration was calculated is not the most hydrologically remote point, but results in a reduction in peak discharge rates from the site.

The following section details the aspects of the project as they pertain to the Massachusetts Stormwater Management Regulations, and how the project complies with each standard in detail.

3.4 Erosion Control

The project includes erosion and sedimentation control features as shown on the Site Plans. These features include an erosion control barrier located at the downgradient edges of the project site, as well as a stabilized construction entrance to reduce sediment track-out from the construction site.

Additionally, there will be more than one acre of land disturbed as a result of this project, therefore an EPA National Pollutant Discharge Elimination System (NPDES) Construction General Permit will be obtained before construction commences. Prior to construction, the contractor will prepare a Stormwater Pollution Prevention Plan (SWPPP) identifying construction period pollution prevention and erosion and sedimentation control measures as well as routine erosion control inspection protocol.



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Section 4

Compliance with Special Permit Criteria

The subject parcel is located in the general zoning district. Per the Egremont Zoning Bylaw, solar PV is permitted by-right only in the LGSPI Overlay District. Per Section 5.6.3 (Large-Scale Ground-mounted Solar Photovoltaic Installation Overlay District - Relationship to Other Districts), the installation of solar photovoltaic systems as a principal use may be permitted by Special Permit issued by the Planning Board.

This Section addresses the requirements of Section 6.2.4 (Special Permit Criteria) and 1.3 (Purpose) of the Town's Zoning Bylaw.

4.1 Special Permit Criteria Section 6.2

Under Section 6.2.4. of the Egremont Zoning Bylaw, the Special Permit Granting Authority shall find that the proposed use:

- Is in compliance with all other provisions and requirements of the Bylaw, and in harmony with its general intent and purpose;
- Is desirable to the public convenience or welfare at the proposed location;
- Will not be detrimental to adjacent uses or to the established or planned future character of the neighborhood;
- Will not create undue traffic congestion, or unduly impair pedestrian safety; and
- Will not overload any public water, drainage or sewer system or any other municipal facility to such an extent that the proposed use or any existing use in the immediate area or in any other area of the Town will be unduly subjected to the hazards affecting public health, safety or general welfare.

Public Welfare and the Natural Environment – As discussed in Section 2.4, the project requires select removal and clearing of existing vegetation. Erosion and sedimentation controls will be installed prior to vegetation removal. Refer to Section 3.4 for additional information regarding the project's erosion and sedimentation control plan. The project will not result in any direct impacts to wetland resource areas, or rare species habitat. The Applicant will seek an Order of Conditions for impacts to 100-foot buffer zone to Inland Bank and BVW to the west of the Lot 1 array.

Stormwater management improvements are detailed in Section 3, and in the Stormwater Report to be provided with the Notice of Intent. Additionally, a Stormwater Pollution Prevention Plan will be provided with the Notice of Intent application to the Egremont Conservation Commission for their review.

The project will not generate sewage, refuse or solid waste. Furthermore, Solar PV layers contain no liquids and are stable and solid. Based on this, the project will not result in adverse impacts to water quality.

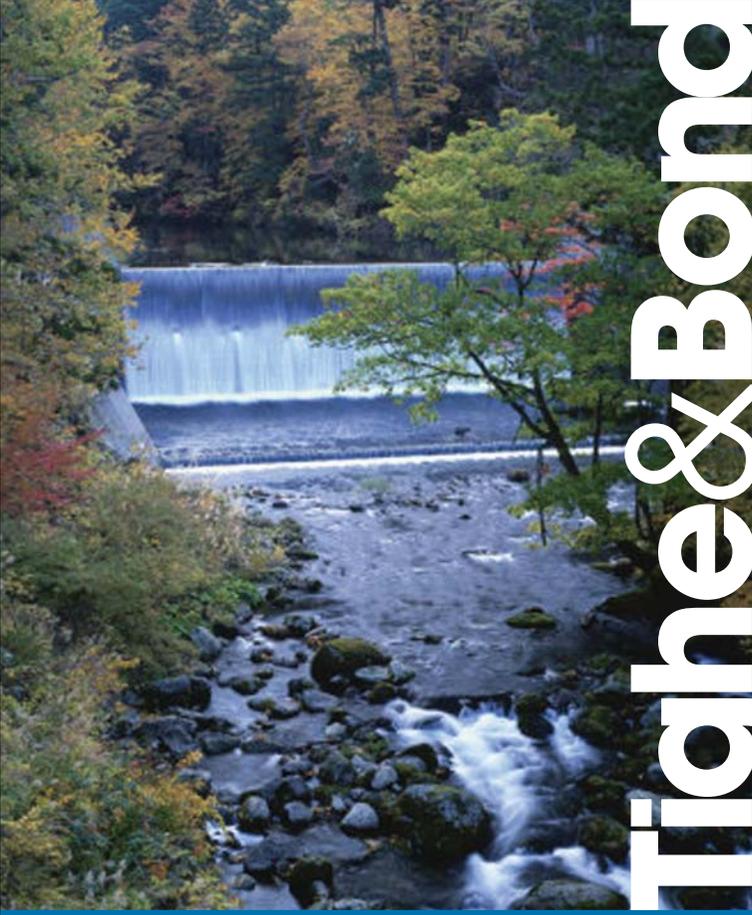
The project will be screened from view as it is set back from public ways and buffered on all sides by undeveloped land. Based on this, the project will not obstruct scenic views from publically accessible locations.

Traffic, Parking, and Pedestrian Circulation - The project will not result in vehicle trips other than those associated with system maintenance. While no striped parking spaces are planned, adequate area exists adjacent to the proposed arrays for occasional parking of maintenance vehicles.

Design - The project is consistent with adjacent land uses and the character of the area. As noted earlier, the site is generally bounded by undeveloped land and will be screened from view as it is set back from public ways. Based on this, the project will not adversely impact the aesthetic qualities of the Town.

Landscaping – Select removal of vegetation will occur to the north and northwest of Lot 1, however all existing vegetation between the outer fence and Pumpkin Hollow Road will remain. Additional landscaping is not proposed at this time.

Public Outreach – Per Section 6.2.3.1, notice of the required public hearing will be given by publication in a local newspaper, and by posting a notice in the Town Hall at least fourteen days prior to the start of the hearing. The Applicant has also provided the certified Assessor's abutters list for owners of land within three hundred (300) feet of the property line, and two addressed envelopes for each of the following parties of interest to the Planning Board: 1) all property owners within 300-feet of the subject parcel as they appear on the most recent tax list; 2) the Planning Board; and 3) the Planning Board of every abutting municipality.



Tighe & Bond

Section 5

Compliance with Site Plan Review Submittal Requirements

Pursuant to Section 5.6.5.1., all large-scale ground-mounted solar must undergo Site Plan Review by the Egremont Planning Board prior to construction, installation, or modification. The following compliance documentation is provided with this permit application in accordance with Section 5.6.5 (Site Plan Review for Solar Facilities) of the Town of Egremont Zoning Bylaw.

5.1 Site Plan Review Submittal Requirements

5.1.1 Site Plans

Project Site Plans that satisfy the requirements outlined in Section 5.6.5.3 are provided in Appendix B. Site Plans show the subject parcel, property lines, and existing roads, lot area, setbacks, open space, parking, and structure coverage for the project site. Site Plans demonstrate the proposed layout of the system, utility connections, and transformers, proposed changes to site grade, vegetation clearing and planting, exterior lighting, and screening vegetation or structures. Drainage features are shown on Sheets C-4, C-5, and C-6 of Appendix B. A Stormwater Report has been prepared for the project and will be submitted to the Town of Egremont Conservation Commission in support of a Notice of Intent. A One-line electrical diagram detailing the solar PV array, associated components, and electrical interconnection methods, with all NEC compliant disconnects and overcurrent devices is included in Appendix E.

5.1.2 Equipment Specifications

In accordance with Section 5.6.5.3.c, manufacturers' specifications of major system components (photovoltaic panels, racking, and inverters) are provided in Appendix C.

5.1.3 Contact Information

Per Sections 5.6.5.3.d and 5.6.5.3.e, contact information is provided below:

a. Proposed System Installer:

Industria Engineering, Inc.
Michael Lotti, Project Manager
34 Hayden Rowe, Suite 164
Hopkinton, MA 01748
Tel: 774-270-0834
mlotti@industriaeng.com

Installer license verification will be provided prior to obtaining a Building Permit.

b. Property Owner:

Lot 1

Peter Barrett
40 Locust Hill Road
Great Barrington, MA 01230
413-528-4507
Pbarrett76@gmail.com

Lot 4

Ben Barrett
35 Locust Hill Road
Great Barrington, MA 01230
413-644-0038
ben@berkshireveneer.com

c. Proponent:

Kearsarge Solar, LLC
c/o Andrew Bernstein
480 Pleasant Street, Suite B110
Watertown, MA 02472
Tel: 617-393-4222
Abernstein@kearsargeenergy.com

2. Representative:

Tighe & Bond, Inc.
Brian Huntley
53 Southampton Road
Westfield, MA 01085
Tel: 413-562-1600
BShuntley@tighebond.com

5.1.4 Operations and Maintenance Plan

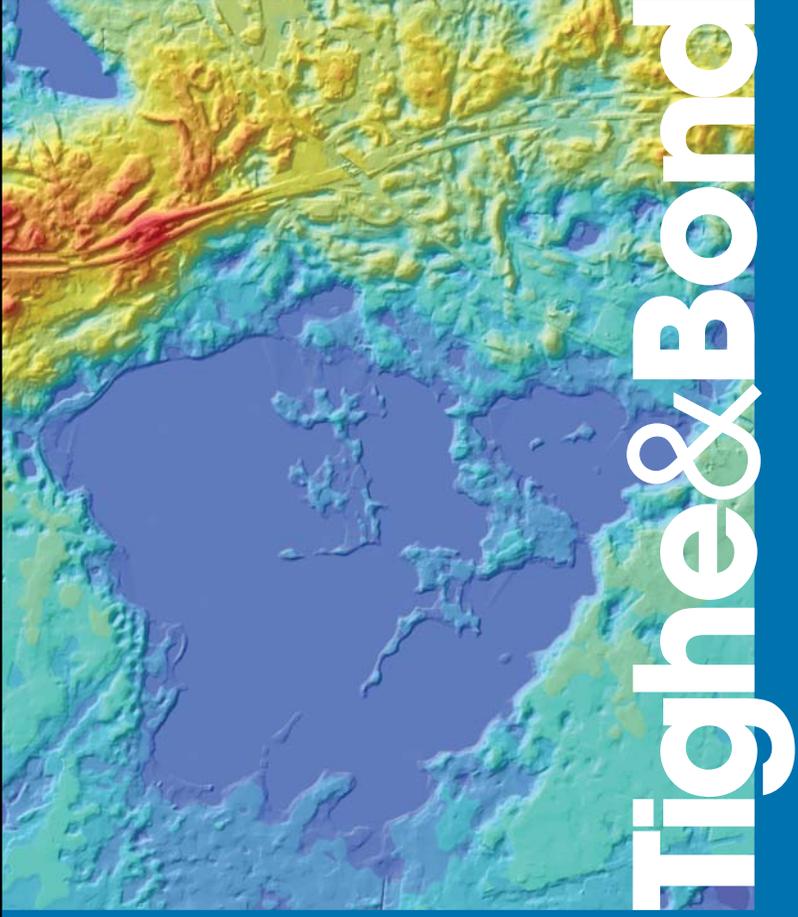
Pursuant to Section 5.6.5.3.c, an Operations and Maintenance Plan is included in Appendix D.

5.1.5 Proof of Liability Insurance

Proof of liability insurance that satisfies Section 5.6.5.3.g of the Zoning Bylaw has been provided. Refer to Appendix G for documentation.

5.1.6 Financial Surety

In accordance with Section 5.6.5.3.h of the Zoning Bylaw, an estimate of the decommissioning cost for the project and a plan for decommissioning activities has been provided in Appendix F. Prior to obtaining a Certificate of Occupancy, Kearsarge will provide a form of surety in the amount of \$28,660 to cover decommissioning costs in the event that the Town must remove the installation and remediate the landscape.



Section 6

Abutter Notification

A list of property owners and their addresses for all parcels of land within 300 feet of the project site has been obtained from the Town of Egremont Assessors Department. Per the Egremont Zoning Bylaw Section 6.2.3, it is anticipated that the Town will complete the abutter notification and legal ad process. The list of abutters is provided in Appendix H. Stamped A10-sized envelopes representing twice the number of listed abutters have also been provided with the application to the Planning Board.



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Section 7 Other Required Approvals

7.1 Local Approvals

7.1.1 Town of Egremont Permits

The following local permits will be sought from the Town of Egremont:

- Site Plan Review – Planning Board
- Special Permit – Planning Board
- Order of Conditions – Conservation Commission
- Building permit
- Electrical Permit

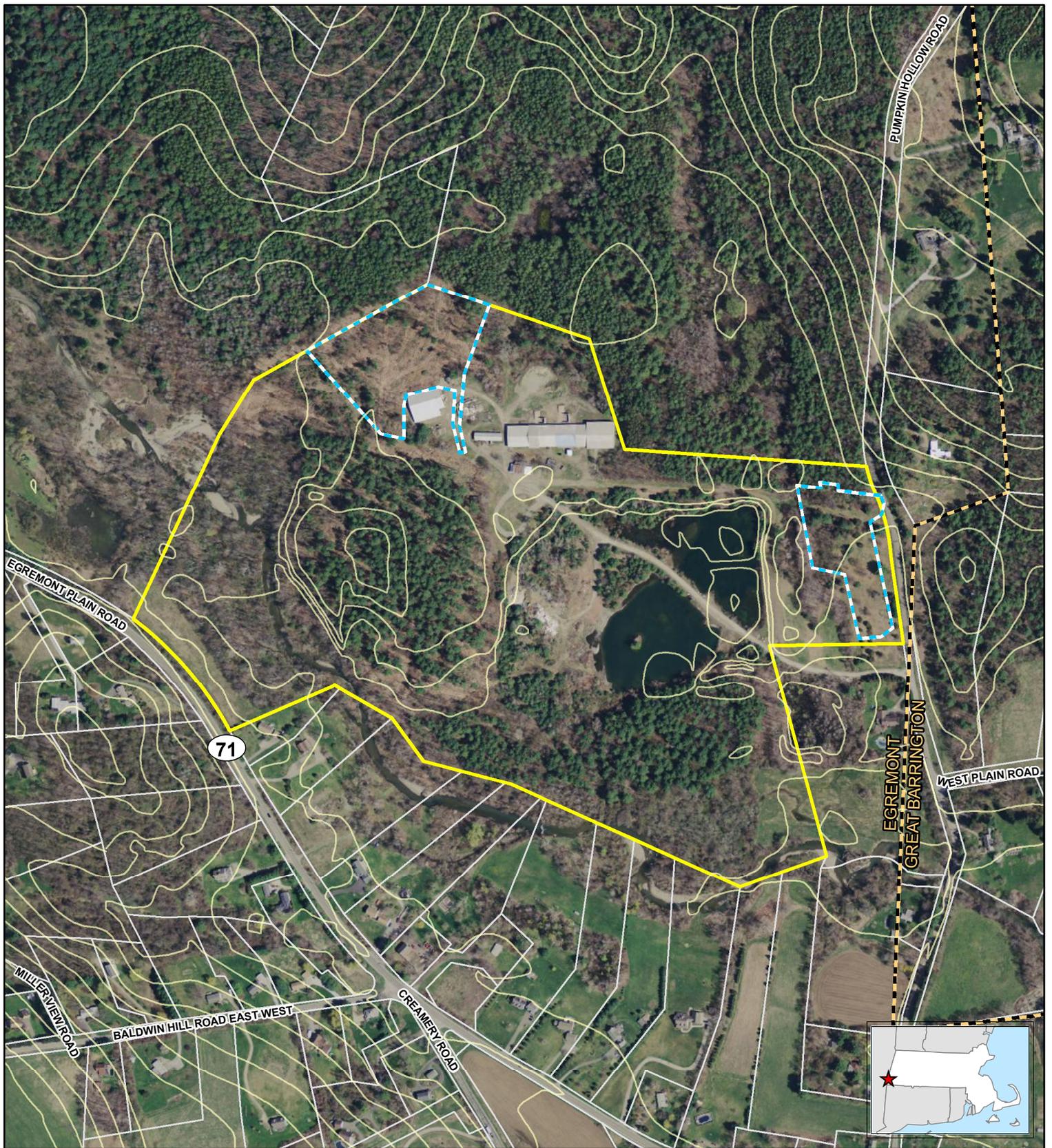
7.2 Federal Approvals

7.1.2 NPDES Construction General Permit

The Environmental Protection Agency (EPA) issues National Pollutant Discharge Elimination System (NPDES) Construction General Permits (CGP) as a part of the effort to minimize detrimental runoff caused by the clearing, grading, and excavating or general construction activities on construction sites. Since the land disturbance will exceed the CGP impact threshold of more than one acre of land, a NPDES CGP permit is required. Prior to construction, a CGP permit will be obtained and a Stormwater Pollution Prevention Plan (SWPPP) will be submitted to the EPA.



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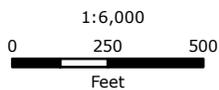


Legend

- 10 ft Contours
- Approximate Location of Limit of Work
- Site Parcel
- Parcel Boundary



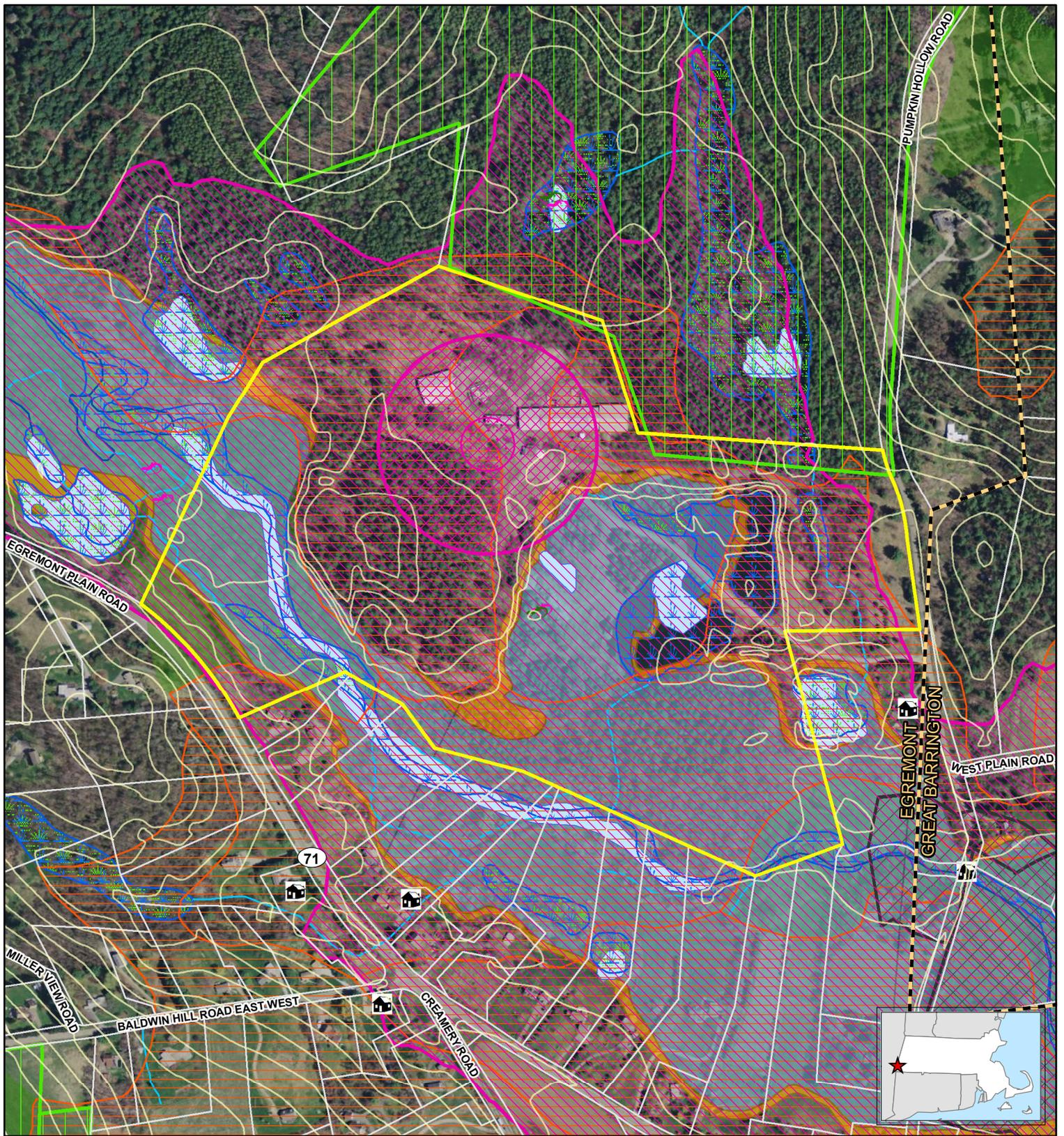
Based on MassGIS Color Orthophotography (2014),
Egremont (2012) and Great Barrington (2017) Parcels Downloaded from MassGIS.



**FIGURE 1
ORTHOGRAPH**

29 Pumpkin Hollow Road
Egremont, Massachusetts

October 2016



- | | | |
|--|--|---|
| <ul style="list-style-type: none"> 10 ft Contours NHESP Certified Vernal Pools NHESP Potential Vernal Pools Site Parcel Parcel Boundary Historic Site Powerline Pipeline | <ul style="list-style-type: none"> Historic Area Protected and Recreational Open Space DEP Approved Wellhead Protection Area (Zone I) DEP Approved Wellhead Protection Area (Zone II) DEP Interim Wellhead Protection Area (IWPA) Area of Critical Environmental Concern (ACEC) NHESP Priority Habitats for Rare Species NHESP Estimated Habitats for Rare Wildlife Farmland of Statewide Importance Hydrologic Connections Stream/Intermittent Stream | <ul style="list-style-type: none"> NWI Wetlands (USFWS) Inland Wetlands (MassGIS) Coastal Wetlands (MassGIS) Public Surface Water Supply (PSWS) Water Bodies 100 Year Flood Zone 500 Year Flood Zone Prime Farmland Town Boundary County Boundary |
|--|--|---|

Based on MassGIS Color Orthophotography (2014)
 Resource data provided by MassGIS, NWI Wetlands: USFWS.
 Prime Farmland/Farmland of Statewide Importance: U.S.
 Department of Agriculture Natural Resources Conservation Service.
 Egremont (2012) and Great Barrington (2017) Parcels Downloaded from MassGIS.

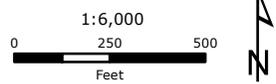


FIGURE 2
PRIORITY RESOURCE MAP

29 Pumpkin Hollow Road
Egremont, Massachusetts

Data source: Office of Geographic Information (MassGIS), Commonwealth of Massachusetts, MassIT)
Executive Office of Environmental Affairs.
Data valid as of September 2016.

