



TOWN OF HENRIETTA Site Plan Application

APPLICATION NO. _____

PLANNING BOARD

OR ADMINISTRATIVE

DATE: 10/10/23

I (we) Tobin Henrietta Solar LLC of 318 Timothy Lane
Name of Applicant / Business Business Address (Number & Street)

Ontario, NY, 14519 hereby apply to the Planning Board for
Town, State, Zip

Site Plan Review OR Other: _____

on property located at 55 Tobin Road Rural Residential 190.02-1-48.21
(Street & Number) (Zoning District & Tax Account No.)

Previous Reviews, if any, Date: _____ Number: _____

DESCRIPTION OF PROPOSAL: _____

The proposed project is a 4 MW-DC, 3 MW-AC ground-mounted photovoltaic solar array that will be located at 55 Tobin Road Henrietta, NY. and constructed and operated by Sustainable Energy Developments Inc, D.B.A. GreenSpark Solar. The array will interconnect to the Rochester Gas & Electric (RG&E) utility grid, and will include approximately 