September 2016



Tighe & Bond

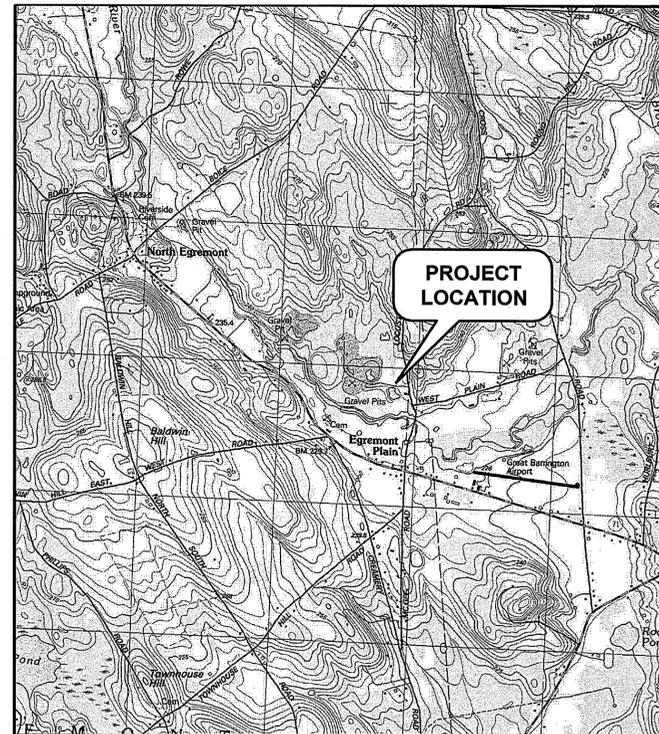
PUMPKIN HOLLOW SOLAR FACILITY

PERMIT APPLICATION SET

EGREMONT, MASSACHUSETTS

OCTOBER 2016

SHEET NO.	SHEET TITLE
	COVER SHEET
G-001	GENERAL NOTES AND DETAILS
G-002	DETAILS
C-001	EXISTING CONDITIONS - OVERALL
C-002	EXISTING CONDITIONS & DEMOLITION - LOT 1
C-003	EXISTING CONDITIONS & DEMOLITION - LOT 4
C-004	PROPOSED CONDITIONS - OVERALL
C-005	PROPOSED CONDITIONS - LOT 1
C-006	PROPOSED CONDITIONS - LOT 4



SCALE: 1" = 1,000'

DEVELOPER:

KEARSARGE SOLAR, LLC
480 PLEASANT ST
SUITE B110
WATERTOWN, MA 02472

LAND OWNER - LOT 1

WILLIAM F. BARRETT III, MARGERY
BARRETT, PETER S. BARRETT, & BENJAMIN C.
BARRETT
40 LOCUST ROAD
GREAT BARRINGTON, MA 01230

LAND OWNER - LOT 4

BENJAMIN C. BARRETT
40 LOCUST ROAD
GREAT BARRINGTON, MA 01230

ENGINEER:

TIGHE & BOND
53 SOUTHAMPTON ROAD
WESTFIELD, MA 01085



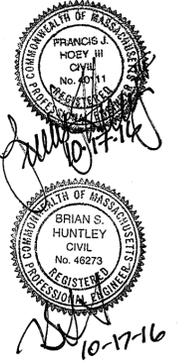
Tighe & Bond

www.tighebond.com

PERMIT SET - NOT FOR CONSTRUCTION

COMPLETE SET 9 SHEETS

PERMIT SET - NOT FOR CONSTRUCTION



Pumpkin Hollow Solar Project

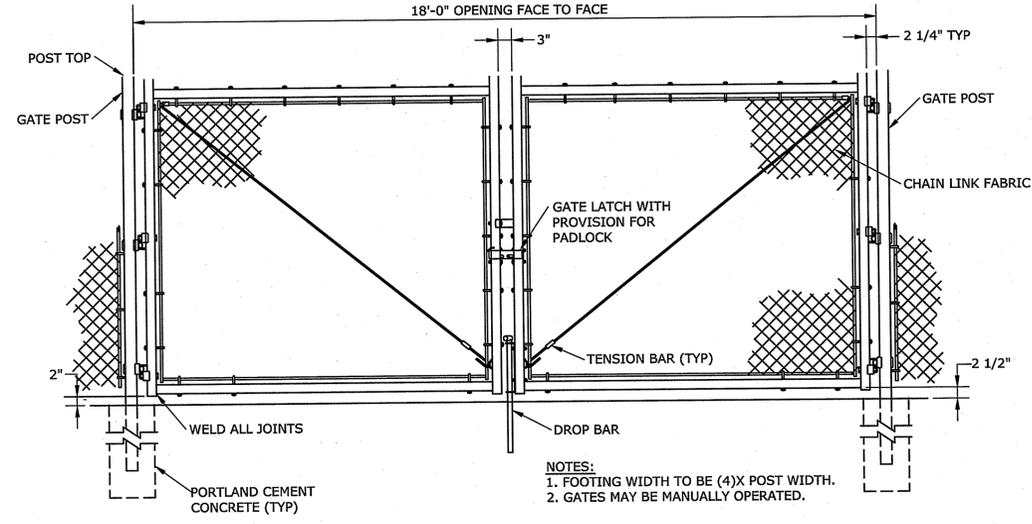
Kearsarge Energy, LLC

Egremont, Massachusetts

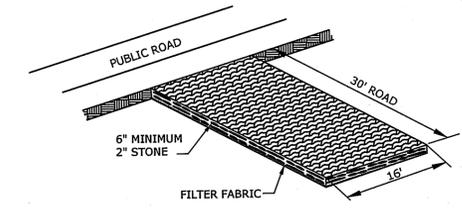
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LEGEND

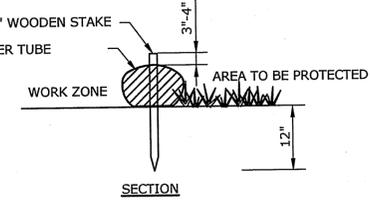
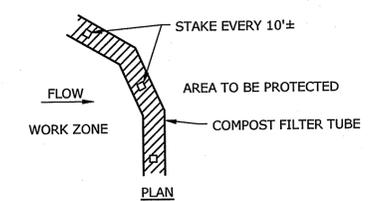
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- WETLAND RESOURCE AREA FLAG
- UTILITY POLE
- CATCH BASIN
- PROPERTY LINE
- EXISTING EASEMENT
- EXISTING CHAIN LINK FENCE
- PROPOSED CHAIN LINK FENCE
- WETLAND LIMIT LINE
- EROSION CONTROL
- LIMIT OF WORK
- EXISTING TREE LINE
- EXISTING U.G. ELECTRIC LINE
- EXISTING OVERHEAD ELECTRIC LINE
- IWPA PROTECTION AREA
- AREA OF PROPOSED TREE CLEARING



DOUBLE SWING GATE
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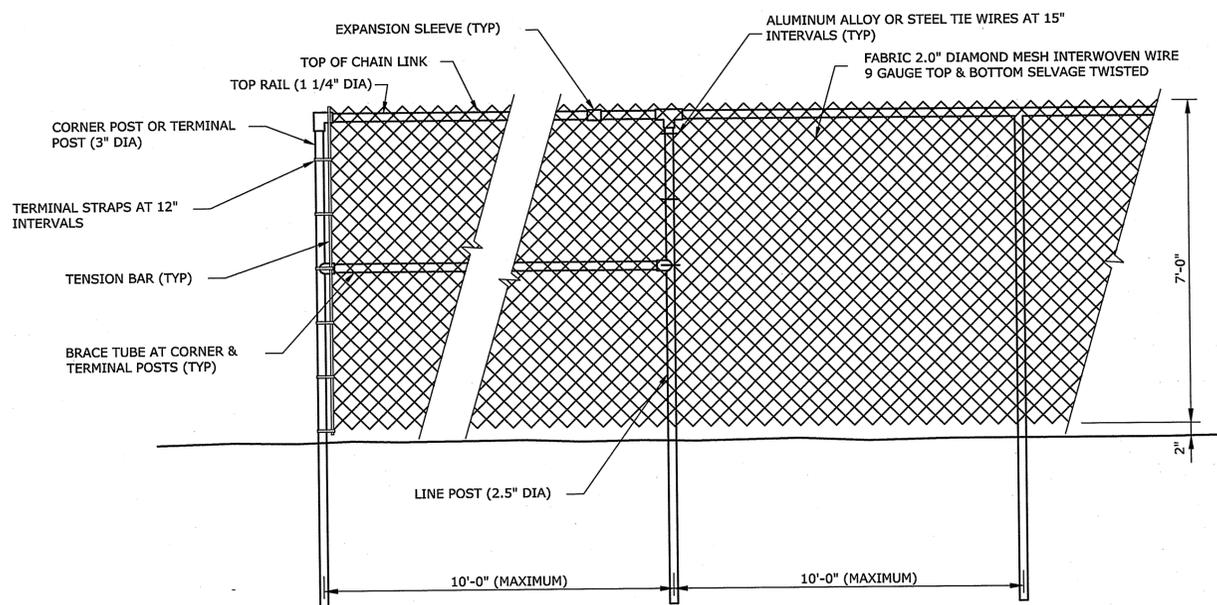
CONSTRUCTION ENTRY
NO SCALE



NOTES:

1. TUBES FOR COMPOST FILTERS SHALL BE JUTE MESH OR APPROVED BIODEGRADABLE MATERIAL.
2. TAMP TUBES IN PLACE TO ENSURE GOOD CONTACT WITH SOIL SURFACE.
3. PROVIDE 3' MINIMUM OVERLAP AT ENDS OF TUBES TO JOIN IN A CONTINUOUS BARRIER AND MINIMIZE UNIMPEDED FLOW.
4. COMPOST MATERIAL TO BE DISPERSED ON SITE WITHIN LIMITS OF WORK, AS DIRECTED.
5. INSTALL TUBES ALONG CONTOURS AND PERPENDICULAR TO SHEET OR CONCENTRATED FLOW.
6. DO NOT INSTALL IN PERENNIAL, EPHEMERAL OR INTERMITTENT STREAMS.
7. CONFIGURE TUBES AROUND EXISTING SITE FEATURES TO MINIMIZE SITE DISTURBANCE AND MAXIMIZE CAPTURE AREA OF STORMWATER RUN-OFF.

EROSION CONTROL BARRIER
NO SCALE



CHAIN LINK FENCE DETAIL
NO SCALE

CHAINLINK FENCING NOTES:

1. UNLESS OTHERWISE NOTED ON THE SITE PLANS, ALL CHAINLINK FENCING COMPONENTS SHALL HAVE A HOT DIPPED GALVANIZED FINISH. ANY CHIPS IN THE GALVANIZED FINISH DUE TO SITE INSTALLATION SHOULD BE MINIMIZED AND REPAIRED WITH INDUSTRIAL GRADE PAINT ON GALVANIZED PAINT. ALL CUT ENDS ARE TO BE FINISHED WITH INDUSTRIAL GRADE PAINT ON GALVANIZED FINISH.
2. CHAINLINK FABRIC SHALL BE MADE OF 9 GAUGE STEEL WIRE, 2" MESH SIZE, AND HOT DIPPED GALVANIZED PRIOR TO WEAVING. ONE EDGE OF THE FABRIC SHALL BE FINISHED WITH A SELVAGE TWIST AND THE OTHER WITH A SELVAGE KNUCKLE.
3. ALL POSTS ARE TO BE PLUMB IN ALL DIRECTIONS.
4. LINE POSTS MAY BE HAMMER DRIVEN. IF HAMMER DRIVEN, POST END MUST BE CUT TO FINAL HEIGHT AFTER DRIVING IS COMPLETE. CUT END IS TO BE CUT SQUARE AND FREE OF BENDS, MUSHROOMING, AND BURRS. CUT END TO BE TREATED AS PER NOTE #1.
5. MAXIMUM POST SPACING BASED ON MAXIMUM WIND SPEED OF 90MPH WITH CLASS B EXPOSURE, MODERATE ICE LOADING, AND COMPONENT SIZES SHOWN. MAXIMUM POST SPACING SHALL NOT BE EXCEEDED.
6. LINE & TERMINAL POSTS, BRACE TUBES, TOP RAILS, & GATE POSTS SHALL ALL BE SCHEDULE 40 PIPE. REFERENCED DIAMETER IS NOMINAL.

GENERAL NOTES:

1. FIELD VERIFY EXISTING CONDITIONS PRIOR TO CONSTRUCTION. IF FIELD CONDITIONS ARE OBSERVED THAT SIGNIFICANTLY VARY FROM THOSE SHOWN ON THESE PLANS, IMMEDIATELY NOTIFY THE ENGINEER FOR RESOLUTION OF THE CONFLICTING INFORMATION.
2. COMPLY WITH OSHA'S LATEST STANDARDS. PROVIDE ALL REQUIREMENTS OF OSHA'S EXCAVATION STANDARDS, INCLUDING BUT NOT LIMITED TO PROVISION FOR A COMPETENT PERSON ON SITE AND ALL DOCUMENTATION REQUIRING CERTIFICATION BY A PROFESSIONAL ENGINEER.
3. MAINTAIN ALL UTILITIES IN THE AREAS UNDER CONSTRUCTION. LEAVE ALL PIPES, SWALES AND STRUCTURES WITHIN THE LIMIT OF THIS CONTRACT IN CLEAN AND OPERABLE CONDITION AT THE COMPLETION OF THE WORK. TAKE ALL NECESSARY PRECAUTIONS TO PREVENT SAND AND SILT FROM DISTURBED AREAS FROM ENTERING THE SYSTEM. CONTRACTOR IS RESPONSIBLE FOR DAMAGE SUSTAINED TO ANY EXISTING UTILITIES AND WILL MAKE REPAIRS THAT COMPLY WITH REQUIREMENTS OF OWNER OR RESPECTIVE UTILITY COMPANY.
4. LOAM AND SEED ALL DISTURBED AREAS UNLESS OTHERWISE SPECIFIED.
5. THE PROPOSED LAYOUT INCLUDED HEREIN IS SCHEMATIC. FINAL PANEL LAYOUT DURING CONSTRUCTION SHALL BE BY THE CONTRACTOR USING GPS COORDINATES.
6. THE PROPOSED PROJECT WILL BE SUBJECT TO AN ORDER OF CONDITIONS BY THE EGREMONT CONSERVATION COMMISSION.
7. RACK ARRANGEMENT AND RACK SPACING WAS PROVIDED BY INNOVATIVE ENGINEERING SOLUTIONS AND MODIFIED AS NECESSARY BASED ON SITE CONDITIONS IDENTIFIED DURING THE SURVEY.
8. ELECTRICAL ENGINEERING AND INTERCONNECTION DESIGN BY OTHERS.

PLAN REFERENCES:

1. EXISTING CONDITIONS INFORMATION USED ON THIS PROJECT WAS TAKEN FROM A PLAN OF TITLED "PRELIMINARY PLAN" DATED 11/8/2010 AND SURVEYED BY FORESIGHT LAND SERVICES
2. WETLAND RESOURCE AREAS WERE DELINEATED BY FORESIGHT LAND SERVICES ON DECEMBER 16,17,21,22 & 23, 2009.

EROSION CONTROL NOTES:

1. INSTALL ALL EROSION CONTROL MEASURES SHOWN, SPECIFIED AND REQUIRED BY THE ENGINEER PRIOR TO ANY CONSTRUCTION OR IMMEDIATELY UPON REQUEST. MAINTAIN ALL SUCH CONTROL MEASURES UNTIL FINAL SURFACE TREATMENTS ARE IN PLACE AND/OR UNTIL PERMANENT VEGETATION IS ESTABLISHED.
2. MARK WORK LIMIT LINE(S) PRIOR TO STARTING WORK. DO NOT DISTURB VEGETATION AND TOPSOIL BEYOND THE PROPOSED LIMIT LINE. COORDINATE WITH THE ENGINEER FOR THE LOCATIONS FOR THE TEMPORARY STOCKPILING OF TOPSOIL DURING CONSTRUCTION.
3. FINE GRADE AND IMMEDIATELY SEED ALL SIDE SLOPES, SHOULDER AREAS, AND DISTURBED VEGETATED AREAS. ALL GRADING TO BE A MAXIMUM SLOPE OF 3:1, COMPACTED, AND STABILIZED.
4. REMOVE AND DISPOSE OF ALL SILT TRAPPED AT BARRIERS IN UPLAND AREAS OUTSIDE BUFFER ZONES. REMOVE MATERIALS DEPOSITED IN ANY TEMPORARY SETTLING BASIN AT THE COMPLETION OF THE PROJECT. RESTORE ALL DISTURBED AREAS TO PRE-CONSTRUCTION CONDITIONS.
5. REMOVE ALL SEDIMENTS FROM SILT LADEN WATER PRIOR TO RELEASE DOWNSTREAM OF THE DEWATERED AREAS.
6. DEWATER AS NECESSARY TO KEEP CONSTRUCTION AREAS FREE OF WATER, DISCHARGE WATER FROM DEWATERING TO APPROPRIATE LOCATION AND WITHOUT SEDIMENTATION.
7. REMOVE ALL SEDIMENT TRACKED ON PUBLIC RIGHT-OF-WAYS AT THE END OF EACH DAY.

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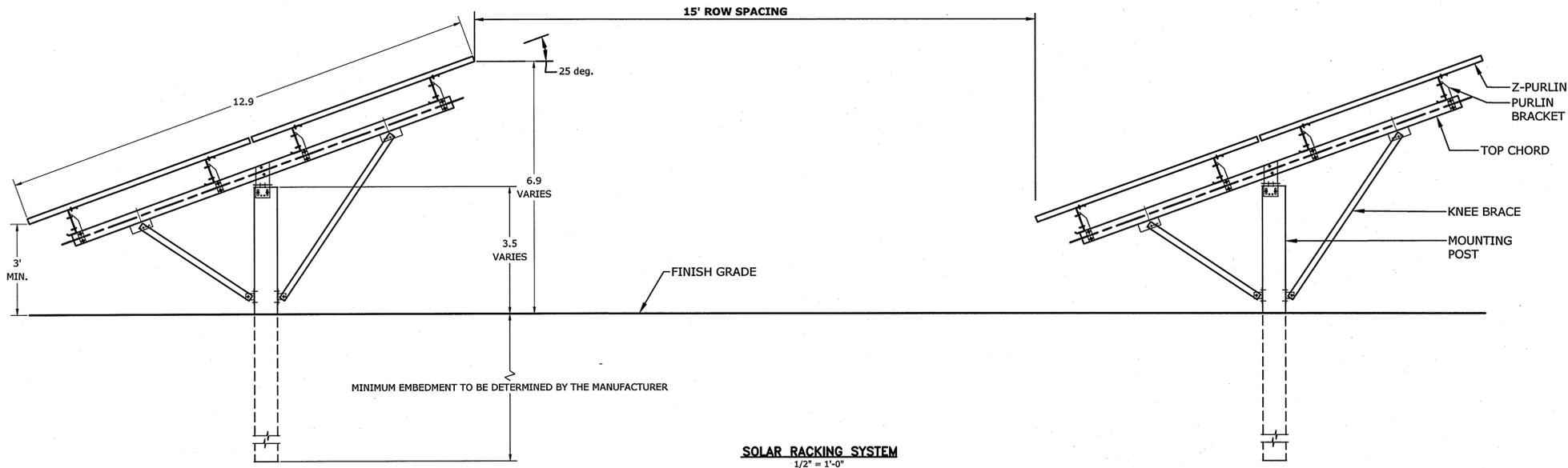
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DATE:	10/11/2016	
FILE:		
DRAWN BY:	TJG	
CHECKED:	BA / BSH	
APPROVED:	FJH	

GENERAL NOTES & DETAILS

SCALE: AS NOTED

SHEET G-001

PERMIT SET - NOT FOR CONSTRUCTION



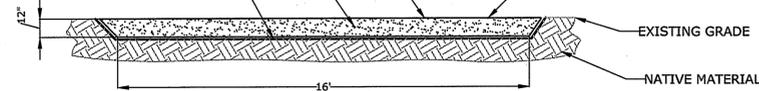
SOLAR RACKING SYSTEM
1/2" = 1'-0"

INSTALL 12" OF AGGREGATE ROAD BASE MATERIAL (MASS DOT M1.03.1) COMPACT TO GREATER THAN 90% DRY DENSITY AND VERIFY

MATCH EXISTING GRADE SO ROADWAY DOES NOT IMPEDE STORMWATER FLOW

INSTALL WOVEN GEOTEXTILE BELOW ROAD SURFACE

REMOVE VEGETATION AND NATIVE SOIL FROM ROAD AREA PRIOR TO INSTALLING GEOTEXTILE



ROADWAY NOTES:

- ROAD SURFACE IS TO BE GRADED SUCH THAT NO PONDING OF WATER OCCURS WITHIN THE LIMITS OF THE ROAD SURFACE.

TYPICAL ACCESS ROAD SECTION
NO SCALE



Pumpkin Hollow Solar Project

Kearsarge Energy, LLC

Egremont, Massachusetts

VERIFY SCALE
BAR IS 1 INCH ON ORIGINAL DRAWING
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

MARK	DATE	DESCRIPTION

PROJECT NO:	K00923
DATE:	10/11/2016
FILE:	
DRAWN BY:	TJG
CHECKED:	BA / BSH
APPROVED:	FJH
DETAILS	
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Pumpkin Hollow Solar Project

Kearsarge Energy, LLC

Egremont, Massachusetts

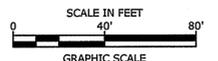
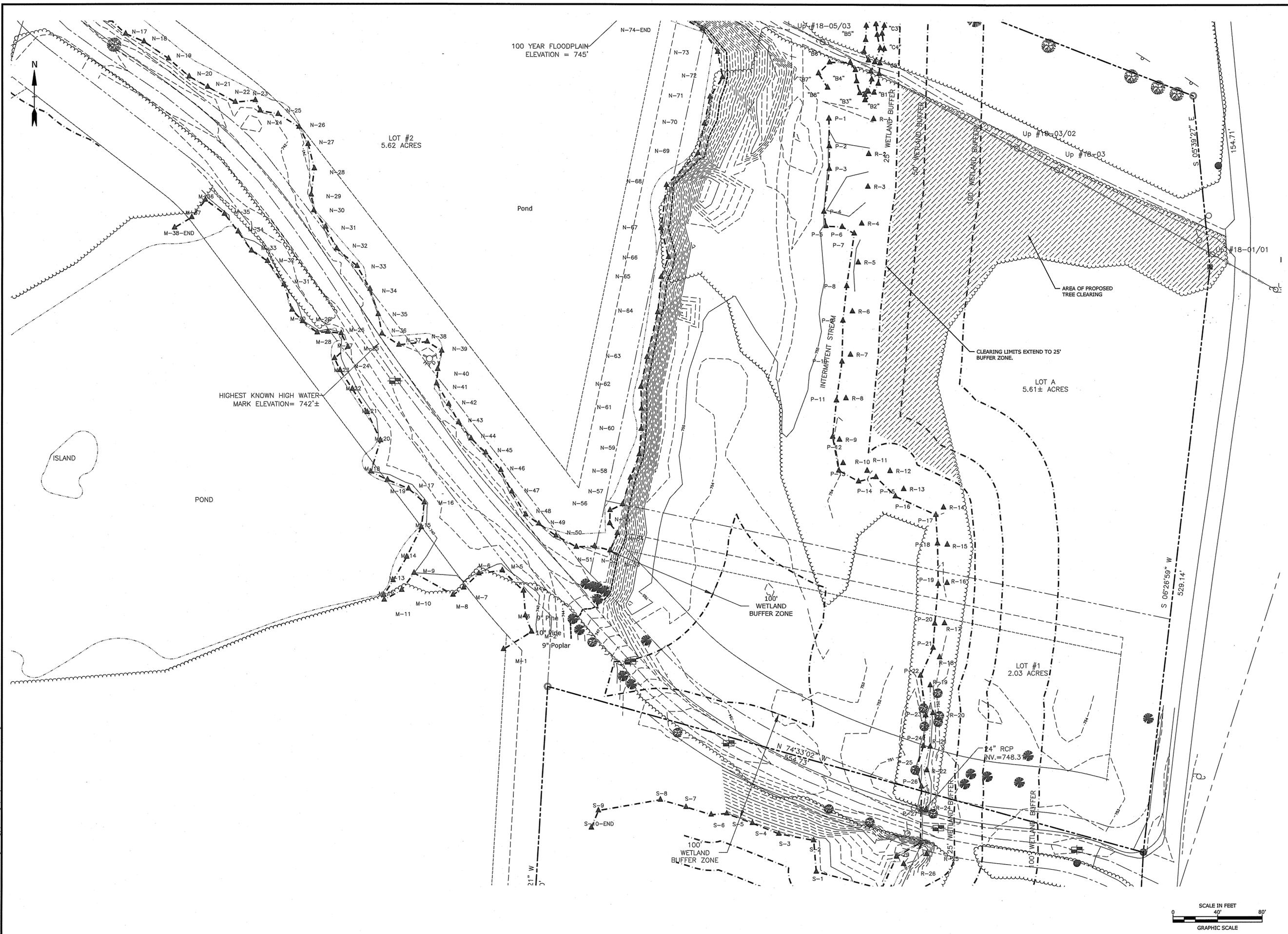
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PROJECT NO:		K00923
DATE:		10/11/2016
FILE:		
DRAWN BY:		TJG
CHECKED:		BA / BSH
APPROVED:		FJH

EXISTING CONDITIONS & DEMOLITION-LOT 1

SCALE: 1" = 40'

SHEET C-002



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10-7-16

Pumpkin Hollow Solar Project

Kearsarge Energy, LLC

Egremont, Massachusetts

VERIFY SCALE

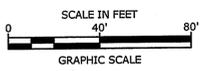
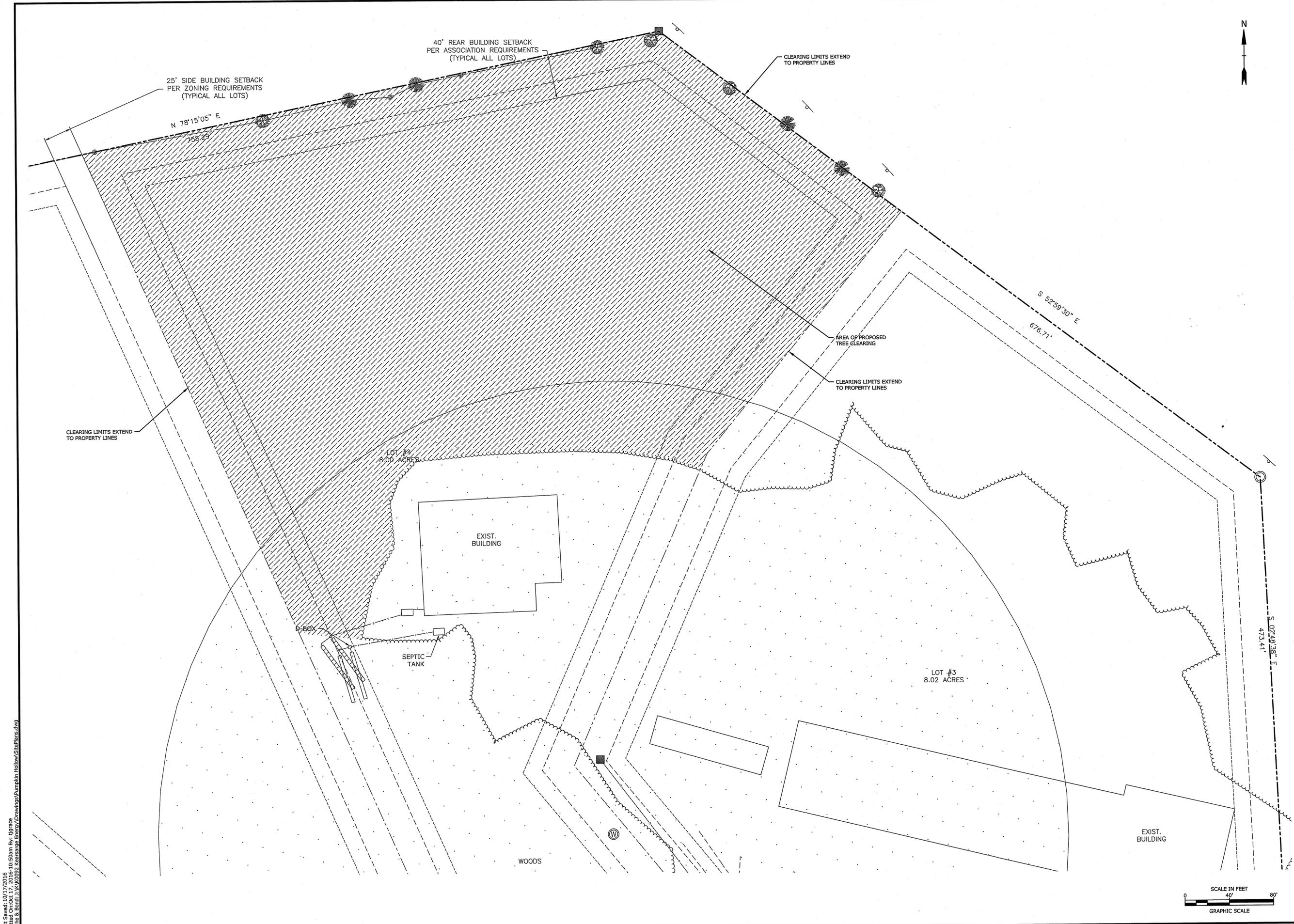
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EXISTING CONDITIONS & DEMOLITION - LOT 4

SCALE: 1" = 40'

SHEET C-003



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PERMIT SET - NOT FOR CONSTRUCTION



Pumpkin Hollow Solar Project

Kearsarge Energy, LLC

Egremont, Massachusetts

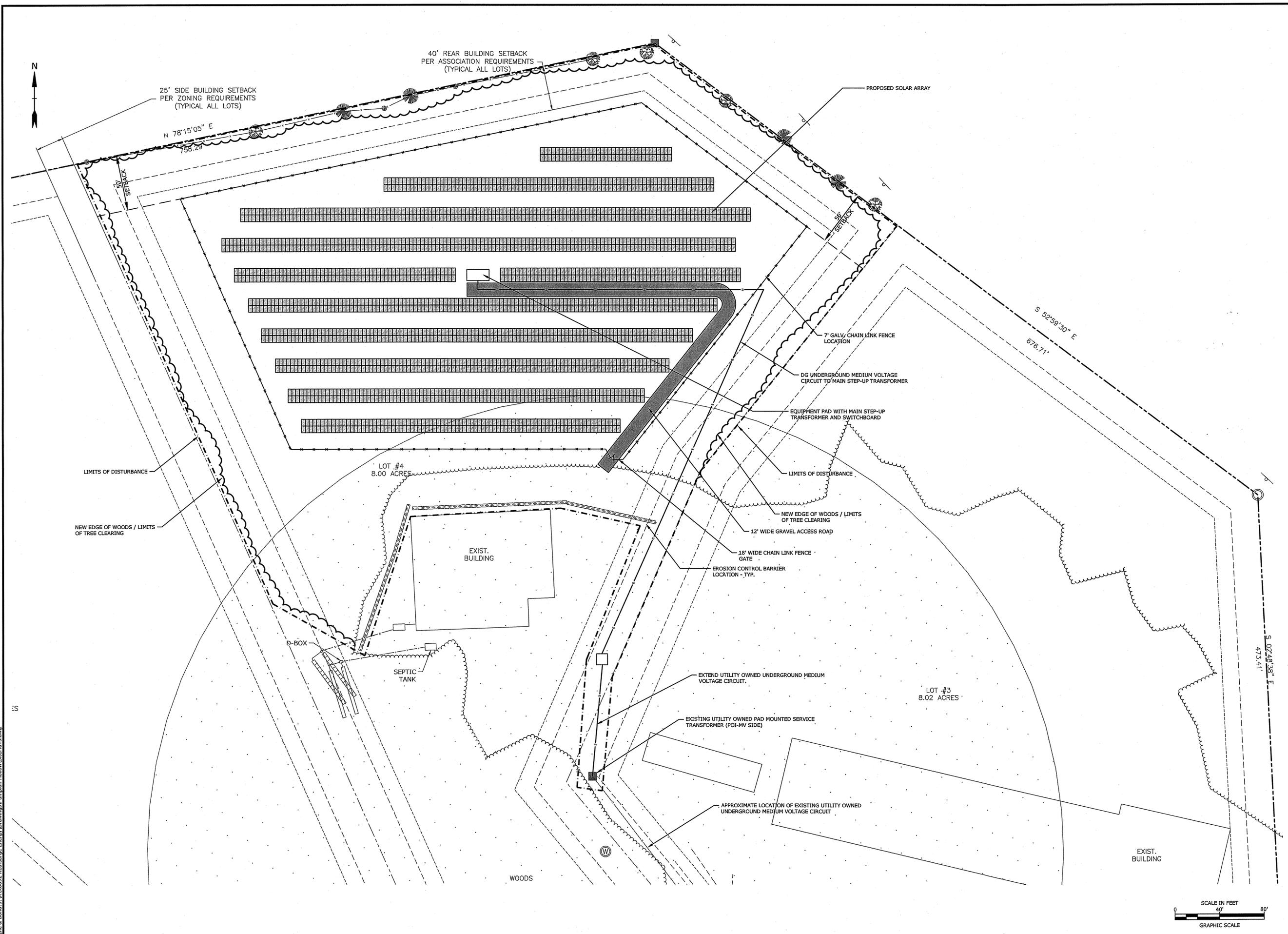
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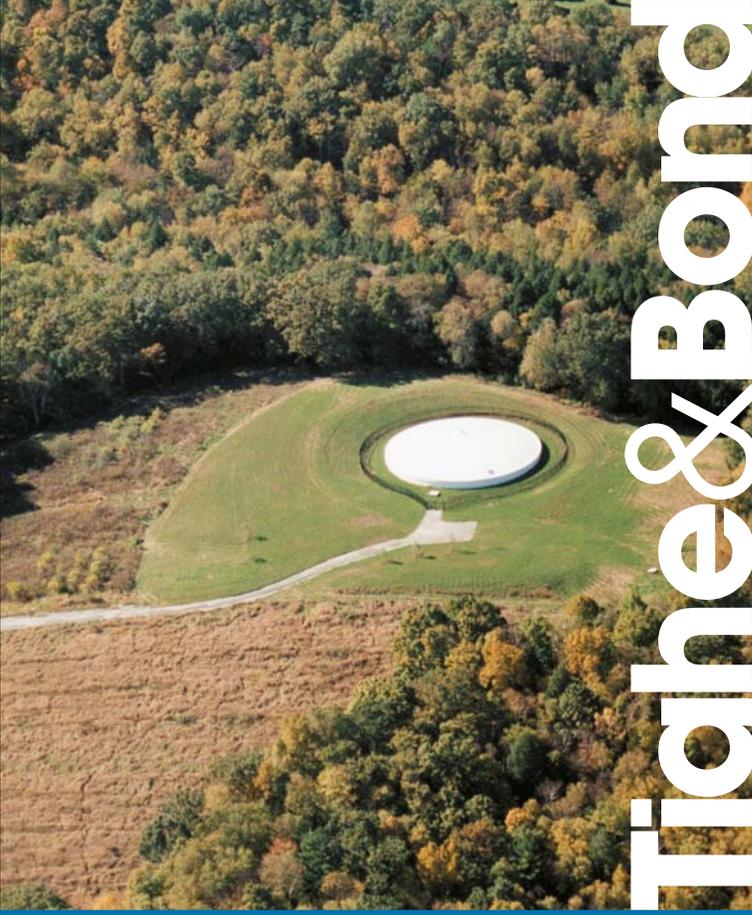
PROPOSED CONDITIONS-LOT 4

SCALE: 1" = 40'

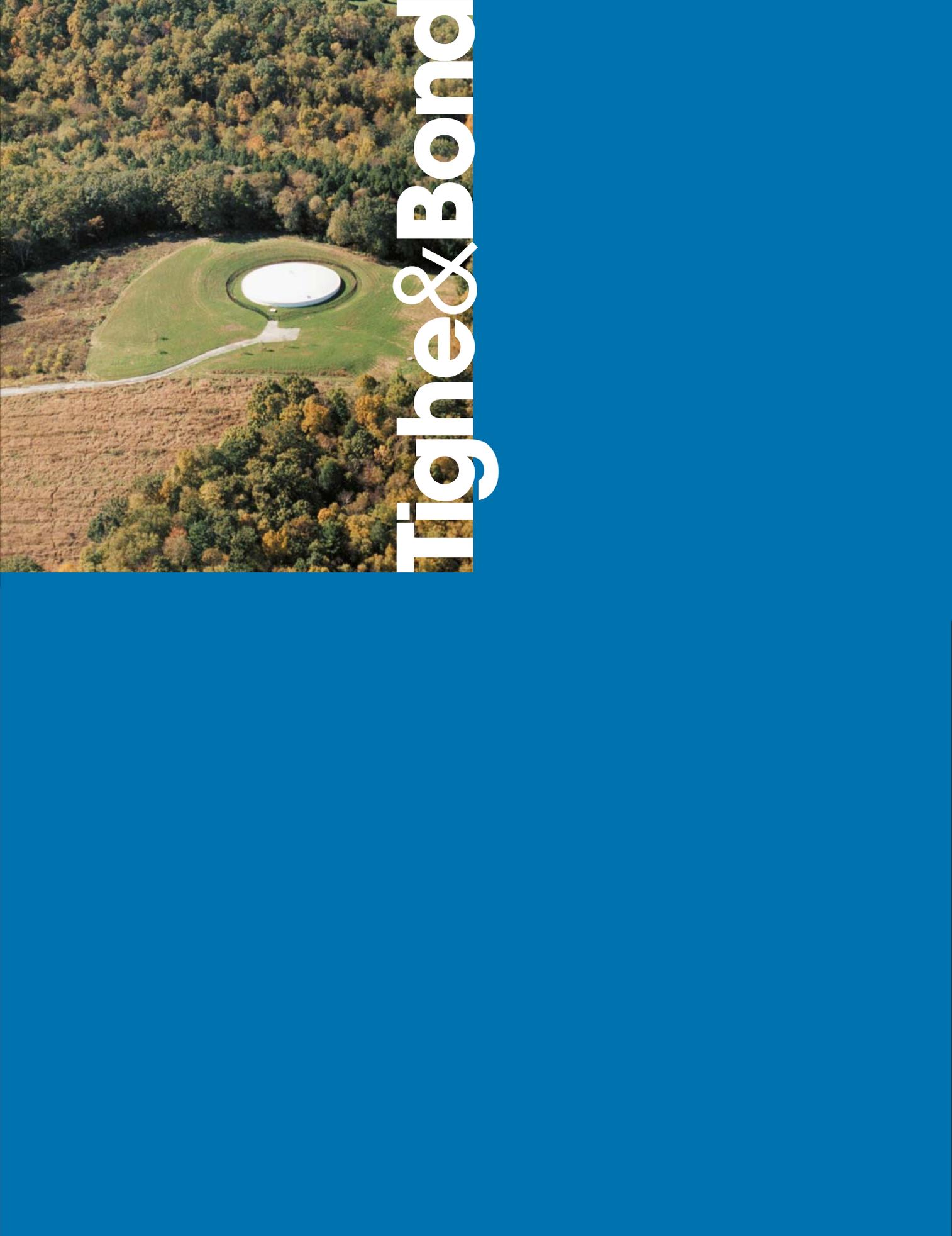
SHEET C-006



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 Tighe & Bond; jkt; K00923; Kearsarge Energy; Egremont, Massachusetts



Tighe & Bond



PHOTOVOLTAIC MODULES

EAGLE 72

310-330 Watt

POLYCRYSTALLINE MODULE

*1500V Available

Positive power tolerance of 0/+3%



KEY FEATURES



High Voltage

1000V standard; 1500V option lowers BOS costs and yields better LCOE



Innovative Solar Cells

Four busbar cell technology improves module efficiency



PID-Free

World's 1st PID-Free module at 85°C/85%RH



Low-Light Performance

New glass technology improves light absorption and retention



Strength and Durability

Certified for high snow (5400Pa) and wind (2400Pa) loads



Weather Resistance

Certified for salt mist and ammonia resistance

- ISO9001:2008 Quality Standards
- ISO14001:2004 Environmental Standards
- OHSAS18001 Occupational Health & Safety Standards

Nomenclature:

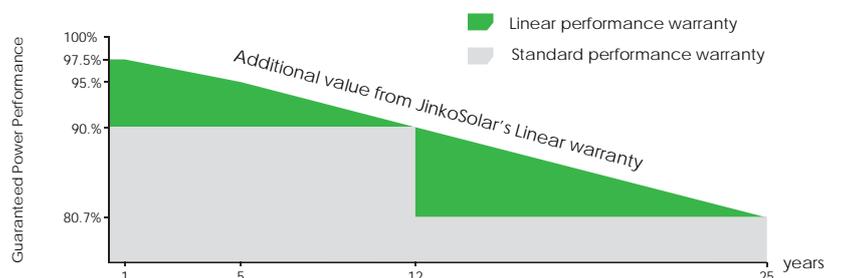
JKM320PP - 72 -

Code	Certification
null	1000V
V	1500V

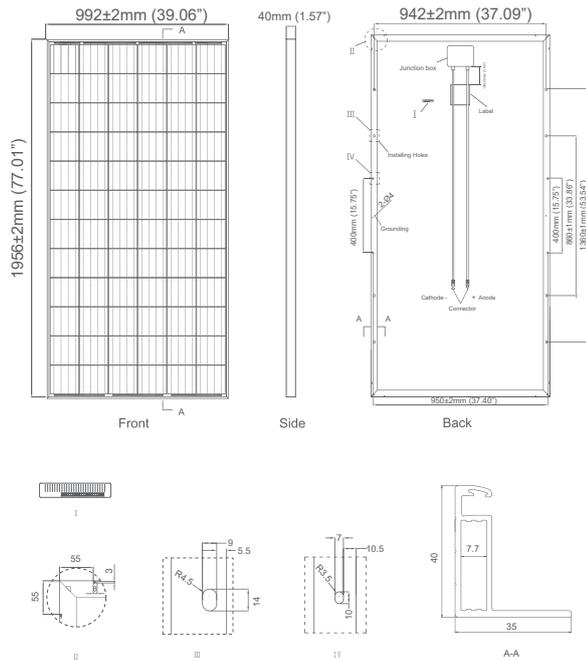


LINEAR PERFORMANCE WARRANTY

10 Year Product Warranty • 25 Year Linear Power Warranty



Engineering Drawings



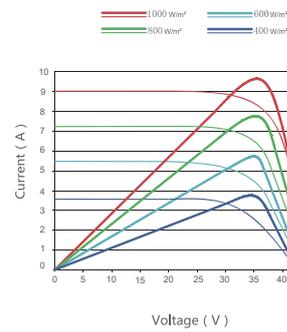
Packaging Configuration

(Two boxes = One pallet)

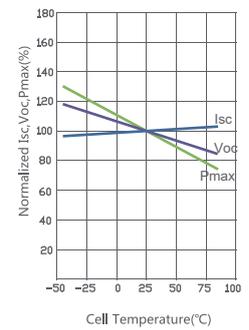
25pcs/ box, 50pcs/pallet, 600pcs/40'HQ Container

Electrical Performance & Temperature Dependence

Current-Voltage & Power-Voltage Curves (310W)



Temperature Dependence of Isc, Voc, Pmax



Mechanical Characteristics

Cell Type	Poly-crystalline 156×156mm (6 inch)
No. of cells	72 (6×12)
Dimensions	1956×992×40mm (64.97×39.06×1.57 inch)
Weight	26.5 kg (58.4 lbs.)
Front Glass	4.0mm, High Transmission, Low Iron, Tempered Glass
Frame	Anodized Aluminium Alloy
Junction Box	IP67 Rated
Output Cables	12 AWG, Length:1200mm (47.24 inch)
Fire Type	Type 1

SPECIFICATIONS

Module Type	JKM310PP-V		JKM315PP-V		JKM320PP-V		JKM325PP-V		JKM330PP-V	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power (Pmax)	310Wp	231Wp	315Wp	235Wp	320Wp	238Wp	325Wp	242Wp	330Wp	246Wp
Maximum Power Voltage (Vmp)	37.0V	33.9V	37.2V	34.3V	37.4V	34.7V	37.6V	35.0V	37.8V	35.3V
Maximum Power Current (Imp)	8.38A	6.81A	8.48A	6.84A	8.56A	6.86A	8.66A	6.91A	8.74A	6.97A
Open-circuit Voltage (Voc)	45.9V	42.7V	46.2V	43.2V	46.4V	43.7V	46.7V	44.0V	46.9V	44.2V
Short-circuit Current (Isc)	8.96A	7.26A	9.01A	7.29A	9.05A	7.30A	9.1A	7.34A	9.14A	7.38A
Module Efficiency STC (%)	15.98%		16.23%		16.49%		16.75%		17.01%	
Operating Temperature(°C)	-40°C~+85°C									
Maximum system voltage	1500VDC (UL)									
Maximum series fuse rating	15A									
Power tolerance	0~+3%									
Temperature coefficients of Pmax	-0.40%/°C									
Temperature coefficients of Voc	-0.30%/°C									
Temperature coefficients of Isc	0.06%/°C									
Nominal operating cell temperature (NOCT)	45±2°C									

STC: Irradiance 1000W/m²

Cell Temperature 25°C

AM=1.5

NOCT: Irradiance 800W/m²

Ambient Temperature 20°C

AM=1.5

Wind Speed 1m/s

* Power measurement tolerance: ± 3%

CAUTION: READ SAFETY AND INSTALLATION INSTRUCTIONS BEFORE USING THE PRODUCT.

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US-MKT-330PP-V_v1.0_rev2016

INVERTERS



PVI 14TL
PVI 20TL
PVI 23TL
PVI 28TL
PVI 36TL

FEATURES

- 600 or 1000 VDC
- Best in class efficiency
- Touch-safe fuses
- Dual & wide MPP tracking zones
- Modbus communications
- Integrated DC fused string combiner
- DC arc-fault protection
- PVI 36TL - HECO and Rule 21 compliant

OPTIONS

- Web-based monitoring
- Shade cover
- DC/AC disconnect covers
- Roof mount array brackets
- DC combiners bypass

3-PH TRANSFORMERLESS STRING INVERTERS

Yaskawa - Solectria Solar's PVI 14TL, PVI 20TL, PVI 23TL, PVI 28TL, and PVI 36TL are compact, transformerless three-phase inverters with a dual MPP tracker. These inverters come standard with AC and DC disconnects, user-interactive LCD, and an 8-position string combiner. Its small, lightweight design makes for quick and easy installation and maintenance. These inverters include an enhanced DSP control, comprehensive protection functions, and advanced thermal design enabling highest reliability and uptime. They also come with a standard 10 year warranty with options for 15 and 20 years. Options include web-based monitoring, shade cover, DC/AC disconnect covers, DC combiners bypass, and roof mount array bracket.



SPECIFICATIONS	PVI 14TL	PVI 20TL	PVI 23TL	PVI 28TL	PVI 36TL
DC Input					
Absolute Maximum Open Circuit Voltage	600 VDC		1000 VDC		
Operating Voltage Range	180-580 VDC	260-580 VDC	300-900 VDC		200-950 VDC
Max Power Input Voltage Range (MPPT)	300-540 VDC	300-550 VDC	480-800 VDC	500-800 VDC	540-800 VDC
MPP Trackers	2 with 4-fused inputs per tracker				
Maximum Operating Input Current	25 A per MPPT (50 A)	35 A per MPPT (70 A)	25 A per MPPT (50 A)	29 A per MPPT (58 A)	35 A per MPPT (70 A)
Maximum Available PV Current (Isc x 1.25)	45 A per MPPT (90 A)	45.5 A per MPPT (91 A)	41 A per MPPT (82 A)	48 A per MPPT (96 A)	53.5 A per MPPT (107 A)
Maximum PV Power (per MPPT)	9.5 kW	13.5 kW	15.5 kW	19 kW	27 kW
Strike Voltage	300 V		330 V		
AC Output					
Nominal Output Voltage	208 VAC, 3-Ph		480 VAC, 3-Ph		
AC Voltage Range (Standard)	-12%/+10%				
Continuous Output Power	14 kW	20 kW	23 kW	28 kW	36 kW
Maximum Output Current	39 A	25.5 A	27.7 A	33.7 A	43.5 A
Maximum Backfeed Current	0 A				
Nominal Output Frequency	60 Hz				
Output Frequency Range	59.3-60.5 Hz (adjustable 55-65 Hz)				57-63 Hz
Power Factor	Unity, >0.99 (±0.8 adjustable)	Unity, >0.99 (±0.9 adjustable)	Unity, >0.99 (±0.8 adjustable)		
Fault Current Contribution (1 Cycle RMS)	70.4 A	43.3 A	69.6 A		73.2 A
Total Harmonic Distortion (THD) @ Rated Load	< 3%				
Grid Connection Type	3ø+/N/GND (4-wire)				
Efficiency					
Peak Efficiency	96.9%	97.4%	98.6%	98.4%	
CEC Efficiency	96.0%	97.0%	98.0%		
Tare Loss	4 W	2 W			
Integrated String Combiner					
8 Fused Positions (4 positions per MPPT)	15 A (fuse by-pass available)				15 or 30 A (30 A only for combined inputs)
Temperature					
Ambient Temperature Range	-13°F to +140°F (-25°C to +60°C) Derating occurs over +50°C		-13°F to +140°F (-25°C to +60°C) Derating occurs over +45°C		
Storage Temperature Range	-22°F to +158°F (-30°C to +70°C)				-40°F to +158°F (-40°C to +70°C)
Relative Humidity (non-condensing)	0-95%				
Operating Altitude	13,123 ft/4,000 m (derating from 6,562 ft/2,000 m)				13,123 ft/4,000 m (derating from 9,800 ft/3,000 m)
Data Monitoring					
Optional SolrenView Web-based Monitoring	Integrated				
Optional Revenue Grade Monitoring	External				
External Communication Interface	RS-485 Modbus RTU				
Testing & Certifications					
Safety Listings & Certifications	UL 1741/IEEE 1547, CSA C22.2#107.1, FCC part 15 B				
Testing Agency	ETL		CSA		
Warranty					
Standard	10 year				
Optional	15, 20 year; extended service agreement				
Enclosure					
dB(A) (Decibel) Rating	< 50 dBA @ 3 m				
AC/DC Disconnect	Standard, fully-integrated				
Dimensions (H x W x D)	41.6 in. x 21.4 in. x 8.5 in. (1057 mm x 544 mm x 216 mm)		39.4 in. x 23.6 in. x 9.1 in. (1001 mm x 600 mm x 232 mm)		
Weight	141 lbs (64 kg)	132 lbs (60 kg)	104 lbs (47.2 kg)		121 lbs (55kg)
Enclosure Rating	Type 4				Type 4X
Enclosure Finish	Polyester powder coated aluminum				

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TRANSFORMERS

Three Phase Pad Mounted Distribution Transformers

Ⓢ-PADs are designed and manufactured in compliance with all applicable ANSI and RUS standards. All transformers are oil filled, 65°C rise, and designed for usual service conditions per ANSI C57.12.00.

Ratings available are 30 through 2500 kVA with primary voltages 2.4 through 35 kV (150 kV BIL) and secondary voltages up to 600 volts.

KVA and Standard Voltage Offerings

- All standard tap configurations available.
- Dual voltage available in most combinations.
 - *Dual voltage with taps available (series connection)*
- Impedance and loss options available in most designs.



kVA	H.V.	BIL (kV)	L.V.
30	2400	60	240 Δ 120 tap 208Y/120 480Y/277 240 Δ 480 Δ 600Y/347
45	4160	75	
75	4800	95	
112.5	7200	95	
150	7620	95	
225	7970	95	
300	11400	125	
500	12000	125	
750	13200	125	
1000	13800	125	
1500	14400	125	
2000	14400	125	
2500	19920	150	





Product Features

Tanks:

- All bracing is internal
- Removable cover
- Pedestal base
 - Reduces weight
 - Improved corrosion protection

Bushings:

- Externally clamped with stainless steel studs and plated hardware
- Internal leads are sized for bushing extraction in times of maintenance or repair

Corrosion Protection:

- 100% of the padmount receives a paint finish that exceeds all ANSI requirements including 160 in-lb impact, 2000 hour salt spray, 1000 hours QUV and 20 cycle SCAB.
- ERMCO furnishes a 100% powder paint coverage.
- For added protection, extra paint thickness is applied around the base.



Precision Metal Fabrication



Powder Paint Application



Core/Coil Assembly

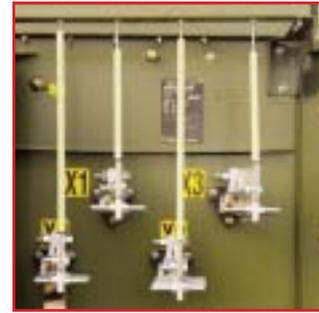
Bonus Features

(Standard on all ERMCO Padmount Transformers)

- Low Profile
 - Unique design exceeds ANSI tamper requirements
- Instruction book with photos supplied with each transformer
- Metal parts are rounded for improved safety and corrosion protection
- Cabinet sides
 - Hinged for easy access
 - Lock in open position
 - Securely fastened with spring loaded locking device
 - Removable
- Cabinet Hood
 - Hinged
 - Locks in 2 raised positions
 - Removable (one locking bolt)
 - Enables cables to be pulled vertically
- Cabinet Doors
 - Lock in open position
 - Removable (easy lift handle)
- Sill
 - Removable (five bolts)

Equipment Options

Accessory	Default Standard	Available
H.V. Fuse	Bay-O-Net with drip shield	Weak link, valve Bay-O-Net, CL fuse (dry well or internal)
L.V. Breaker	None	Magnetic or thermal trip, emergency overload
Arrester	None	Internal under oil HV arrester, LV surge arrester
H.V. Bushings	Wells with fixed stud	Removable stud wells, wells & inserts, integral load break bushings
L.V. Bushings	Stud and NEMA spade with jam nut	Stud only, integral spade, variety of connectors, supported LV bushings
Markings	kVA decal	Generic or customer specific decals, bar codes, stenciling, customer stock codes, serial numbering, and other markings
Taps/Dual Voltage	Cap wrench handle	Lever handle or hook stick handle
Nameplate	Laser etched aluminum	Stainless steel, special information bar code, material stock code, or practically any purchaser data
Tank	Mild steel (green color)	Gray or Tan color, hybrid(stainless pedestal and sill), undercoating, full 304L stainless
Fittings	1" drain with sampler and fill plug	Various valves and gauges
Core/Coil	Five legged	Triplex
Front Panel	ANSI minimum	ANSI specific or customer specified



L.V. Bushing Supports



Rounded Metal Edges



Side Wall Locking Device

ERMCO

2225 Industrial Rd.
Dyersburg, TN 38024
1.800.238.5587

ERMCO Components, Inc.

1607 Industrial Rd.
Greeneville, TN 37745
1.877.267.1855

www.ermco-eci.com

Quality and Reliability

- All electrical testing is per ANSI standards.
- Many other tests are made for control purposes such as, core loop loss and exciting current, coil ratio and polarity, oil properties, and multiple oil leak checks.

Warranty

- All ERMCO padmounts carry a full 2 year warranty.
- Includes lightning caused failures provided the transformer was installed, protected, and operated in accordance with normal industry accepted practices.
- Coverage includes round trip transportation between the purchasers shipping dock and the repair facility.

Maintenance

- All cabinet parts interchange with like size
- Removable tank cover
- Full access to internal components

ERMCO = Reliability + Quality + Service
...Why Not the Best?



Quality Assurance



Removable Tank Cover



Unique Cabinet Design

RACKING SYSTEM



Solar Mounting Systems

GROUND MOUNT

DESIGN

ENGINEERING

MANUFACTURING

INSTALLATION



RBI Solar designs, engineers, manufactures and installs solar mounting systems. This single-source responsibility is focused on delivering value throughout the solar value chain.

Features & Benefits

- Custom engineered to specific site conditions
- High strength steel with corrosion protection
- Designed to minimize field installation labor
 - Reduced number of posts compared to traditional racking
 - Follows contours to mitigate civil/site work
 - Same hardware throughout
 - Optional pre-assembly
- Design and engineering at every step of the way
 - In-house engineers
 - Stamped drawings including foundation
- Pile driving test available
- Flexible to mount any module type
- Nationwide installation
- Various foundation options
- UL 2703 classification available
- Procurement and manufacturing:
 - Leverage with national and international facilities
 - Material certification available
 - ARRA compliant; "Made in the USA" certification available





RBI Solar Background

Family owned and operated, we pride ourselves in 80+ years of experience in commercial design-build specialty structures. RBI Solar's unique design capabilities and multiple manufacturing facilities help us develop the most economical, reliable and robust solutions for any structural solar mounting challenge. We are committed to taking single point responsibility for the entire project starting from the initial design to complete installation of solar modules.

Engineered Foundation Options

Our engineers consider many factors when determining the most reliable and cost-effective foundation solution for our projects. Incorporating and analyzing data from available certified geotechnical reports, on-site pile testing, wind tunnel testing, and all applicable codes and loading considerations, our team can provide various foundation options:

- Driven post
- Concrete pier
- Dual post
- Screw piles
- Pre-cast or cast-in-place concrete ballast
- Spread footings

Installation Services

With experience of completing multiple solar racking jobs for commercial, institutional and utility customers, RBI Solar is the most trusted name when it comes to solar racking installation. Our highly trained project managers and installation crews work with your on-site engineers to install custom engineered solar racking systems. Racking installation is essential for meeting project time and budget goals. Advantages of using RBI Solar for installation include:

- Company owned post driving equipment
- Highly skilled construction crews that specialize in solar racking
- Dedicated project managers

Technical Specifications

Description of product	Fixed tilt racking
Efficient designs	GM-I, GM-T and GM-B
Module configuration	Landscape or portrait ; designed to accommodate any module type
Tilt angle	0° to 45°
Array height	Project specific design
Ground cover ratio	Project specific design
Installation options	Posts, racking and module mounting
Geographical range	Nationwide
Grounding	Continuously bonded racking; tested by ETL to UL2703 standards (GM-I & GM-T)
Wire management	Built-in wire management options
Design criteria	Engineered to meet applicable structural codes
Warranty	20-year limited warranty



SINGLE SOURCE PROVIDER



DESIGN

System classified to UL 2703, with in-house designers and engineers. Our focus is to deliver the most effective and efficient racking solution based upon the array layout and site conditions.

ENGINEERING

Our in-house engineers, licensed and registered in all states, provide structural calculations applying RBI proprietary wind tunnel analysis and focus on delivering appropriate racking and foundation design based on existing soil conditions.

MANUFACTURING

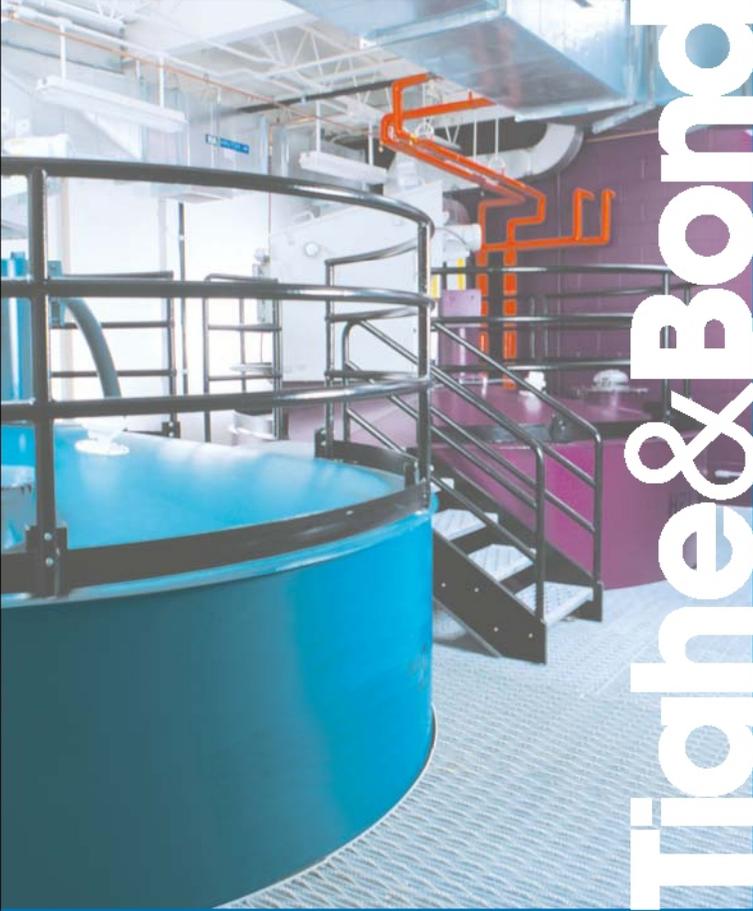
Multiple state-of-the-art manufacturing facilities, along with a vertically integrated procurement and manufacturing protocol, ensures overall quality of product with reduced lead times for material.

INSTALLATION

Single source responsibility, with in-house project management and installation crews. This approach reduces duplication of efforts throughout the enterprise, focused on delivering projects on time and within budget.

GROUND MOUNT • ROOF MOUNT • SPECIALTY STRUCTURES • LANDFILL

**Racking questions? We are here to answer.
Contact us at info@rbisolar.com or call (513)242-2051**



Tighe & Bond



29 Pumpkin Hollow Road, Egremont, MA

1.1 MW Solar PV Facility

Operation and Maintenance Manual

Operation and Maintenance Manual

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1.0 INTRODUCTION

This manual describes the basic operation and maintenance of the 29 Pumpkin Hollow Road, Egremont, MA ground mounted photovoltaic (PV) power generating facilities. The systems were designed by Industria Engineering, Inc.

The approximately 1.1 MW DC PV facilities are comprised of PV modules, associated wiring components and multiple inverters. In operation, the DC power produced by the solar array sub-facilities is converted to three-phase AC power by the inverters, which is then supplied into the electrical main utility switchboard at a separate point, which effectively enables them to function independently. The sub-facilities are then collectively interconnected to the utility system through a series of step-up transformers.

In the event of a power failure, the PV facility will automatically shut down to protect utility personnel from injury while repairing the utility system.

This manual provides a description of the PV facility, procedures for the basic operation, maintenance and troubleshooting of the system and important safety information.

1.1 RESPONSIBLE PARTIES

A Ground Lease Agreement will be executed between the Landowner (Lessor) and Kearsarge Solar LLC (Lessee) outlining the responsibilities described below; a copy of this agreement can be provided upon request.

Kearsarge Solar, LLC, is the Operator of the Site, and will be the responsible party for the following operations and maintenance activities on the Site:

- Grounds maintenance and maintenance within the limits of the leased premises
- Drainage swales and stormwater controls (if any) within the limits of the leased premises
- Access ways within the leased premises
- Mowing within the limits of the leased premises
- Snow removal and plowing, as necessary to accommodate maintenance activities

The Landowner will retain the responsibility for maintenance and repair of the access road to the leased premises.

1.2 CONTACT INFORMATION

Land Owner:

Lot 1: Ben Barrett
35 Locust Hill Road
Great Barrington, MA 01230
Ph: 413-644-0038
Email: ben@berkshirevener.com

Lot 4: Peter Barrett
40 Locust Hill Road
Great Barrington, MA 01230
Ph: 413-528-4507
Email: pbarrett76@gmail.com

Site Operator (Lessee):

Kearsarge Solar, LLC,
c/o Andrew Bernstein
480 Pleasant Street, Suite B110
Watertown, MA 02472
Tel: 617-393-4222
Abernstein@kearsargeenergy.com

For the purposes of reporting problems associated with the Site, a sign shall be maintained on the perimeter fence which lists appropriate contact information. Access to the Site shall be provided to authorized personnel only.

READ THE ENTIRE MANUAL BEFORE ATTEMPTING TO OPERATE THIS SYSTEM.

1.3 GENERAL SAFETY PRECAUTIONS

The systems have been designed for safe and reliable operation. However, it is critically important that any personnel who operate or maintain the systems observe the proper safety precautions. Listed below are some of the most critical safety considerations:

- 1 ONLY LICENSED, QUALIFIED, EXPERIENCED AND TRAINED PERSONNEL SHOULD PERFORM REPAIR WORK ON ANY ELECTRICAL COMPONENTS OF THE SYSTEMS.
- 2 DANGEROUS VOLTAGE LEVELS ARE PRESENT IN EACH SYSTEM – VOLTAGES UP TO 600 VOLTS DIRECT CURRENT (DC) CAN BE FOUND UNDER PARTICULAR OPERATING CONDITIONS. IT SHOULD BE NOTED THAT HIGH VOLTAGE DC SYSTEMS REQUIRE SPECIAL SAFETY PRECAUTIONS DURING MAINTENANCE OR REPAIR OPERATIONS
- 3 PV MODULES PRODUCE VOLTAGE WHENEVER THEY ARE EXPOSED TO SUNLIGHT. AT ANY TIME DURING DAYLIGHT HOURS, (INCLUDING MINIMAL SUNLIGHT CONDITIONS) THERE IS AN ELECTRICAL SHOCK HAZARD IF ANY PERSONNEL SHOULD CONTACT EXPOSED PV ARRAY ELECTRICAL CIRCUIT COMPONENTS.
- 4 BROKEN OR CRACKED PV MODULE GLASS CAN INCREASE RISK OF SHOCK HAZARD, ESPECIALLY WHEN WET. IMMEDIATELY CONTACT A QUALIFIED CONTRACTOR FOR REPLACEMENT SERVICES IF ANY BROKEN PV MODULE GLASS IS NOTICED.
- 5 IF YOU HAVE ANY QUESTIONS OR ARE UNSURE ABOUT HOW TO PROCEED, CALL INDUSTRIA ENGINEERING PRIOR TO PERFORMING ANY MAINTENANCE OR SERVICE WORK ON THE PV FACILITY.

Emergency Contact Information:

Industria Engineering, Inc.

(774) 270-0834

2.0 SYSTEM COMPONENT SAFETY

2.1 PV ARRAYS

The solid-state nature of the PV array greatly reduces the amount of maintenance required when compared to traditional mechanical generating systems. Unless a portion of the PV array becomes physically damaged, the system should be safe and reliable for the majority of its service life. In the event that repair or maintenance work must be undertaken, please be aware of the following precautions:

- Only qualified personnel should be allowed access to the internal or energized components of the PV array junction boxes, combiner boxes, disconnect switches or field wiring.
- The PV array will always be electrically energized during all daylight conditions; so proper training, experience and precautions are required to ensure personnel safety.
- Before attempting any maintenance or washing operations, carefully inspect the entire PV array for modules with broken glass. A qualified contractor must replace broken PV Modules before any array washing or other maintenance work is attempted.
- In order to disconnect the entire PV array from the inverters, secure the operating handles of all mounted PV Array disconnect switches in the "Off" position.
- To disconnect a single PV array source circuit from the inverter, secure the operating handle of its associated PV Array disconnect switch in the "Off" position.
- Verify that all components undergoing maintenance or repair are disconnected from the inverter before servicing.
- Do not remove any fuses, or disconnect any PV module wiring while the array is electrically connected to the inverter.
- Physical damage to components and hazardous conditions will result if any individual PV Array component is opened under load.
- Do not attempt to access the junction boxes on the back of the PV modules. There are no user serviceable components in the module junction boxes.
- Always follow safe work practices and use proper safety equipment during maintenance or repair operations on the PV array.

2.2 SOLECTRIA INVERTERS

When compared to historical rotary inverter technology, the solid-state design utilized in the Solectria Inverters greatly reduces maintenance requirements while maximizing system-operating efficiency. Before undertaking any routine maintenance or repair work, please read the Solectria manual and pay close attention to the following precautions:

- To shut down either inverter, turn the AC and DC Disconnect Switches, on the front of the inverter, to the "OFF" position. These switches can be used to shut down an inverter whenever there is a question regarding personal safety or the operation of either inverter.
- The appropriate AC breaker in the main switchboard for the respective inverter must be secured in the "OFF" position in order to ensure that the inverter is not energized by utility during routine maintenance operations.
- Only qualified, experienced and trained personnel should perform repairs on the electronic and electrically energized components inside the inverters.
- Because the interior of the inverter cabinet contains exposed high voltage components, the cabinet door should remain closed at all times. Qualified, maintenance or repair personnel should only open the cabinet to perform maintenance or service work after the inverter has been completely disconnected from all electrical energy sources and the capacitors have fully discharged.
- To reduce the risk of electric shock, do not perform any maintenance work other than that specified in the Solectria manual.
- Only Solectria factory personnel or their designated agents should perform any service work on the inverter's power conditioning or control components.
- Do not open the inverter cabinet doors during wet or inclement weather conditions. Introducing rain or moisture into the cabinet interior could result in hazardous conditions or damage to electrical components. For further information on the inverter, please refer to the appropriate Solectria manual.
- Be sure to follow safe work practices and use proper safety equipment during maintenance or repair operations on the inverters.

3.0 SYSTEM DESCRIPTION

3.1 PV ARRAY

The ground-mounted photovoltaic arrays consist of PV modules which convert sunlight directly into electricity for utilization by a load such as a utility interconnected inverter. Each module is a sealed, solid-state device with an expected performance life well in excess of 25 years.

Electrically, the PV modules are wired into groups, which are referred to as strings or source circuits. Each source circuit is comprised of 18 individual PV modules wired in a series configuration. Individual source circuits are then grouped together in combiner boxes forming sub-arrays.

For the PV modules to produce their full electrical output, they must be clean and free of shade. Shadows cast by nearby objects such as antennas, air conditioning equipment, trees, overhead wires, etc. will significantly reduce a module's current output. Because each module is electrically interconnected with 18 other modules, reducing the output of a single module effectively reduces the energy production for the entire source circuit.

The solar modules are mounted using the RBI solar ground mounting system, with a steel frame to secure the solar array at a 25 degree tilt and the modules in a design that minimizes shading, while optimizing use of area.

3.2 INVERTERS

The inverters act as a fully automatic power-conditioning interface between the PV array and the utility system. The inverter will utilize solid-state power and control components to maximize power production from the PV array while meeting power quality and safety standards set forth by utilities under Underwriters Laboratories Safety Standards.

An LED display associated with the Ground Fault Detection and Interrupt Circuit (GFDI) on the face of the inverter will indicate the operating status of the unit along with other pertinent data. Please refer to the Solectria O&M manual for more details on the design and operation of the inverter.

To operate efficiently, the inverter circuit components must be kept free of excessive dust and dirt. In addition, the cooling fans and the blower impellers must be kept clean for efficient air movement. Dirt accumulating on circuit boards and electrical equipment leads to higher component operating temperatures and shorter life.

3.3 ELECTRICAL SYSTEM

The main electrical circuitry associated with the system transfers electrical energy from the PV arrays to the inverters and then from the inverters to the point of utility interconnection. The components utilized in the system design are standard electrical components and can be serviced by any qualified electrical contractor who is thoroughly familiar with photovoltaic power systems.

3.4 DATA ACQUISITION SYSTEM

This Photovoltaic power system is equipped with a Data Acquisition System (DAS) to monitor the energy production of the system.

The DAS consists of an environmental weather monitoring system, and various energy measurement components, which are both connected to an Internet Broadcast Device. The central DAS components and environmental components are located together within the site.

An environmental instrument package measures solar insolation, wind speed, and ambient temperature while the energy monitoring system measures power and the electrical energy produced by the system.

Information gathered by the DAS is broadcast to a web site for processing and monitoring purposes. This service not only gathers energy production data, but also issues alerts to system administrators when the system's projected performance falls below expected values.

4.0 OPERATION

4.1 SYSTEM OPERATION

During normal operation, the inverters will act as fully automatic power-conditioning devices. The inverter will start to process power whenever there is sufficient energy available from the PV array. During the generation process, the inverter will utilize peak power tracking technology to maximize the energy production from the array. This function is achieved by varying the peak voltage and current point on the power curve for the photovoltaic array as operating conditions vary throughout the day.

Under basic operation, the PV array generates direct current (DC) and supplies it to the inverter. The inverter processes and conditions the direct current obtained from the PV array into 480 volt three-phase alternating current (AC), which is compatible with the utility voltage at the site. In addition, the inverter synchronizes the phase characteristics and frequency to match that of the utility system.

In the event that the quality of the utility power momentarily falls outside a set of pre-specified parameters, the inverter will automatically shut down in a fault mode. After stable utility power becomes available again, the inverters will automatically restart and continue to process power. In the total absence of utility power, the inverter will not operate for the safety reason stated earlier.

Whenever the PV array produces insufficient energy to efficiently operate the inverter, the inverter will automatically go into a low power "sleep" mode. The inverter will then sample the PV array for available power and resume power processing functions when sufficient levels of electrical energy are once again available from the array.

The inverter will also shut down whenever an operating problem is detected with the PV array, utility power quality or an internal operating parameter. Under such conditions, a fault code will be displayed on the front user interface panel. The fault code can be then matched to a detailed list of fault codes found in the Solectria SGI Inverter O&M manual.

4.2 EMERGENCY SHUTDOWN PROCEDURE

The following steps are required to shut the system down in an emergency:

- 1 Turn the AC Disconnect Switch to the "OFF" position.
- 2 Turn the DC Disconnect Switch to the "OFF" position.

These steps will power off the inverter however AC power from the grid and DC power from the array will still be present in the inverter wire termination section.

The next steps will disconnect power from the array and the utility transformer to the inverters:

- 1 Open DC PV array disconnect switches located on the inverter pad.
- 2 Open the main overhead disconnect switch. Or disconnect the individual inverter circuit breakers located inside the switchboards within the site.

Please refer to the as-built drawings for switch location.

IMPORTANT NOTES:

WHILE THE ABOVE STEPS ISOLATE THE PV ARRAY CIRCUITS FROM THE INVERTERS, ALL CIRCUITS BETWEEN THE PV MODULES AND THE DISCONNECT SWITCHES WILL BE ENERGIZED DURING DAYLIGHT HOURS. HIGH VOLTAGE WILL BE PRESENT EVEN AT LOW LEVELS OF SUNLIGHT.

IT IS IMPERATIVE TO FOLLOW SAFE WORK PRACTICES AND USE PROPER SAFETY EQUIPMENT DURING ANY EMERGENCY OPERATIONS, WHICH INVOLVE ANY PORTION OF THE PV ARRAY.

4.3 ACTIVATING OR STARTING THE SYSTEM

Before attempting to operate the inverters, refer to the Solectria inverter O&M manual for initial turn-on procedures. The O&M manual also contains a detailed list of inverter fault codes, safety procedures, and other pertinent information.

The following describes normal steps taken to turn the inverter on or off. Refer to the as-built drawings for identification of components.

The start-up operations listed below should be followed in the sequence listed (for each inverter):

- 1 Remove any lockout devices on the disconnect switches after confirming that any repairs or maintenance operations have been completed and that no personnel are still working on the system.
- 2 Make sure that the inverter cabinet doors are all closed and locked.
- 3 Turn on the dedicated 3-phase (dedicated) circuit breaker on the electrical panel.
- 4 Verify the proper clockwise phase sequence at the "line" side terminals (top) of the AC disconnect. Do not turn on until clockwise phase sequence has been verified.
- 5 Turn on the Inverter's 3-phase AC disconnect.
- 6 Turn on the Inverter's DC disconnect.
- 7 Watch the LED indicators for initialization (green and red LEDs on), then slow blinking green LED followed by faster blinking green LED. Watch the LCD display for prompts and system status.
- 8 Listen for contactor clunk (inverter on-line).
- 9 Listen for slight 60Hz hum (transformer on-line).
- 10 Following the blinking green LED and high frequency switching sound you should see a solid green LED (inverter on-line and beginning to feed power into 3-phase circuit). This confirms that the inverter is operating normally. The LCD display will show the AC Power, Energy, current and voltage as well as DC voltage.
- 11 If the unit fails to power on, use the troubleshooting information provided in the user manual. If those steps do not resolve the problem, contact Facility Operations Manager or Solectria Renewables LLC.

5.0 MAINTENANCE

5.1 MAINTENANCE PRECAUTIONS

Before undertaking any maintenance or repair operations involving physical contact with the PV Array or inverter components follow the shutdown procedure described in the previous sections.

- 1 Review and understand all safety precautions and maintenance operations described in both this document and the Solectria Inverter Manual.
- 2 Only qualified individuals should perform or supervise any maintenance procedures.
- 3 Install appropriate lock out devices on the all system disconnecting means to protect personnel performing maintenance operations on the system from electrical shock hazards.
- 4 Do not open the inverter cabinet door for any reason, only Solectria personnel are permitted to perform maintenance or inspections.
- 5 Contact Facility Operations Manager if there are any questions regarding operation or maintenance procedure for the PV array.

Note: The PV array circuits, array combiner boxes, the array disconnect switches and all associated wiring will remain energized as long as there is sunlight. Hazardous DC voltage levels will be present in all these components even during very low daylight conditions.

5.2 MONTHLY MAINTENANCE PROCEDURES

As a general rule, the following procedures should be executed for the monthly maintenance procedure:

- Visually inspect the entire PV array for any broken front glass panels on any of the PV modules.
- Do not physically touch or attempt to clean any broken modules.
- Broken PV module glass can present a since a serious or fatal electrical shock hazard, especially if wet.
- Log any damage information and report it to the Facility Operations Manager.
- Visually check that array wiring is secured to the PV module frames and is not dangling loose where it is subject to damage from wind movement.
- Visually inspect electrical conduits, the exterior enclosures of the disconnect switches and the inverters for physical damage, corrosion or an excessive accumulation of dirt or debris.
- Verify that physical access to the inverters and electrical disconnect switches has not become obstructed by other equipment or materials.

5.3 ANNUAL MAINTENANCE PROCEDURES

Components & Equipment	Description	Preventative Action
PV Modules	Check for dust & debris on module surface	Wash or wipe clean with water
	Check for physical damage on all PV modules	Replace damaged PV modules
	Check for loose or disconnected cable terminations between PV module wiring	Retighten or reconnect wiring
	Check for cable condition	Replace worn cables if necessary
	Check for shading obstructions on all PV modules	Identify source and remove
PV Inverters	Check functionality – e.g. auto disconnect upon loss of grid power supply, error & ground fault LED indicators	Consult inverter manufacturer for repair or replacement parts
	Check ventilation condition	Clear dirt, dust or debris from ventilation system
	Check for abnormal operating temperature	Consult inverter manufacturer for repair or replacement parts
	Check for abnormal noises – i.e. irregular humming or rattling	Consult inverter manufacturer for repair
Cables	Check for cable conditions – i.e. wear and tear	Replace worn cables if necessary
	Check cable terminals for burnt marks, hot spots or loose connections	Tighten connections or replace if necessary
Combiner Boxes	Check cable terminals – e.g. wear and tear, loose connections or burn marks	Tighten or replace if necessary
	Check for placards and signage	Replace if necessary
	Check for physical damage	Replace if necessary
	Check for blown fuses inside the Combiner Box	Replace blown fuses
	Check for water leaks inside the Combiner Box	Replace combiner box or repair to prevent future water leaks
Bonding & Grounding	Check grounding cable and bonding connection conditions	Replace worn cables if necessary
	Check the physical grounding/bonding connection	Retighten connection if necessary
	Check continuity of grounding and bonding conductors	Troubleshoot or replace if necessary
Disconnect Switches	Check functionality	Replace or repair as necessary
PV Module Racking System	Check for corrosion	Treat corroded areas or consult racking manufacturer/installer
	Check for damage to racking system	Replace or repair damaged parts
	Check for settlement	
Pole Mounted Equipment	Check for damage or irregularities – e.g. damage from weather related incidents, blown fuses, lightning marks, etc.	Replace or repair damaged equipment

5.4 PV MODULE CLEANING PROCEDURE

A thin layer of dust does not significantly degrade PV array performance; however, heavy accumulations of dirt or grime should be removed by carefully washing the array. Routine washing of the PV modules during prolonged, dry, dusty seasons of the year will maintain the predicted levels of energy production. Array cleaning operations are not normally recommended if natural rain events are frequent enough to keep the PV modules relatively free of dust and dirt.

Perform Array cleaning operations in the order described below:

- Prior to undertaking any cleaning efforts, carefully inspect the entire PV array for any broken glass on any one of the PV modules.
- Do not attempt to wash any broken PV modules; PV modules with broken glass can present a serious or fatal electrical shock hazard, when wet.
- If broken Modules are discovered, contact the facility operations manager. All broken PV modules must be replaced before undertaking any cleaning related activities.
- Wash the PV array only during early morning hours before the module glass temperature rises above ambient air temperature.
- Turn off and secure all PV Array Disconnect (main DC disconnects and combiner box DC disconnect) switches prior to starting cleaning operations.
- Exercise caution when moving hoses and using cleaning equipment to prevent damage to the PV modules and other equipment during cleaning operations.
- Use clean, low-pressure, hose directed water to remove loose dirt from the module surfaces.
- Do not use any water sources containing heavy minerals, which upon drying may coat the module surface with undesirable deposits, reducing the PV modules' performance.
- For persistent soil deposits, employ hose directed water and a wet, soft brush to clean modules. Do not use a dry mop or broom without water since it could damage the glass surface.
- If any PV modules are damaged or broken during cleaning work, immediately stop all activities and follow the actions described above.
- After completing cleaning operations, turn all PV Array Disconnect switches back on.
- Verify that the inverters have automatically restarted and that no fault conditions exist.

5.5 PV MODULE REPLACEMENT PROCEDURE

WARNING: ONLY QUALIFIED PERSONNEL SHOULD WORK ON THIS SYSTEM. PHOTOVOLTAIC MODULES ARE ALWAYS ENERGIZED WHEN EXPOSED TO LIGHT.

Perform module replacement operations in the order described below:

- Refer to the string wiring diagram to locate which combiner box the module is associated with.
- Put in the OFF position and lock out all PV Array Disconnect (inverter pad DC disconnect and combiner box DC disconnect) switches associated with the combiner box prior to starting replacement operation.
- Open all 15 amp series circuit fuses that are in the combiner box that the module is associated with.
- **WARNING:** Do not open fuses until the DC disconnects have been turned off. Pulling fuses under load is an unsafe practice and a fire hazard, doing so could cause damage to PV wire, fuse holder, and combiner box.
- Cover the module with a blank out mat with steel spring clamp.
- Use PV disconnect tool to disconnect positive and negative leads of the broken module.
- **WARNING:** Do not disconnect modules until the fuses have been pulled. Disconnecting modules under load is an unsafe practice and a fire hazard, doing so could cause damage to PV module, connector, and wire.
- Loosen the four 5/16" bolts that attach PV module to racking.
- Replace broken module with new module.
- Replace the four 5/16" bolts and torque to 12 ft-lbs.
- Check module leads for any damage, and then connect positive and negative leads.
- Replace tie wraps for wire management.
- Close all 15 amp fuses that are in the combiner box that the module is associated with.

6.0 TROUBLESHOOTING

Effective troubleshooting requires familiarity with the general system configuration, PV arrays, and inverters. Qualified technicians with high voltage power system experience should only perform such work. All warnings issued previously in this document and the Solectria O&M manuals apply.

6.1 *INVERTER IS NOT OPERATING*

In the event that the inverter is not running as expected during daylight hours with a clear sky and strong sunlight, please check the following:

- 1 Contact the Facility Operations Manager.
- 2 Verify that the facility is receiving power from the utility connection and that an electrical outage has not occurred within the last 10 minutes.
- 3 Make sure that the inverter cabinet doors are all closed and locked.

If the inverter does not begin countdown to operation after a 300 second delay once step three is complete, look for lockout devices on the disconnect switches listed below.

Important Note: The switches listed below may also be found unlocked in the "OFF" position for a specific reason. Do not close any switches without first verifying that no personnel or property are at risk if the switch is closed.

- 1 Utility AC Disconnect.
- 2 Inverter AC Disconnect.
- 3 Array Disconnects.

After establishing that it is safe to do so, close the switches in the following sequence:

- 1 Close the Combiner box DC Disconnect switches.
- 2 Close the main disconnect switch and close the individual inverter specific breakers in the switchboard cabinets.
- 3 Close the DC PV array disconnect switches located on the inverter pad.

If the inverter still does not operate after completing the sequence described above, then a Fault condition likely exists. Please refer to the following section for recommendations on further actions.

6.2 INVERTER IS IN FAULT MODE

The Solectria inverters have a set of internally monitored operating conditions that must be met for safe and reliable operation. If any of these conditions is not met, the inverter shuts down and goes into what is known as a "Fault" mode. The inverter will remain in off in the Fault mode until the condition is corrected.

Many operating conditions may change temporarily during normal system operation. Temporary fault conditions such as momentary sags in utility line frequency or voltages are transient, so the inverter will automatically restart after the operating conditions return to normal.

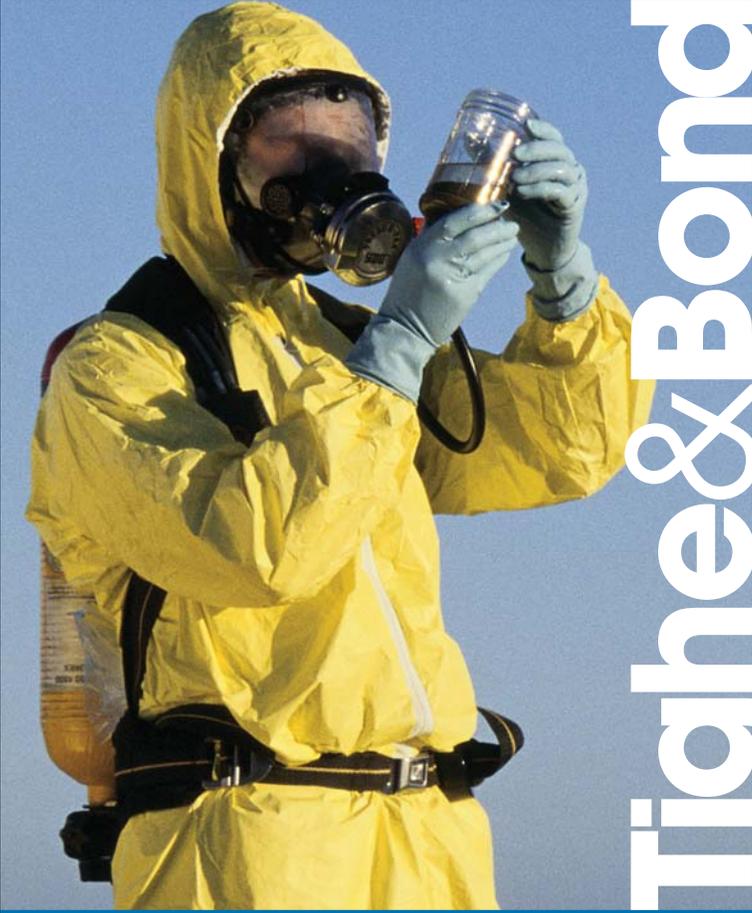
If the fault condition is not temporary the inverter will remain out of operation until the fault condition is corrected. In the event that an inverter has been off for several hours with uninterrupted electric utility service and clear sunny skies, then a more prevalent type of fault condition is likely preventing the inverter from operating.

To identify the fault condition, please refer to section 7 of the Solectria Installation and Operation manual for a description of how identify fault codes and how to do a soft restart as well as a hard restart of the inverter. The menu will indicate the present fault condition, which should recorded, be reported to facility operations manager for evaluation and correction.

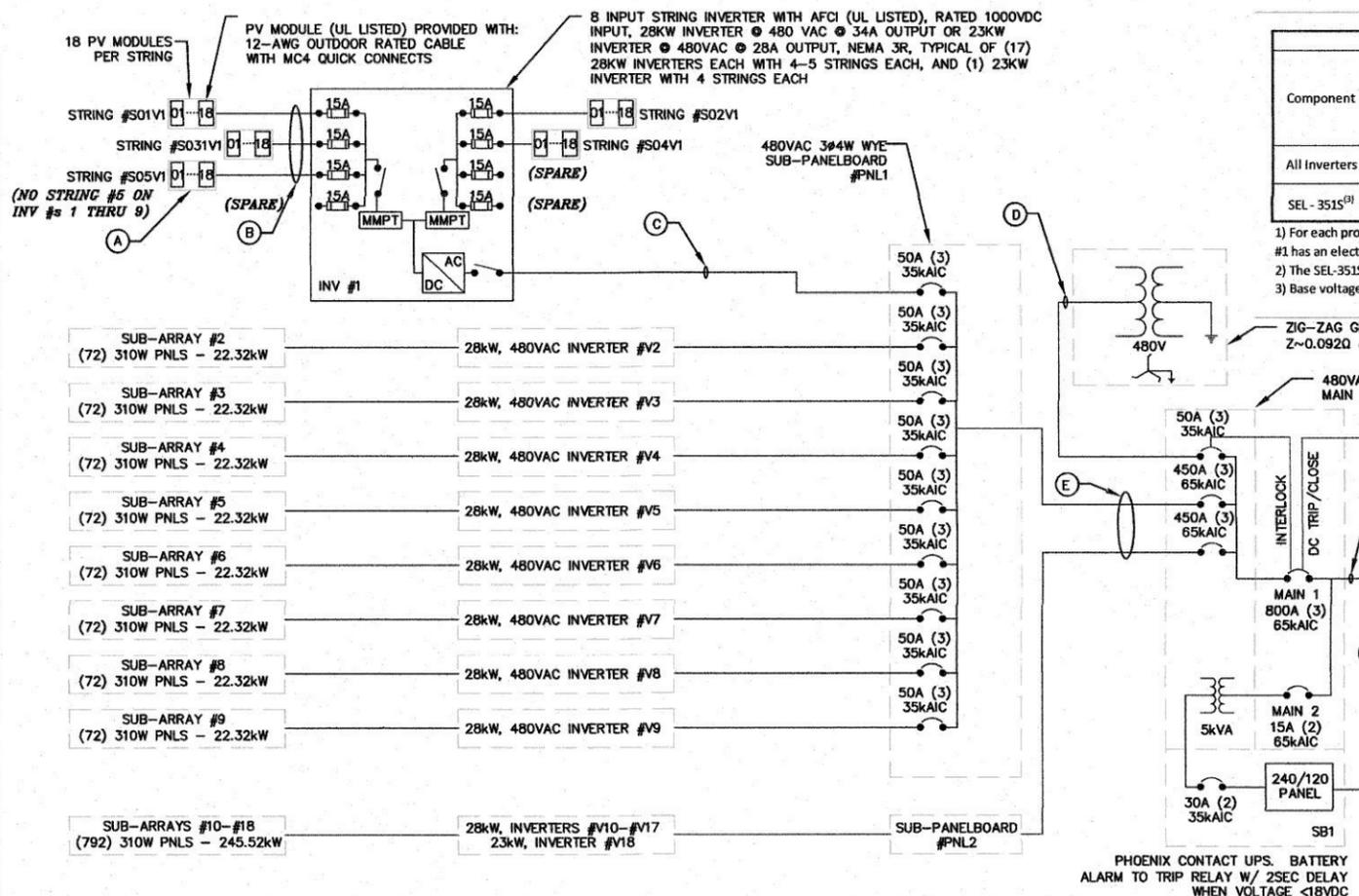
6.3 LOW ENERGY PRODUCTION REPORTED BY THE DAS

Some common causes of system underperformance are:

- Heavy dirt, debris, dust accumulation, or shading on the PV array.
- Damaged PV modules.
- Compromised electrical system components such as damaged conduit or wiring.
- Open fuses in the PV array combiner boxes or open disconnect switches.



Tighe & Bond



Relay Settings

Component	Base Info		Relay Element ⁽¹⁾																				
	Freq (Hz)	Voltage (V)	81U (Fast)		81U (Slow)		81O (Fast)		27 (Fast)		27 (Slow)		59 (Slow)		59 (Fast)		51		51G		59N ⁽²⁾		
			Freq	Pick Up & Clear(s)	Freq	Pick Up & Clear(s)	Freq	Pick Up & Clear(s)	Volt	Pick Up & Clear(s)	Amp (sec.)	Curve & T.Dial	Amp (sec.)	Curve & T.Dial	Amp (sec.)	Pick Up & Clear(s)							
All Inverters	60	480	57.0	0.09	58.0	31.93	0.16	60.5	0.09	240.0	0.09	422.4	0.88	528.0	0.88	576.0	0.15	-	-	-	-	-	-
SEL-351S ⁽³⁾	60	96.22	57.0	0.12	58.0	31.96	0.16	60.5	0.12	48.11	0.12	84.67	1.96	105.84	0.96	59.63	0.12	6.44	U4	2.50	U4	50%	1.30

1) For each protective element the relay Pick up time & Total Clear time are shown. Total Clear time includes relay pick up time and electrical device clearing time. Inverters have an electrical device clearing time of 70 milliseconds. Main Breaker #1 has an electrical clearing time of 40 milliseconds. All settings are purposed and to be finalized at the time of witness test review submittal to the utility by the relay contractor.

2) The SEL-351S relay provides 59N protective element for the system.

3) Base voltage is derived by the following: $(480/1.7321)/2.88 = 96.22V$.

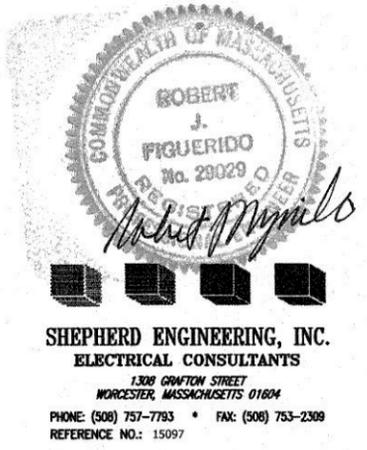
Schedule of Major Electrical Equipment

Component	Description	Manufacture	Model Number	Qty
PV Module	310 Watt, 72 polycrystalline silicon cells per module, model year 2014	Jinko Solar	JKM310P-72	1440
Inverter #V1 to #V17	28 kw String Inverter, Output: 480VAC @ 34A (98% CEC),	Solectria	PVI 28TL	17
Inverter #V18	23 kw String Inverter, Output: 480VAC @ 28A (98% CEC),	Solectria	PVI 23TL	1
Panel Boards PNL1 thru PNL2	600A MLO, 480V, 35kAIC, copper bus, Panelboard with FD breakers, NEMA 3R enclosure	Eaton	Contact Vendor	2
Entrance Equipment	Switchboard #SB1	Eaton	Pow-R-Line	1
	Redundant Relay		Magnum SB	
	Test		Digitrip 520M	
	SEL-351S Breaker Relay, DC powered from UPS & batteries, mirrored bits/modbus RTU board w/DNP, EIA-485 rear card w/ ethernet, (3) PT & (3) 5A CT card with metering/protect pkg card	Schweitzer Engineering Laboratories	SEL-351S	1
	4 voltage inputs & 3 current inputs with shorting	ABB	FT-1	1
Transformer #1	500kVA Pad mounted transformer, Z = 5.75%, 200A deadfront loop feed, (3) on/off under oil load-beak switches, liquid level/thermometer/pressure gauges, spare fuses.	ERMCO or equal	Contact Vendor	1
Surge Arresters	Elbow arresters, 15kV Class, 10.2kV MCOV rating	Cooper Power	3238018C12M	3
Main Generator Disconnect	15kV class 3-phase gang operated load break switch, Riser style w/recip. control rod, steel crossarm, bonded control handle, additional nameplate on handle, ice shields, grounding connector on crossarm. Jaw side of switch must be on the utility side.	S&C Electric	ED703R4-B-S10	1

SOLAR POWER GENERATION SYSTEM SUMMARY

29 Pumpkin Hollow Lot #1
Egremont, MA 01230

Sub Array Components		
PV Module Manufacturer	Jinko	
PV Module Model	JKM310P-72	
PV Module Nominal Rating	310	W
PV Modules per Source String	18	18
Inverter Manufacture	Solectria	
Inverter Model	PVI 28TL	PVI 23TL
Inverter Nominal AC Rating	28	23 kW
Overall System		
Inverter Quantity	17	1
Total Number of PV Modules	1,440	
DC System Ratings @ Inverters		
Total Nominal System Rating (DC-STC)	446.40 kW	
AC System Rating @ Inverters		
System Output Voltage	480	VAC
System Output Amperage (Max)	578	28 A
Total System Output Amperage	606 A	
Nominal Rating (AC-STC)	476	23 kW
Total Nominal System Rating (AC-STC)	499 kW	



NOTES:
1) THESE ELECTRICAL DRAWINGS PRESENT THE PERFORMANCE BASED STANDARDS AND BASIC EQUIPMENT AND MATERIALS. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL EQUIPMENT AND MATERIALS SPECIFIED FOR THEIR SCOPE OF WORK AND AS REQUIRED FOR COMPLIANCE WITH THE NEC, MASSACHUSETTS ELECTRIC CODE, AND THE MANUFACTURERS PROPER INSTALLATION AND COMMISSIONING INSTRUCTIONS REGARDLESS OF WHETHER THEY ARE INCLUDED AND SHOWN IN THESE DRAWINGS OR NOT.

**PRELIMINARY PRINTS
FOR UTILITY INTERCONNECTION ONLY
NOT FOR CONSTRUCTION**

INDUSTRIA ENGINEERING	
TITLE: PRELIMINARY SINGLELINE FOR LOT #1	
PROJECT: PUMPKIN HOLLOW	
SITE: EGREMONT, MASSACHUSETTS	
CLIENT: KEARSARGE ENERGY, LLC	
DESIGNED DF/GM	CHECKED RM
FILENAME: PUMPKINDSIGN	DATE: APRIL 2016
FIGURE: 2	

Exhibit G – Interconnection Service Agreement

1. **Parties.** This Interconnection Service Agreement (“Agreement”), dated as of 08/11/2016 (“Effective Date”) is for application number “MA-19734685” and is entered into, by and between **Massachusetts Electric Company (doing business as National Grid)**, a **Massachusetts Corporation** with a principal place of business at **40 Sylvan Rd, Waltham, MA 02451** (hereinafter referred to as the “Company”), and **Kearsarge Solar LLC, a LLC** with a principal place of business (or residence) at **480 Pleasant Street, Suite B110, Watertown, MA 02472** (“Interconnecting Customer”). (The Company and Interconnecting Customer are collectively referred to as the “Parties”). Terms used herein without definition shall have the meanings set forth in Section 1.2 of the Interconnection Tariff which is hereby incorporated by reference.
2. **Basic Understandings.** This Agreement provides for parallel operation of an Interconnecting Customer’s Facility with the Company EPS to be installed and operated by the Interconnecting Customer at **25 Pumpkin-Hollow Road, Lot 1, Great Barrington, MA 01230**. A description of the Facility is located in Attachment 1. If the Interconnecting Customer is not the Customer, an Agreement between the Company and the Company’s Retail Customer, attached as Exhibit H to the Interconnection Tariff, must be signed and included as an Attachment to this Agreement. If neither the Interconnecting Customer nor the Landowner of the property where the Facility is sited, a Landowner Consent Agreement, attached as Exhibit I to the Interconnection Tariff, must be signed and included as an Attachment to this Agreement, unless the Company, in its sole discretion, waives this requirement.

The Interconnecting Customer has the right to operate its Facility in parallel with the Company EPS immediately upon successful completion of the protective relays testing as witnessed by the Company and receipt of written notice from the Company that interconnection with the Company EPS is authorized (“Authorization Date”).

3. **Term.** This Agreement shall become effective as of the Effective Date. The Agreement shall continue in full force and effect until terminated pursuant to Section 4 of this Agreement.
4. **Termination.**
 - 4.1. This Agreement may be terminated under the following conditions.
 - 4.1.(a) The Parties agree in writing to terminate the Agreement.
 - 4.1.(b) The Interconnecting Customer may terminate this agreement at any time by providing sixty (60) days written notice to Company.
 - 4.1.(c) The Company may terminate this Agreement upon the occurrence of an Event of Default by the Interconnecting Customer as provided in Section 18 of this Agreement.
 - 4.1.(d) The Company may terminate this Agreement if the Interconnecting Customer either: (1) fails to energize the Facility within 12 months of the Authorization Date; or, (2) permanently abandons the Facility. Failure to operate the Facility for any consecutive 12 month period after the Authorization Date shall constitute permanent abandonment unless otherwise agreed to in writing between the Parties.
 - 4.1.(e) The Company, upon 30 days’ notice, may terminate this Agreement if there are any changes in Department regulations or state law that have a material adverse effect on the Company’s ability to perform its obligations under the terms of this Agreement.
 - 4.2. **Survival of Obligations.** The termination of this Agreement shall not relieve either Party of its liabilities and obligations, owed or continuing at the time of termination. Sections 5, 10, 12, 13, and 25 as it relates to disputes pending or for wrongful termination of this Agreement shall survive the termination of this Agreement.
 - 4.3. **Related Agreements.** Any agreement attached to and incorporated into this Agreement shall terminate concurrently with this Agreement unless the Parties have agreed otherwise in writing. The System Modifications construction schedule from the Detailed Study shall be deemed a part of the signed Interconnection Service Agreement. If the Interconnection Service Agreement is signed prior to a Detailed Study, the Interconnection Service Agreement shall apply the construction schedule once it is signed.
5. **General Payment Terms.** The Interconnecting Customer shall be responsible for the System Modification costs and payment terms identified in Attachment 3 of this Agreement and any approved cost increases pursuant to the terms of the Interconnection Tariff. Interconnecting Customers shall not be required to pay any costs related to Company infrastructure upgrades or System Modifications upon execution of the Interconnection Service Agreement (or once the Interconnecting Customer receives the construction schedule). Interconnecting Customers shall have 120 Business Days from the date of execution of an Interconnection Service Agreement to pay 25 percent of those costs; if an Interconnecting Customer pays such cost within the 120 Business Day Time Frame, the Interconnecting Customer shall have an additional 120 Business

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Days from the date of first payment to pay the remainder of the costs. If the system modifications exceed \$25,000, the Interconnecting Customer is eligible for a payment plan, including a payment and construction schedule with milestones for both parties, and any such payment plan shall be set forth in Attachment 3. The payment plan may include a payment schedule different than the 120 Business Day payment schedule requirements set forth in this paragraph above.

Construction estimates are valid for 60 Business Days from when they are delivered to the Interconnecting Customer. If an Interconnecting Customer payment is not received within 60 Business Days of receiving the Interconnection Service Agreement in the Expedited Process, or the Impact Study in the Standard Process, the Company has the right to reassess construction costs and Time Frames. In the event that the Interconnecting Customer fails to pay the Company within the Time Frame required by this provision, the Company will require the Interconnecting Customer to reapply for interconnection. Further, any fees paid will not be refunded. The construction schedule will commence once the Interconnecting Customer's financial payment has been made in full or as otherwise provided in Attachment 3. The Company's obligation to the construction schedule (as it appears in either the Interconnection Service Agreement or the Detailed Study, if the Interconnecting Customer has opted to sign the Interconnection Service Agreement without a Detailed Study) begins on the next Business Day after the Company receives full payment for such construction or as otherwise provided in Attachment 3.

- 5.1. **Cost or Fee Adjustment Procedures.** The Company will, in writing, advise the Interconnecting Customer in advance of any cost increase for work to be performed up to a total amount of increase of 10% only. All costs that exceed the 10% increase cap will be borne solely by the Company. Interconnecting Customers who elected to execute an Interconnection Services Agreement following the completion of the Impact Study but prior to the commencement of any Design Studies, pursuant to Section 3.4(e) of the Interconnection Tariff, shall be responsible for any System Modifications costs, $\pm 25\%$, as identified by the Company in the Impact Study. Any such changes to the Company's costs for the work shall be subject to the Interconnecting Customer's consent. The Interconnecting Customer shall, within thirty (30) Business Days of the Company's notice of increase, authorize such increase and make payment in the amount up to the 10% increase cap, or the Company will suspend the work and the corresponding agreement will terminate.
 - 5.2. **Final Accounting.** An Interconnecting Customer may request a final accounting report of any difference between (a) Interconnecting Customer's cost responsibility under this Agreement for the actual cost of the System Modifications, and (b) Interconnecting Customer's previous aggregate payments to the Company under the Interconnection Service Agreement for such System Modifications within 120 Business days after completion of the construction and installation of the System Modifications described in an attached exhibit to the Interconnection Service Agreement. Upon receipt of such a request from an Interconnecting Customer, the Company shall have 120 Business days to provide the requested final accounting report to the Interconnecting Customer. To the extent that Interconnecting Customer's cost responsibility in the Interconnection Service Agreement exceeds Interconnecting Customer's previous aggregate payments, the Company shall invoice Interconnecting Customer and Interconnecting Customer shall make payment to the Company within 45 Business Days. To the extent that Interconnecting Customer's previous aggregate payments exceed Interconnecting Customer's cost responsibility under this agreement, the Company shall refund to Interconnecting Customer an amount equal to the difference within forty five (45) Business Days of the provision of such final accounting report.
6. **Operating Requirements.**
- 6.1. **General Operating Requirements.** Interconnecting Customer shall operate and maintain the Facility in accordance with the applicable manufacturer's recommended maintenance schedule, in compliance with all aspects of the Company's Interconnection Tariff. The Interconnecting Customer will continue to comply with all applicable laws and requirements after interconnection has occurred. In the event the Company has reason to believe that the Interconnecting Customer's installation may be the source of problems on the Company EPS, the Company has the right to install monitoring equipment at a mutually agreed upon location to determine the source of the problems. If the Facility is determined to be the source of the problems, the Company may require disconnection as outlined in Section 7.0 of this Interconnection Tariff. The cost of this testing will be borne by the Company unless the Company demonstrates that the problem or problems are caused by the Facility or if the test was performed at the request of the Interconnecting Customer.
 - 6.2. **No Adverse Effects; Non-interference.** Company shall notify Interconnecting Customer if there is evidence that the operation of the Facility could cause disruption or deterioration of service to other Customers served from the same Company EPS or if operation of the Facility could cause damage to Company EPS or Affected Systems. The

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deterioration of service could be, but is not limited to, harmonic injection in excess of IEEE Standard 1547-2003, as well as voltage fluctuations caused by large step changes in loading at the Facility. Each Party will notify the other of any emergency or hazardous condition or occurrence with its equipment or facilities which could affect safe operation of the other Party's equipment or facilities. Each Party shall use reasonable efforts to provide the other Party with advance notice of such conditions.

The Company will operate the EPS in such a manner so as to not unreasonably interfere with the operation of the Facility. The Interconnecting Customer will protect itself from normal disturbances propagating through the Company EPS, and such normal disturbances shall not constitute unreasonable interference unless the Company has deviated from Good Utility Practice. Examples of such disturbances could be, but are not limited to, single-phasing events, voltage sags from remote faults on the Company EPS, and outages on the Company EPS. If the Interconnecting Customer demonstrates that the Company EPS is adversely affecting the operation of the Facility and if the adverse effect is a result of a Company deviation from Good Utility Practice, the Company shall take appropriate action to eliminate the adverse effect.

- 6.3. Safe Operations and Maintenance.** Each Party shall operate, maintain, repair, and inspect, and shall be fully responsible for, the facility or facilities that it now or hereafter may own unless otherwise specified in this Agreement. Each Party shall be responsible for the maintenance, repair and condition of its respective lines and appurtenances on their respective side of the PCC. The Company and the Interconnecting Customer shall each provide equipment on its respective side of the PCC that adequately protects the Company's EPS, personnel, and other persons from damage and injury.
- 6.4. Access.** The Company shall have access to the disconnect switch of the Facility at all times.
- 6.4.(a) Company and Interconnecting Customer Representatives.** Each Party shall provide and update as necessary the telephone number that can be used at all times to allow either Party to report an emergency.
- 6.4. (b) Company Right to Access Company-Owned Facilities and Equipment.** If necessary for the purposes of the Interconnection Tariff and in the manner it describes, the Interconnecting Customer shall allow the Company access to the Company's equipment and the Company's facilities located on the Interconnecting Customer's or Customer's premises. To the extent that the Interconnecting Customer does not own all or any part of the property on which the Company is required to locate its equipment or facilities to serve the Interconnecting Customer under the Interconnection Tariff, the Interconnecting Customer shall secure and provide in favor of the Company the necessary rights to obtain access to such equipment or facilities, including easements if the circumstances so require. In addition to any rights and easements required by the Company in accordance with the above provision, the Interconnecting Customer shall obtain an executed Landowner Consent Agreement (Exhibit I) from the Landowner, unless the Company, in its sole discretion, waives this requirement.
- 6.4. (c) Right to Review Information.** The Company shall have the right to review and obtain copies of Interconnecting Customer's operations and maintenance records, logs, or other information such as, unit availability, maintenance outages, circuit breaker operation requiring manual reset, relay targets and unusual events pertaining to Interconnecting Customer's Facility or its interconnection with the Company EPS. This information will be treated as customer-confidential and only used for the purposes of meeting the requirements of Section 4.2.4 in the Interconnection Tariff.
- 7. Disconnection.**
- 7.1. Temporary Disconnection.**
- 7.1.(a) Emergency Conditions.** Company shall have the right to immediately and temporarily disconnect the Facility without prior notification in cases where, in the reasonable judgment of Company, continuance of such service to Interconnecting Customer is imminently likely to (i) endanger persons or damage property or (ii) cause a material adverse effect on the integrity or security of, or damage to, Company EPS or to the electric systems of others to which the Company EPS is directly connected. Company shall notify Interconnecting Customer promptly of the emergency condition. Interconnecting Customer shall notify Company promptly when it becomes aware of an emergency condition that affects the Facility that may reasonably be expected to affect the Company EPS. To the extent information is known, the notification shall describe the emergency condition, the extent of the damage or deficiency, or the expected effect on the operation of both Parties' facilities and operations, its anticipated duration and the necessary corrective action.

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- 7.1.(b) Routine Maintenance, Construction and Repair.** Company shall have the right to disconnect the Facility from the Company EPS when necessary for routine maintenance, construction and repairs on the Company EPS. The Company shall provide the Interconnecting Customer with a minimum of seven calendar days planned outage notification consistent with the Company's planned outage notification protocols. If the Interconnecting Customer requests disconnection by the Company at the PCC, the Interconnecting Customer will provide a minimum of seven days' notice to the Company. Any additional notification requirements will be specified by mutual agreement in the Interconnection Service Agreement. Company shall make an effort to schedule such curtailment or temporary disconnection with Interconnecting Customer.
- 7.1.(c) Forced Outages.** During any forced outage, Company shall have the right to suspend interconnection service to effect immediate repairs on the Company EPS; provided, however, Company shall use reasonable efforts to provide the Interconnecting Customer with prior notice. Where circumstances do not permit such prior notice to Interconnecting Customer, Company may interrupt Interconnection Service and disconnect the Facility from the Company EPS without such notice.
- 7.1.(d) Non-Emergency Adverse Operating Effects.** The Company may disconnect the Facility if the Facility is having an adverse operating effect on the Company EPS or other Customers that is not an emergency, and the Interconnecting Customer fails to correct such adverse operating effect after written notice has been provided and a maximum of 45 days to correct such adverse operating effect has elapsed.
- 7.1.(e) Modification of the Facility.** Company shall notify Interconnecting Customer if there is evidence of a material modification to the Facility and shall have the right to immediately suspend interconnection service in cases where such material modification has been implemented without prior written authorization from the Company.
- 7.1.(f) Re-connection.** Any curtailment, reduction or disconnection shall continue only for so long as reasonably necessary. The Interconnecting Customer and the Company shall cooperate with each other to restore the Facility and the Company EPS, respectively, to their normal operating state as soon as reasonably practicable following the cessation or remedy of the event that led to the temporary disconnection.
- 7.2. Permanent Disconnection.**
- 7.2.(a)** The Interconnecting Customer has the right to permanently disconnect at any time with 30 days written notice to the Company.
- 8. Metering.** Metering of the output from the Facility shall be conducted pursuant to the terms of the Interconnection Tariff.
- 9. Assignment.** Except as provided herein, Interconnecting Customer shall not voluntarily assign its rights or obligations, in whole or in part, under this Agreement without Company's written consent. Any assignment Interconnecting Customer purports to make without Company's written consent shall not be valid. Company shall not unreasonably withhold or delay its consent to Interconnecting Customer's assignment of this Agreement. Notwithstanding the above, Company's consent will not be required for any assignment made by Interconnecting Customer to an Affiliate or as collateral security in connection with a financing transaction. In all events, the Interconnecting Customer will not be relieved of its obligations under this Agreement unless, and until the assignee assumes in writing all obligations of this Agreement and notifies the Company of such assumption.
- 10. Confidentiality.** Company shall maintain confidentiality of all Interconnecting Customer confidential and proprietary information except as otherwise required by applicable laws and regulations, the Interconnection Tariff, or as approved by the Interconnecting Customer in the Simplified or Expedited/Standard Application form or otherwise.
- 11. Insurance Requirements.**
- 11.1. General Liability.**
- 11.1.(a)** In connection with Interconnecting Customer's performance of its duties and obligations under the Interconnection Service Agreement, Interconnecting Customer shall maintain, during the term of the Agreement, general liability insurance with a combined single limit of not less than:
- 11.1.(a)(i)** Five million dollars (\$5,000,000) for each occurrence and in the aggregate if the Gross Nameplate Rating of Interconnecting Customer's Facility is greater than five (5) MW.
- 11.1.(a)(ii)** Two million dollars (\$2,000,000) for each occurrence and five million dollars (\$5,000,000) in the aggregate if the Gross Nameplate Rating of Interconnecting Customer's Facility is greater than one (1) MW and less than or equal to five (5) MW;

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- 11.1.(a)(iii) One million dollars (\$1,000,000) for each occurrence and in the aggregate if the Gross Nameplate Rating of Interconnecting Customer's Facility is greater than one hundred (100) kW and less than or equal to one (1) MW;
- 11.1.(a)(iv) Five hundred thousand dollars (\$500,000) for each occurrence and in the aggregate if the Gross Nameplate Rating of Interconnecting Customer's Facility is greater than ten (10) kW and less than or equal to one hundred (100) kW, except for as provide below in subsection 11.1(b).
- 11.1.(b) Pursuant to 220 CMR §18.03(2), no insurance is required for Interconnecting Customers with facilities eligible for Class 1 Net Metering (facilities less than or equal to sixty (60) kW). However, the Company recommends that the Interconnecting Customer obtain adequate insurance to cover potential liabilities.
- 11.1.(c) Any combination of General Liability and Umbrella/Excess Liability policy limits can be used to satisfy the limit requirements stated above.
- 11.1.(d) The general liability insurance required to be purchased in this Section 11 may be purchased for the direct benefit of the Company and shall respond to third party claims asserted against the Company (hereinafter known as "Owners Protective Liability"). Should this option be chosen, the requirement of Section 11.2(a) will not apply but the Owners Protective Liability policy will be purchased for the direct benefit of the Company and the Company will be designated as the primary and "Named Insured" under the policy.
- 11.1.(e) The insurance hereunder is intended to provide coverage for the Company solely with respect to claims made by third parties against the Company.
- 11.1.(f) In the event the Commonwealth of Massachusetts, or any other governmental subdivision thereof subject to the claims limits of the Massachusetts Tort Claims Act, G.L. c. 258 (hereinafter referred to as the "Governmental Entity") is the Interconnecting Customer, any insurance maintained by the Governmental Entity shall contain an endorsement that strictly prohibits the applicable insurance company from interposing the claims limits of G.L. c. 258 as a defense in either the adjustment of any claim, or in the defense of any lawsuit directly asserted against the insurer by the Company. Nothing herein is intended to constitute a waiver or indication of an intent to waive the protections of G.L. c. 258 by the Governmental Entity.
- 11.1.(g) Notwithstanding the requirements of section 11.1(a) through (f), insurance for certain Governmental Entity facilities may be provided as set forth in section 11.1(g)(i) and (ii) below. Nothing herein changes the provision in subsection 11.1(a)(iv) that exempts Class 1 Net Metering facilities (less than or equal to 60 kW) from the requirement to obtain insurance. In addition, nothing shall prevent the Governmental Entity from obtaining insurance consistent with the provisions of subsection 11.1(a) through (f), if it is able and chooses to do so.
- 11.1.(g)(i) For solar photovoltaic (PV) facilities with a Gross Nameplate Rating in excess of 60 kW up to 500 kW, the Governmental Entity is not required to obtain liability insurance. Any liability costs borne by the Company associated with a third-party claim for damages in excess of the claims limit of the Massachusetts Tort Claims Act, M.G.L. c. 258, and market-based premium-related costs, if any, borne by the Company associated with insurance for such third-party claims shall be recovered annually on a reconciling basis in Company rates in a manner that shall be reviewed and approved by the Department.
- 11.1.(g)(ii) For (a) PV facilities with a Gross Nameplate Rating in excess of 500 kW up to 5 MW, (b) wind facilities with a Gross Nameplate Rating in excess of 60 kW up to 5 MW, and (c) highly efficient combined heat and power facilities with a Gross Nameplate Rating of in excess of 60 kW up to 5 MW, the Governmental Entity is not required to obtain liability insurance, subject to the requirements of the following paragraph.

The Company shall either self-insure for any risk associated with possible third-party claims for damages in excess of the Massachusetts Tort Claims Act limit, or obtain liability insurance for such third-party claims, and the Company is authorized to charge and collect from the Governmental Entity its pro-rata allocable share of the cost of so doing, plus all reasonable administrative costs. The coverage and cost may vary with the size and type of facility, and may change (increase or decrease) over time, based on insurance market conditions, and such cost shall be added to, and paid for as part of the Governmental Entity's electric bill.

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- 11.2. Insurer Requirements and Endorsements.** All required insurance shall be carried by reputable insurers qualified to underwrite insurance in Massachusetts having a Best Rating of "A-". In addition, all insurance shall:
- 11.2.(a) Include Company as an additional insured;
 - 11.2.(b) Contain a severability of interest clause or cross-liability clause;
 - 11.2.(c) Provide that Company shall not incur liability to the insurance carrier for payment of premium for such insurance; and
 - 11.2.(d) Provide for thirty (30) calendar days' written notice to Company prior to cancellation, termination, or material change of such –insurance;
 - 11.2.(e) Provided that to the extent the Interconnecting Customer is satisfying the requirements of subpart (d) of this paragraph by means of a presently existing insurance policy, the Interconnecting Customer shall only be required to make good faith efforts to satisfy that requirement and will assume the responsibility for notifying the Company as required above.
 - 11.2.(f) If the requirement of clause (a) in the paragraph above prevents Interconnecting Customer from obtaining the insurance required without added cost or due to written refusal by the insurance carrier, then upon Interconnecting Customer's written Notice to Company, the requirements of clause (a) shall be waived.

- 11.3. Evidence of Insurance.** Evidence of the insurance required shall state that coverage provided is primary and is not in excess to or contributing with any insurance or self-insurance maintained by Interconnecting Customer.

The Interconnecting Customer is responsible for providing the Company with evidence of insurance in compliance with the Interconnection Tariff on an annual basis.

Prior to the Company commencing work on System Modifications, and annually thereafter, the Interconnecting Customer shall have its insurer furnish to the Company certificates of insurance evidencing the insurance coverage required above. The Interconnecting Customer shall notify and send to the Company a certificate of insurance for any policy written on a "claims-made" basis. The Interconnecting Customer will maintain extended reporting coverage for three years on all policies written on a "claims-made" basis.

In the event that an Owners Protective Liability policy is provided, the original policy shall be provided to the Company

- 11.4. Self Insurance.** If Interconnecting Customer has a self-insurance program established in accordance with commercially acceptable risk management practices. Interconnecting Customer may comply with the following in lieu of the above requirements as reasonably approved by the Company:
- 11.4.(a) Interconnecting Customer shall provide to Company, at least thirty (30) calendar days prior to the Date of Initial Operation, evidence of such program to self-insure to a level of coverage equivalent to that required.
 - 11.4.(b) If Interconnecting Customer ceases to self-insure to the standards required hereunder, or if Interconnecting Customer is unable to provide continuing evidence of Interconnecting Customer's financial ability to self-insure, Interconnecting Customer agrees to promptly obtain the coverage required under Section 11.1.
 - 11.4.(c) This section shall not allow any Governmental Entity to self-insure where the existence of a limitation on damages payable by a Government Entity imposed by the Massachusetts Tort Claims Act, G.L. c. 258, or similar law, could effectively limit recovery (by virtue of a cap on recovery) to an amount lower than that required in Section 11.1(a).
- 11.5.** All insurance certificates, statements of self-insurance, endorsements, cancellations, terminations, alterations, and material changes of such insurance shall be issued and submitted to the following:

National Grid
Attention: Risk Management
300 Erie Blvd West
Syracuse, NY 13202

- 12. Indemnification.** Except as the Commonwealth is precluded from pledging credit by Section 1 of Article 62 of the Amendments to the Constitution of the Commonwealth of Massachusetts, and except as the Commonwealth's cities and towns are precluded by Section 7 of Article 2 of the Amendments to the Massachusetts Constitution from pledging their credit without prior legislative authority, Interconnecting Customer and Company shall each indemnify, defend and hold the

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other, its directors, officers, employees and agents (including, but not limited to, Affiliates and contractors and their employees), harmless from and against all liabilities, damages, losses, penalties, claims, demands, suits and proceedings of any nature whatsoever for personal injury (including death) or property damages to unaffiliated third parties that arise out of or are in any manner connected with the performance of this Agreement by that Party except to the extent that such injury or damages to unaffiliated third parties may be attributable to the negligence or willful misconduct of the Party seeking indemnification.

13. **Limitation of Liability.** Each Party's liability to the other Party for any loss, cost, claim, injury, liability, or expense, including court costs and reasonable attorney's fees, relating to or arising from any act or omission in its performance of this Agreement, shall be limited to the amount of direct damage or liability actually incurred. In no event shall either Party be liable to the other Party for any indirect, incidental, special, consequential, or punitive damages of any kind whatsoever.
14. **Amendments and Modifications.** No amendment or modification of this Agreement shall be binding unless in writing and duly executed by both Parties.
15. **Permits and Approvals.** Interconnecting Customer shall obtain all environmental and other permits lawfully required by governmental authorities for the construction and operation of the Facility. Prior to the construction of System Modifications the Interconnecting Customer will notify the Company that it has initiated the permitting process. Prior to the commercial operation of the Facility the Interconnecting Customer will notify the Company that it has obtained all permits necessary. Upon request the Interconnecting Customer shall provide copies of one or more of the necessary permits to the Company.
16. **Force Majeure.** For purposes of this Agreement, "Force Majeure Event" means any event:
- 16.1. That is beyond the reasonable control of the affected Party; and
- 16.2. That the affected Party is unable to prevent or provide against by exercising commercially reasonable efforts, including the following events or circumstances, but only to the extent they satisfy the preceding requirements: acts of war or terrorism, public disorder, insurrection, or rebellion; floods, hurricanes, earthquakes, lightning, storms, and other natural calamities; explosions or fire; strikes, work stoppages, or labor disputes; embargoes; and sabotage. If a Force Majeure Event prevents a Party from fulfilling any obligations under this Agreement, such Party will promptly notify the other Party in writing, and will keep the other Party informed on a continuing basis of the scope and duration of the Force Majeure Event. The affected Party will specify in reasonable detail the circumstances of the Force Majeure Event, its expected duration, and the steps that the affected Party is taking to mitigate the effects of the event on its performance. The affected Party will be entitled to suspend or modify its performance of obligations under this Agreement, other than the obligation to make payments then due or becoming due under this Agreement, but only to the extent that the effect of the Force Majeure Event cannot be mitigated by the use of reasonable efforts. The affected Party will use reasonable efforts to resume its performance as soon as possible. In no event will the unavailability or inability to obtain funds constitute a Force Majeure Event.
17. **Notices.**
- 17.1. Any written notice, demand, or request required or authorized in connection with this Agreement ("Notice") shall be deemed properly given on the date actually delivered in person or five (5) Business Days after being sent by certified mail, e-mail or fax with confirmation of receipt and original follow-up by mail, or any nationally-recognized delivery service with proof of delivery, postage prepaid, to the person specified below:
- If to Company: **National Grid**
Attn: Distributed Generation
40 Sylvan Rd
Waltham, MA 02451
E-mail: Distributed.Generation@nationalgrid.com
- If to Interconnecting Customer: **Kearsarge Solar LLC**
Attn: Andrew Bernstein
480 Pleasant St, Suite B110
Watertown, MA 02472
E-mail: abernstein@kearsargeenergy.com
Phone: (617)393-4222
- 17.2. A Party may change its address for Notices at any time by providing the other Party Notice of the change in accordance with Section 17.1.

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- 17.3. The Parties may also designate operating representatives to conduct the daily communications, which may be necessary or convenient for the administration of this Agreement. Such designations, including names, addresses, email addresses, and phone numbers may be communicated or revised by one Party's Notice to the other.
18. Default and Remedies.
- 18.1. Defaults. Any one of the following shall constitute "An Event of Default."
- 18.1.(a) One of the Parties shall fail to pay any undisputed bill for charges incurred under this Agreement or other amounts which one Party owes the other Party as and when due, any such failure shall continue for a period of thirty (30) days after written notice of nonpayment from the affected Party to the defaulting Party, or
- 18.1.(b) One of the Parties fails to comply with any other provision of this Agreement or breaches any representation or warranty in any material respect and fails to cure or remedy that default or breach within sixty (60) days after notice and written demand by the affected Party to cure the same or such longer period reasonably required to cure (not to exceed an additional 90 days unless otherwise mutually agreed upon), provided that the defaulting Party diligently continues to cure until such failure is fully cured.
- 18.2. Remedies. Upon the occurrence of an Event of Default, the affected Party may at its option, in addition to any remedies available under any other provision herein, do any, or any combination, as appropriate, of the following:
- 18.2.(a) Continue to perform and enforce this Agreement;
- 18.2.(b) Recover damages from the defaulting Party except as limited by this Agreement;
- 18.2.(c) By written notice to the defaulting Party terminate this Agreement;
- 18.2.(d) Pursue any other remedies it may have under this Agreement or under applicable law or in equity.
19. **Entire Agreement.** This Agreement, including any attachments or appendices, is entered into pursuant to the Interconnection Tariff. Together the Agreement and the Interconnection Tariff represent the entire understanding between the Parties, their agents, and employees as to the subject matter of this Agreement. Each Party also represents that in entering into this Agreement, it has not relied on any promise, inducement, representation, warranty, agreement or other statement not set forth in this Agreement or in the Company's Interconnection Tariff.
20. **Supersedence.** In the event of a conflict between this Agreement, the Interconnection Tariff, or the terms of any other tariff, Exhibit or Attachment incorporated by reference, the terms of the Interconnection Tariff, as the same may be amended from time to time, shall control. In the event that the Company files a revised tariff related to interconnection for Department approval after the effective date of this Agreement, the Company shall, not later than the date of such filing, notify the signatories of this Agreement and provide them a copy of said filing.
21. **Governing Law.** This Agreement shall be interpreted, governed, and construed under the laws of the Commonwealth of Massachusetts without giving effect to choice of law provisions that might apply to the law of a different jurisdiction.
22. **Non-waiver.** None of the provisions of this Agreement shall be considered waived by a Party unless such waiver is given in writing. The failure of a Party to insist in any one or more instances upon strict performance of any of the provisions of this Agreement or to take advantage of any of its rights hereunder shall not be construed as a waiver of any such provisions or the relinquishment of any such rights for the future, but the same shall continue and remain in full force and effect.
23. **Counterparts.** This Agreement may be signed in counterparts.
24. **No Third Party Beneficiaries.** This Agreement is made solely for the benefit of the Parties hereto. Nothing in the Agreement shall be construed to create any rights in or duty to, or standard of care with respect to, or any liability to, any person not a party to this Agreement.
25. **Dispute Resolution.** Unless otherwise agreed by the Parties, all disputes arising under this Agreement shall be resolved pursuant to the Dispute Resolution Process set forth in the Interconnection Tariff.
26. **Severability.** If any clause, provision, or section of this Agreement is ruled invalid by any court of competent jurisdiction, the invalidity of such clause, provision, or section, shall not affect any of the remaining provisions herein.
27. **Signatures.** IN WITNESS WHEREOF, the Parties hereto have caused two (2) originals of this Agreement to be executed under seal by their duly authorized representatives.

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Kearsarge Solar LLC:

Massachusetts Electric Company d/b/a National Grid:

Name: Andrew S. Bernstein

Name: Alex Kuriakose

Title: Manager

Title: Lead Engineer

Date: 7/26/2016

Date: 08-11-2016

Signature: Andrew S. Bernstein

Signature: Alex Kuriakose

Exhibit G – Interconnection Service Agreement**Attachment 1: Description of Facilities, including demarcation of Point of Common Coupling**

Kearsarge Solar LLC has proposed a 499kW (AC) PV generation system located at 25 Pumpkin Hollow Road, Lot 1, Great Barrington (Egremont), MA 01230. The proposed Facility is an Independent Power Producer (“IPP”). The Facility will interconnect to the National Grid electric system via the Risingdale (#1109) substation 13.8kV distribution feeder 1109W3.

“Point of Interconnection” or “POI”:

The POI is Pole 18-3 on Pumpkin Hollow Road in Great Barrington.

a. Description of proposed design/configuration: The three-phase 499kW photovoltaic generating system consists:

- Seventeen (17) UL 1741 / IEEE 1547 certified 28 kWac, Solectria model PVI-28TL inverters rated 28 kWac, 3PH, 4W, 480 Vac output voltage, NEMA 3R enclosures, and:
- One (1) UL 1741 / IEEE 1547 certified 23 kWac, Solectria model PVI-23TL inverter rated 23 kWac, 3PH, 4W, 480 Vac output voltage, NEMA 3R enclosures, and connecting to:
- Two (2) PV combiner panel-boards, Eaton, rated 480 V, 3PH, 4W, NEMA 3R with 600 A main lugs (MLO) and nine (9) 50 A, 3P, 35 kAIC, type FD branch circuit breakers, with each panel-board connecting to nine (9) inverter outputs, and then connecting to:
- One (1) AC main switchboard, Eaton IFS, rated 1,600 A, 480 V, 3PH, 4W, NEMA 3R with 800 A, 3P, 65 kAIC main circuit breaker, and two (2) 450 A, 3P, 65 kAIC branch circuit breakers connecting the two (2) combiner panel-boards; and with one (1) 50 A, 3P, 35 kAIC branch circuit breaker connecting a separately located zig-zag grounding transformer rated 15 kVA, 480 V, impedance (Z) of 5.75% and X/R of ~4, and
- One (1) 15 A, 2P, 65 kAIC branch circuit breaker tapped ahead of the main circuit breaker and connecting one (1) integral 5 kVA step down transformer to a 120/240 V panel-board for local control and convenience power. The output of the switchboard then connects to:
- One (1) IC-owned pad mounted transformer, ERMCO or equal, rated 500 kVA, 480/277 V Yg secondary to 13.8/7.97 kV Yg primary, 5.75 percent impedance (Z), with C14 Bay-O-Net and ELSP primary fuses rated 250 A, primary output switch, and 200 A dead front loop feed bushings with primary elbow surge arresters rated 8.4 kV MCOV. This then connects to:
- One (1) IC-owned pole mounted, gang-operated load break disconnect switch, S&C model ED703R4-B-S10, rated 15 kV, 600 A, 65 kAIC, 95 kV BIL with (3) surge arresters rated 8.4 kV MCOV. Switch shall be lockable, with visible break, and available to the Company 24/7, and located on an IC-installed riser pole at the Point of Common Coupling (“PCC”) (“Generator Disconnect Switch”).

b. Metering: Interconnection Customer is proposing to install the proposed system behind a new bidirectional pole mounted primary meter, installed on the utility pole 18-33 on Pumpkin Hollow Road in Great, owned and maintained by National Grid.

c. PCC: Point of Common Coupling (“PCC”) for Lot 1 will be the load side of the Company’s pole mounted primary metering, which will then be tied into the Company’s pole top fuses and load break switch.

The Facility will export power beyond the PCC onto Company’s Electric Power System (“EPS”), has no significant parasitic load, and is therefore classified as an Independent Power Producer (“IPP”).

Attachment 2: Description of System Modifications

This application is one of a group of 2 applications for a total of 998kW submitted by Kearsarge Solar, LLC and studied together (“Group”). The Group includes: MA-19734685 (this Facility, 499kW) and MA-19735096 (499kW).

National Grid’s system modifications required for the interconnection of the Facility, including any common system modifications with the Group, installation of 998kW (AC) project are as follows (collectively “System Modifications”):

On the Interconnecting Customer's (or other private) property:

Facility specific system design at the time the study was performed, the requirements for MA-19734685:

- Install approximately 200’ 1/0 AL circuit feet of 3-phase overhead with poles and framing
- Install three (3) 1Ph 40K fuse cutouts
- Install one (1) new Load Break Switch
- Install one (1) pole-mounted primary revenue metering assembly

Exhibit G – Interconnection Service Agreement***Common System Modifications required for MA-19734685 & MA-19735096:******On the Company's distribution feeder:***

- Replacing the existing (3) 65K fuse cutouts at Pole 18-13 Pumpkin Hollow Rd with solid disconnect switches
- Replacing the existing (3) 25K fuses at P18 Pumpkin Hollow Rd with (3) 65K fuses
- Replacing the existing (3) 100K fuses on P63 Egremont Plain Rd, Pumpkin Hollow Rd. tap with a recloser.

At the Company's Substation:

- Installation of 3V0 protection at the 23kV bus at T#4 utilizing the existing SEL351 relay and program the spare output 104 for 59N function and replace the feeder voltage regulator control.
- In addition, a new station regulator setting request will be issued for the Risingdale 1109W3 feeder.

It will be the responsibility of the Interconnecting Customer, at its sole cost and expense, to secure and obtain in favor of itself and the Company, the following: any and all rights, consents, permits, approvals, and easements (free and clear from any encumbrances), as are required for the Company's System Modifications on any Interconnecting Customer-owned property or any third-party owned property ("Third Party Rights and Approvals"). The Interconnecting Customer shall use the Company's standard form when obtaining all Third Party Rights and Approval, as applicable. The Company will seek to obtain, at the Interconnecting Customer's sole cost and expense, any and all rights, consents, permits, approvals, and easements for the System Modifications on any Company owned property or within any public roadway as the Company determines necessary in its sole discretion ("Other Rights and Approvals"; together with Third Party Rights and Approvals referred to as "System Modification Required Approvals"). The Interconnecting Customer will fully cooperate with the Company in obtaining the Other Rights and Approvals. The Company shall not be required to accept any System Modification Required Approvals that are not in form or on terms satisfactory to the Company in its sole discretion, or that impose additional liabilities or costs on the Company. The Company shall not be required to appeal or challenge the denial of any System Modification Required Approvals or the imposition of any unsatisfactory term or condition. The Company shall not be obligated to commence the construction of the System Modifications unless and until it has received all System Modification Required Approvals in accordance with this provision, and Sections 6.4 and 15 of this Agreement, above, and the Company's Terms and Conditions for Distribution Service, tariff M.D.P.U. No. 1248, as amended from time to time.

Attachment 3: Costs of System Modifications and Payment Terms

The total System Modification costs for the Group are presently estimated to be: \$348,448 +/- 25% ("Total System Modification Costs"). At present, the estimated costs for the System Modification detailed in Attachment 2 for this Facility ("Facility System Modification Costs") are **\$174,126 +/- 25%** which is itemized as:

- Total cost of system modifications on the Interconnecting Customer's (or other private) property (MA-19734685) and the Company's distribution System required as mentioned in attachment 2 above: **\$57,300** (includes capital, removal, and O&M costs).
- Total cost of common system modifications on the Company's distribution & substation system required for MA-19734685 & MA-19735096 as mentioned in attachment 2 above: \$161,500 (includes capital, removal, and O&M costs). The cost for this modification will be shared on a pro-rata basis between MA-19734685 & MA-19735096. The MA-19734685 application share will be 50% of \$161,500 or **\$80,750**.
- Cost of Field Verification & Witness testing, Engineering Review, Implementation of protective devices settings Compliance Verification and EMS Integration: \$24,200. This cost will be shared on a pro-rata basis between MA-19734685 & MA-19735096. The MA-19734685 application share will be 50% of \$24,200 or **\$12,100** (excluding tax liability)
- Tax gross-up adder: **\$23,976** (*A 2016 tax rate of 17.38% is expected to apply to contributions in aid of construction ("CIAC") payments received by Massachusetts Electric Company from the Interconnecting Customer, and a 2016 tax rate of 13.18% is expected to apply to CIAC payments received by New England Power Company for interconnections placed in service prior to 2018. The calculation of the tax gross-up adder is included in this cost estimate on the basis of tax guidance published by the Internal Revenue Service, but tax rates and decisions are ultimately subject to IRS discretion. By signing this agreement, the Interconnecting Customer understands and agrees that the tax has been estimated for convenience and that the Interconnecting Customer remains liable for all tax due on CIAC payments, payable upon the Company's demand.*)

Exhibit G – Interconnection Service Agreement

- o Note: The above mentioned MA-19734685 Kearsarge Solar, LLC - Lot #1 tax gross up adder includes \$1,304 attributed to \$7,500 cost of the System Impact study.

The Interconnecting Customer understands and agrees that, notwithstanding the costs detailed in this Agreement, if any other facility in the Group does not move forward with its interconnection to the Company's electric power system, the Facility's interconnection may need to be restudied, and the System Modification costs will be re-estimated for the Facility and for the Group, as determined by the Company in its sole discretion. In such a case, the Interconnecting Customer shall be responsible for the full amount of any study costs and increase in the costs in order to continue with the Facility's interconnection under this Agreement, including its pro-rata share of any re-estimated and re-allocated costs.

The system modification costs were developed by the Company with a general understanding of the project and based upon information provided by the Interconnecting Customer in writing and/or collected in the field. The cost estimates were prepared using historical cost data, data from similar projects, and other assumptions, and while they are presumed valid for 60 business days from the date of the Impact /Group Study, the Company reserves the right to adjust those estimated costs as authorized under this Agreement, the Tariff, or by law and to require the Interconnecting Customer to pay any such additional costs.

The Total System Modifications Costs and the Facility System Modification Costs do not include any costs for Third Party Rights and Approvals (as defined in Attachment 2) or any Verizon system modification costs and charges (and fees for services related thereto), for which the Interconnecting Customer may be directly responsible. These costs, to the extent applicable, are in addition to the Total System Modifications Costs and the Facility System Modification Costs and must be paid directly by the Interconnecting Customer to the appropriate third party.

Additional costs may be involved if the required pole work takes place in Telephone Company Maintenance Areas. These costs will be billed directly to the Interconnecting Customer from the Telephone Company.

Payment Terms:

The System Modifications will not be constructed until full payment of the Total System Modification Costs is received from the Group. The Facility System Modification Costs due from the Interconnecting Customer under this Agreement for application MA-19734685 shall be paid no later than in two scheduled payments as provided below:

- The first payment of 25% of the estimated cost or \$43,532 is due on or before **02/01/2017** (within 120 business days from the day of execution of this agreement). Upon receipt of the first payment, the Company will initiate the detailed design.
- The last payment of 75% of total cost or \$130,594 is due no later than 120 business days after the first payment is received.
- The Company is not required to begin construction until all payments are received.
- If the Interconnecting Customer requires a Work Request for Company construction to interconnect the Facility, all work will be complete, and all costs associated with the Work Request will be paid in full.

Nothing herein shall prevent the Interconnecting Customer from making any payment, or the full payment, due to the Company earlier than the dates provided above. Funds received may be immediately expended or committed as determined by the Company in its sole discretion.

Attachment 4: Special Operating Requirements

1. Interconnecting Customer shall adhere to the following standards which are incorporated in their entirety by reference:
 - a. National Grid's Standards for Interconnecting Distributed Generation (M.D.P.U. 1248), available at: https://www.nationalgridus.com/non_html/shared_interconnectStds.pdf
 - b. Electric System Bulletin 750 "Specifications for Electrical Installations". ESB 750, available at: http://www.nationalgridus.com/non_html/shared_constr_esb750.pdf
 - c. Electric System Bulletin 756 "Requirements for Parallel Generation Connected to a National Grid-Owned EPS". ESB756C, available at: www.nationalgridus.com/non_html/shared_constr_esb756.pdf

Exhibit G – Interconnection Service Agreement**Attachment 7 - Appendix A: System Modifications Construction Schedule**

Total Duration: 17 months*

Milestone	Estimated duration	Responsible party
Start	First Payment	Customer
Review and accept construction plans for major interconnection equipment (e.g., pole(s), recloser(s), and equipment layout, etc.).	One (1) month	National Grid
Construct interconnection facilities.	Eight (8) Months	Customer
Design service connection facilities and distribution system modifications.*	(5) to seven (7) months	National Grid
Design substation upgrades	Eight (8) months	National Grid
Submit testing and control plan to National Grid.	One (1) month	Customer
Secure required permits/easements and petition for National Grid work.	Two (2) months	Customer & National Grid
Submit final payment.	As per ISA	Customer
Construct service connection facilities and distribution upgrades.* *	Two(2) months	National Grid
Outage planning and coordination	Two (2) months	National Grid
Construct substation upgrades	One (1) months	National Grid
Submit energization schedule to National Grid (needed 14 days before proposed energization of facility).	One (1) month	Customer
Complete all functional tests and verifications, including third-party electrical inspection.	Fifteen (15) days	Customer & National Grid
Facility in-service.	Five (5) days	Customer & National Grid
Submit as-built P.E.-certified drawings to National Grid (needed within 30 days after in-service date).	One (1) month	Customer

Above is an estimated construction schedule. This schedule is conceptual, and shows the duration of the facility's milestones from a "start-date" to an "in-service" date, in calendar days. This conceptual schedule is based upon assumptions and knowledge regarding the project, the site, and activities as of the date of the impact study. These estimations of construction time frames and total duration do not include any time that the Company's performance is on hold, delayed, or interrupted, including, without limitation, while waiting on information or on the performance of obligations by the Interconnecting Customer and/or third parties (including, without limitation, Verizon), as a result of unknown environmental and/or permitting issues, events of force majeure, and/or as a result of required transmission outages.

The start-date for this construction schedule is deemed to have occurred once : (1) the Interconnection Service Agreement ("ISA") has been executed (i.e., signed) by both National Grid ("Company") and the Interconnecting Customer ("Customer"); and (2) the first payment has been submitted by the Customer to the Company, provided , however, that the Company shall not be required to provide any services or order any equipment without receiving adequate payment therefore from the Interconnecting Customer nor will it be required to initiate any construction before it has received full payment from the Interconnecting Customer.

* * Milestones may be contingent on Verizon schedule and/or ISO-NE approval of outages. Customer is responsible to coordinate directly with Verizon. This schedule does not include any Design or Construction Time required by Verizon.

Exhibit G – Interconnection Service Agreement

2. Interconnecting Customer shall adhere to the requirements identified in the Screening e-mail dated 07/21/2015, and/or Impact Study, 03/29/2016.
3. Interconnecting Customer shall provide Compliance Documentation, including photographs, as requested by, and to the satisfaction of, the Company.
4. The generating system may only normally generate onto the 1109W3 feeder and National Grid's Regional Control Center must first give permission to the Interconnecting Customer to allow the operation of their system. The generator may not be allowed to operate with the local electrical power system (EPS) in an abnormal state. To ensure the safe and reliable operation of National Grid's EPS, National Grid may choose to disconnect the customer at the PCC when abnormal system conditions develop and/or circuit reconfiguration takes place on the EPS.
5. The Customer must clear all vegetation, grade the area, and provide a suitable means by which the Company can gain access its equipment to the Company's satisfaction and requirements.
6. Per section 6.4 of this agreement, Interconnecting Customer shall provide an external AC UTILITY DISCONNECT, accessible at all times by National Grid personnel.
7. Interconnecting Customer's AC UTILITY DISCONNECT switch shall be labeled "AC UTILITY DISCONNECT".
8. The required utility disconnect switch located outside, following section 6.4, shall be accessible to Company personnel at all times and shall be capable of being opened for isolation if switching is required. The switch shall be gang operated, have a visible break when open, be rated to interrupt the maximum generator output and be capable of being locked open, tagged and grounded on the Company side by Company personnel. The visible break requirement can be met by opening the enclosure to observe the contact separation. The Company shall have the right to open this disconnect switch in accordance with the Interconnection Tariff. The switch has to be installed at the DR output on the current carrying lines. Shunt mechanisms are not permitted.
9. If the AC UTILITY DISCONNECT switch is not adjacent to the meter and/or PCC, Interconnecting Customer shall provide a permanent plaque locating the switch.
10. All meters must be clearly labeled so as to be able to differentiate between the customer owned production meter and National Grid's utility revenue meter. The utility disconnect switch shall clearly read "Utility Disconnect Switch" so it is clear which of the multiple disconnects is the utility disconnect switch.
11. A permanent plaque or directory shall be installed at the revenue meter and at the PCC with a warning about the generator(s) installed. If the utility external disconnect switch is not adjacent to the meter, a permanent plaque shall be provided at the meter locating the switch. Per section 6.4 of this agreement the (external) utility disconnect switch, shall be clearly labeled and accessible by National Grid personal at all times. All plaque as described in NEC 705.10, 705.12 (7), 690.56, 692.4 and 705.70 shall be installed when applicable.
12. All Interconnecting Customer-Owned meters shall be labeled "CUSTOMER-OWNED METER"
13. Interconnecting Customer shall install a permanent plaque or directory at the revenue meter and at the PCC with a warning about the generator(s) installed.
14. Interconnecting Customer shall be responsible for providing necessary easements and/or environmental and/or municipal permits, as requested by Company.
15. For systems greater than 60kW, Interconnecting Customer shall provide a means of communication to the National Grid revenue meter. This may be accomplished with an analog/POTS (Plain Old Telephone Service) phone line (capable of direct inward dial without human intervention or interference from other devices such as fax machines, etc.), or – in locations with suitable wireless service, a wireless meter. Feasibility of wireless service must be demonstrated by Interconnecting Customer, to the satisfaction of National Grid. If approved, a wireless-enabled meter will be installed, at the customer's expense. If and when National Grid's retail tariff provides a mechanism for monthly billing for this service, the customer agrees to the addition of this charge to their monthly electric bill. Interconnecting Customer shall have the option to have this charge removed, if and when a POTS phone line to National Grid's revenue meter is provided.

Exhibit G – Interconnection Service Agreement

16. For systems with redundant relaying, Company witness testing will be required. Customer shall develop, and provide for approval, a functional test procedure, including settings for relaying scheme. Witness test plan must be approved by Company prior to scheduling Company personnel for witness test.
17. Interconnecting Customer may only generate onto the feeder referenced in the Impact Study. National Grid's Regional Control Center must first give permission to the customer to allow the operation of their system.
18. Interconnecting Customer's protection scheme submitted for review must meet National Grid's specific protection requirements. Interconnecting Customer shall submit a PE stamped one-line, including relay settings, that meets the requirements specified within this document to National Grid for review and approval, before a Witness Test plan can be reviewed. Please refer to "Standard Process Completion Documentation Checklist", per Company's website for additional required documentation.
19. For photovoltaic (PV) interconnections, and in order to minimize the impact on the EPS and area customers, Interconnecting Customer shall maintain the reactive contribution of the Facility between a 99% leading and lagging power factor at the PCC. Interconnecting Customer shall not contribute to greater than a 3.0% change in voltage on the Company's EPS under any conditions.
20. Interconnecting Customer shall provide a large scale site one-line, to be installed near the PCC, identifying locations of all electrical equipment and their disconnecting means. This shall be developed with assistance from the Company.
21. A witness testing will be required. Customer must develop a functional test procedure along with relay settings for relaying scheme and must be submitted for review prior to scheduling witness test.

Attachment 5: Agreement between the Company and the Company's Retail Customer

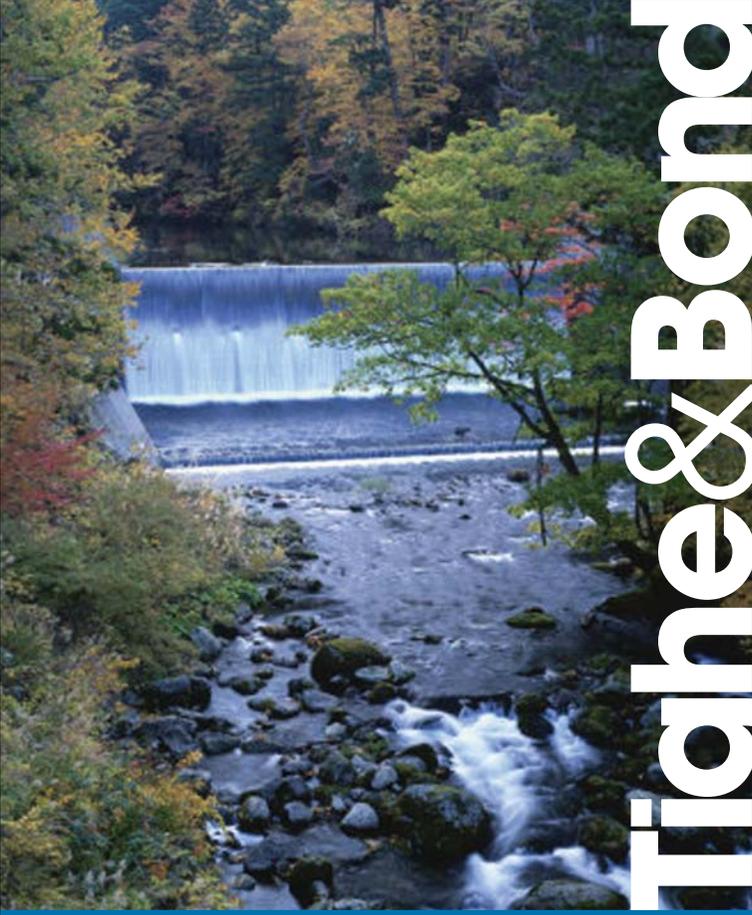
If the Company's Retail Customer (account holder) is not the owner (and/or operator) of the Facility, then Exhibit H - Agreement Between the Company and the Company's Retail Customer - shall be signed by the Company's Retail Customer and executed by the Company, and shall be considered part of this Interconnection Service Agreement. It shall be the responsibility of the Interconnecting Customer to notify the Company if the Exhibit H associated with this application changes.

Attachment 6: Landowner Consent Agreement

The Landowner Consent Agreement ("Exhibit I") is necessary to be executed where the land on which the DG facility will be located is owned by a party other than the Customer or Interconnecting Customer. The Landowner Consent Agreement is included here as an attachment to this Agreement. It is the Interconnecting Customer's responsibility to amend and update the Landowner Consent Agreement as appropriate.

Attachment 7: System Modifications Construction Schedule

System Modifications, as identified in Attachment 2 of this Agreement, Construction Schedule is provided on a separate sheet as



Tighe & Bond



September 22, 2016

Via Email

Kearsarge Solar LLC
Attn: Andrew Bernstein
480 Pleasant Street, Suite B110
Watertown, MA 02472

**Subject: Solar Array Decommissioning
Proposed Pumpkin Hollow Solar I +/- 1,100kW DC Arrays located at
Pumpkin Hollow Road, Egremont MA**

Dear Mr. Bernstein:

The purpose of this letter is to provide a plan to decommission the proposed 1,100 kW DC Solar Arrays to be constructed at Pumpkin Hollow Road, Egremont, MA and to restore the sites. The proposed work will involve the removal and restoration of the solar generation arrays.

Decommissioning Plan

The purpose of this Decommissioning Plan is to establish the approach to conduct decommissioning activities for the permanent closure of the Project. The facility is intended to operate for 20 or more years. This Plan describes the approach for removal and/or proper abandonment of facilities and equipment associated with the Project and describes anticipated land restoration activities to take place following the end of the Project's life.

The Decommissioning Plan covers the following elements.

1. Removal of solar module structures and all appurtenant above ground equipment;
2. Removal of overhead poles and above ground electrical lines within the Project site;
3. Removal of the on-site switchgear, as applicable;
4. Restoration of disturbed soil on the site to a condition consistent with the pre-development conditions;
5. Restoration or reclamation of Project roads to their pre-construction condition unless the land owner request to retain the improved roads for access throughout the land owner's property;

Documentation of the pre-construction condition of the project site, including photographic record, will be collected by the property owner.

Summary of Construction of the Solar Facility

The proposed Project includes the installation of approximately 1,100 kW of PV modules. The PV modules will convert sunlight into DC electricity. The PV-generated DC power will be collected from each of the multiple rows of PV modules and conveyed to inverters. The inverters will convert the DC power to AC power, which will then flow to a medium-voltage transformer that converts the output of the inverter to 13.8 kV where the power will be delivered to the regional electrical grid.

Construction of the proposed Project will include stabilizing the construction entrances/exits and roadways and establishing the parking and staging areas for vehicle and equipment storage/laydown and maintenance. The laydown areas will be used for pre-assembly of components and materials storage/staging. These areas will also provide construction worker parking. The site access roads will remain in place for the operational phase of the Project. The solar array will have a perimeter fence with 7-foot-high chain link fencing with entry gates. The solar array will have a transformer and switchgear mounted on a poured in place concrete foundation.

PV modules to be installed will be ground-mounted in rows, two modules in Portrait orientation. Each row of PV modules will be mounted on posts (I-Beams) that are driven in the ground. The panels will be tilted 25 degrees and the front end of the southerly facing rows of PV modules will be 3.5 to 4 feet off of the ground surface. The back side of the rows of PV modules will be approximately 7 to 8 feet above the ground surface. Each row will be separated by approximately 12-15 feet to eliminate shading of one row upon next.

Prior to the installation of the rows of PV modules, tree trimming and clearing activities will be completed to create a shade free area to install the photovoltaic modules. Site preparation will be conducted in accordance with the plans submitted by the Owner and approved by the Town of Egremont.

Project Decommissioning and Recycling

The activities involved in the facility closure would depend on the expected future use of the site. The property owner has the option to request removal of the project, to purchase the project, or to renew the lease at the end of the 20-year term. Assuming the project will be removed, certain facility equipment and features may be left in place for future uses, such as roads, and drainage features. The key Project components to be affected by decommissioning activities are discussed below. In general, decommissioning would attempt to maximize the recycling of all facility components. The individual Project components to be decommissioned will be recycled to the maximum extent practicable or removed from the site and disposed of at an appropriately licensed disposal facility. The general decommissioning approach would be the same whether a portion of the Project or the entire Project would be decommissioned.

Decommissioning Preparation

The first step in the decommissioning process would be to assess existing site conditions and prepare the site for demolition.

Site decommissioning and equipment removal is anticipated to require 2 weeks. Therefore, access roads, fencing, electrical power, and other facilities will temporarily remain in place for use by the decommissioning workers until no longer needed. Demolition debris will be placed in temporary onsite storage area(s) pending final transportation and disposal and/or recycling according to the procedures listed below.

Permits and Approvals

Depending on the regulatory requirements at the time of decommissioning, permits or approvals may be required for the decommissioning activities. These approvals will likely at a minimum require demolition/building permit from the Town of Egremont. Appropriate applications for approvals and permits would be submitted and approved issued prior to decommissioning activities.

Erosion Control

Prior to commencement of decommissioning activities, erosion control measures would be implemented. The type and extent of these measures would be dictated by the regulatory requirements at the time of decommissioning.

Health and Safety

A Health and Safety Plan will be developed prior to decommissioning activities. The plan will be designed to ensure worker and public safety during decommissioning. A Health and Safety Manager will be assigned to the decommissioning activities to provide worker training and health and safety monitoring.

PV Equipment Removal and Recycling

During decommissioning, Project components that are no longer needed would be removed from the site and recycled or disposed of at an appropriately licensed disposal facility. Above ground portions of the PV module supports will be removed. Below ground portions of the PV module supports will be removed entirely where practical. Those supports that are more firmly anchored (e.g., such as embedded in bedrock) and cannot be pulled with a typical backhoe (John Deere 310 or similar) may be cut off and the remaining support left in place. The demolition debris and removed equipment may be cut or dismantled into pieces that can be safely lifted or carried with the onsite equipment being used. The debris and equipment will be processed for transportation and delivery to an appropriately licensed disposal facility or recycling center. Modules will be recycled in accordance with the current recycling program. No hazardous materials or waste will be used during operation of the solar facility, and disposal of hazardous materials or waste will not be required during decommissioning.

Power components

The inverters, transformers, and switch gear will be dismantled and recycled. The cast-in-place concrete foundation will be broken up, removed and recycled unless requested to remain in place by the property owner. The overhead equipment and conductors of the system will be removed and the poles and pole foundations will be removed. Aluminum and copper from the conductors will be recycled or removed from the site to an appropriately licensed disposal facility. After removal of the conductor, the underground conduit will be cut off three feet below the ground surface and will remain in place.

Roads

Access roads will remain in place to accomplish decommissioning at the end of the Project's life. At the time of decommissioning, if the property owner determines that some of these roads will be beneficial for future use of the site; those roads may remain after decommissioning. Roads that will not be used will be restored to be similar to pre-construction conditions (The area of the roads will be graded, consistent with existing land contours).

Fencing

Project site perimeter fencing may be removed at the end of the decommissioning project. Since the project site is not currently fenced, this includes removal of all posts, fencing material, gates etc. to return the site to pre-project condition. The property owner may choose to have the fence remain in place.

Site Restoration

Once removal of all Project equipment is complete, compacted portions of the site (area beneath the transformer pad and any removed access roads) will be fluffed with a backhoe bucket and graded level with existing contours. The areas to be backfilled include excavations that were created during the demolition of foundations and removal of gravel areas. Backfill will be with native onsite material. The vegetative cover of each array will be left in place and allowed to grow to natural, unmaintained conditions. We assume that at the time of removal of the

system, the vegetative cover will be in good condition. If, upon inspection, the vegetative cover of the area is not in good condition, a restoration will be prepared and submitted to the Owner for approval.

Future Land Use

While the decommissioning plan is based upon the site being returned to a condition consistent with preconstruction use, the actual activities involved in the facility closure would depend on the actual future use of the property by the owner. Certain facility equipment may be utilized for future uses, such as the electrical facilities, roads, and drainage features. Therefore, the actual extent of site closure activities would be determined at the time of the closure.

Decommissioning Cost

The scope of work includes the removal, recycling and disposal of system components. The cost estimates for disposal requirements are based on current costs and regulations. The majority of equipment and materials are recyclable. Labor and equipment represent the majority of the costs.

Assumptions:

- System equipment including Inverters, Transformers and Switchgear to be removed from their respective concrete pads and recycled or returned to their manufacturer for processing.
- Chain-link fencing to be removed and sold or recycled.
- PV Modules to be recycled.
- Racking system to be cut, stacked, and recycled.
- The concrete pads will be recycled or removed.
- AC and DC wiring that can be disconnected and removed from equipment and earth will be consolidated for recycling. Underground PVC conduit would be abandoned in place and is excluded.
- On site power poles and medium voltage wiring shall be removed.
- Reseeding as necessary.

The below cost estimate is based on labor costs at \$35/hour and market rate for equipment. Future cost is based on 2.0% annual escalator (Compound Amount Factor) for the expected 25-year useful life of the system.

Component / Activity	2016 Cost	2036 Cost
Labor Cost	\$13,200	\$17,778
Restore, Loam, and Seed	\$8,800	\$11,852
Equipment and Shipping	\$5,923	\$7,978
Scrap Value	(\$6,644)	(\$8,949)
Net Total:	\$21,279	\$28,660

Andrew Bernstein
Kearsarge Solar I LLC

Page 5
September 27, 2016

Should you have any questions or require additional information or further explanation of the project, please contact me by telephone at (774) 270-0834, or by email at mlotti@industriaeng.com.

Very truly yours,
Industria Engineering

A handwritten signature in black ink that reads "Michael S. Lotti". The signature is written in a cursive, flowing style.

Michael S. Lotti, LSP

Project Manager



Tighe & Bond



PLACEHOLDER FOR INSTALLER VERIFICATION



Tighe & Bond



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

9/9/2016

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Cross Insurance, Inc. - RI 376 Newport Avenue P. O. Box 4830 East Providence RI 02916	CONTACT NAME: Nikki Ramlogan PHONE (A/C. No. Ext): (401) 431-9200 E-MAIL ADDRESS: NRamlogane@crossagency.com		FAX (A/C. No): (401) 431-9201
	INSURER(S) AFFORDING COVERAGE INSURER A: The Hartford		NAIC #
INSURED Kearsarge Energy, LLC. Kearsarge Solar, LLC. 480 Pleasant St Ste B110 Watertown MA 02472	INSURER B :		
	INSURER C :		
	INSURER D :		
	INSURER E :		
	INSURER F :		

COVERAGES

CERTIFICATE NUMBER: CL169985052

REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input checked="" type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER:			02UENAY2531	5/15/2016	5/15/2017	EACH OCCURRENCE	\$ 1,000,000
							DAMAGE TO RENTED PREMISES (Ea occurrence)	\$ 300,000
							MED EXP (Any one person)	\$ 10,000
							PERSONAL & ADV INJURY	\$ 1,000,000
							GENERAL AGGREGATE	\$ 2,000,000
							PRODUCTS - COMP/OP AGG	\$ 2,000,000
								\$
B	AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> NON-OWNED AUTOS			02UENAX3470	5/15/2016	5/15/2017	COMBINED SINGLE LIMIT (Ea accident)	\$ 1,000,000
							BODILY INJURY (Per person)	\$
							BODILY INJURY (Per accident)	\$
							PROPERTY DAMAGE (Per accident)	\$
							\$	
B	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> EXCESS LIAB <input type="checkbox"/> DED <input checked="" type="checkbox"/> RETENTION \$ 10,000			02RHUAX0587	5/15/2016	5/15/2017	EACH OCCURRENCE	\$ 10,000,000
							AGGREGATE	\$ 10,000,000
							\$	
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below						PER STATUTE	OTH-ER
E.L. EACH ACCIDENT							\$	
E.L. DISEASE - EA EMPLOYEE							\$	
E.L. DISEASE - POLICY LIMIT							\$	

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Evidence of coverage for Kearsarge Solar, LLC

CERTIFICATE HOLDER

Town of Egremont
 P. O. BOX 368
 SOUTH EGREMONT, MA 01258

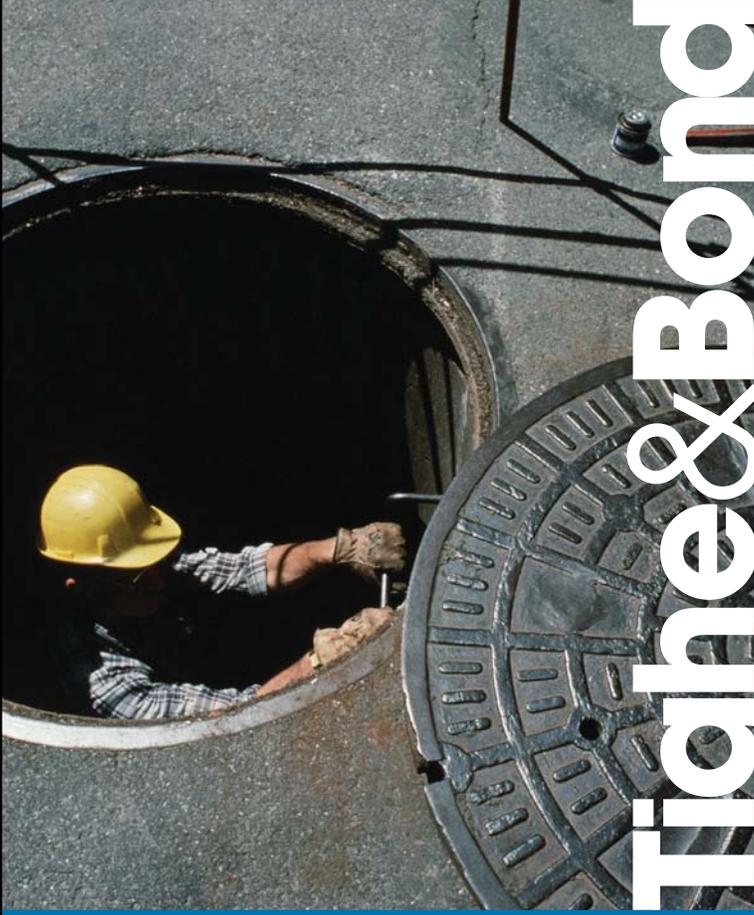
CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

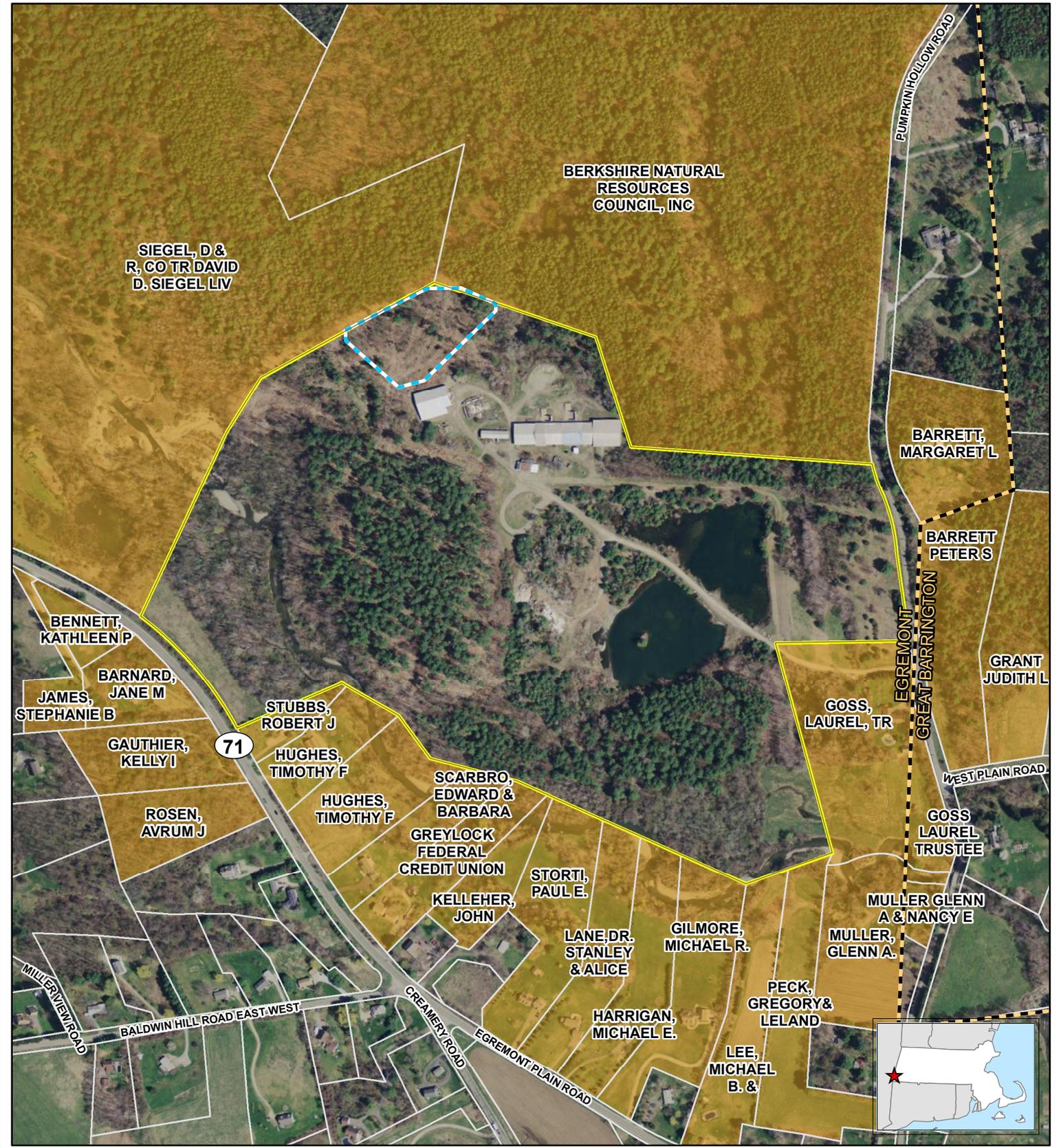
AUTHORIZED REPRESENTATIVE

Nikki Ramlogan/NR4

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Tight & Bond

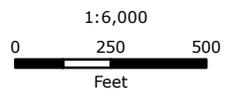


Legend

- Site Parcel
- Site Parcel
- Abutters
- Proposed Limit of Work
- Parcel Boundary



Based on MassGIS Color Orthophotography (2014).
 Egremont (2012) and Great Barrington (2017) Parcels Downloaded from MassGIS.



**FIGURE 4
 ABUTTERS**

29 Pumpkin Hollow Road
 Egremont, Massachusetts

October 2016

Office of the Board of Assessors

Town of Egremont

P.O. Box 368

South Egremont, Massachusetts 01258-0368

Email: assessors@egremont-ma.gov

413-528-0182 Ext. 14

Florence F. Browner, Member
Robin Goldberg, Member
Susan Turner, Member
Harald M. Scheid, Regional Tax Assessor

28 January 2016

The following are abutters within 300 feet of 29 Pumpkin Hollow Road, Egremont, MA (Map 2 Parcel 874.4), as requested by Kearsarge Solar LLC.

There are 8 properties and the fee is \$1.00 per property. Please send a check for \$8 payable to the Town of Egremont.

Map 1, Parcel 760.E
0 Pumpkin Hollow Road

Berkshire Natural Resources Council
20 Bank Row
Pittsfield, MA 01201

Map 2, Parcel 778.A
196 Egremont Plain Road

Siegel, D & R Ttees
c/o Rosemary Siegel
P O Box 477
South Egremont, MA 01258

Map 2, Parcel 874.2
9 Sky Farm Road

Barrett, William F III, et als
40 Locust Hill Road
Great Barrington, MA 01230

Map 2, Parcel 874.3
15 Sky Farm Road

Old Hickory Buildings LLC
900 Capt. Joe Fulgham Drive
Murfreesboro, TN 37129

Map 2, Parcel 874.5
14 Sky Farm Road

Barrett, William F III, et als
40 Locust Hill Road
Great Barrington, MA 01230

Map 2, Parcel 874.6
12 Sky Farm Road

Barrett, Margery, et als
66 Seekonk Cross Road
Great Barrington, MA 01230

Map 2, Parcel 874.7
10 Sky Farm Road

Barrett, Margery, et als
40 Locust Hill Road
Great Barrington, MA 01230

Map 2, Parcel 874.C
0 Pumpkin Hollow Road

Barrett, William F III, et als
40 Locust Hill Road
Great Barrington, MA 01230

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Town of Egremont

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Florence F. Browner, Member
Robin Goldberg, Member
Susan Turner, Member
Harald M. Scheid, Regional Tax Assessor

Respectfully Submitted,

Susan Turner - Florence F. Browner

Egremont Board of Assessors
Tuesday, February 2, 2016

Office of the Board of Assessors
Town of Egremont

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South Egremont, Massachusetts 01258-0368
Email: assessors@egremont-ma.gov
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Florence F. Browner, Member
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Harald M. Scheid, Regional Tax Assessor

28 January 2016

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There are 8 properties and the fee is \$1.00 per property. Please send a check for \$8 payable to the Town of Egremont.

Map 1, Parcel 760.E
0 Pumpkin Hollow Road

Berkshire Natural Resources Council
20 Bank Row
Pittsfield, MA 01201

Map 2, Parcel 760.B
40 Pumpkin Hollow Road

Barrett, Margaret L..
40 Locust Hill Road
Great Barrington, MA 01230

Map 2, Parcel 794
25 Pumpkin Hollow Road

Goss, Laurel, Trustee
25 Pumpkin Hollow Road
Great Barrington, MA 01230

Map 2, Parcel 874.A
0 Pumpkin Hollow Road

Barrett, William F III, et als
40 Locust Hill Road
Great Barrington, MA 01230

Map 2, Parcel 874.C
0 Pumpkin Hollow Road

Barrett, William F III, et als
40 Locust Hill Road
Great Barrington, MA 01230

Map 2, Parcel 874.1
1 Sky Farm Road

Barrett, William F III, et als
40 Locust Hill Road
Great Barrington, MA 01230

Map 2, Parcel 874.2
9 Sky Farm Road

Barrett, William F III, et als
40 Locust Hill Road
Great Barrington, MA 01230

Map 2, Parcel 874.8
4 Sky Farm Road

Barrett, William F III, et als
40 Locust Hill Road
Great Barrington, MA 01230

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Town of Egremont

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South Egremont, Massachusetts 01258-0368

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Respectfully Submitted,



Egremont Board of Assessors

Tuesday, February 2, 2016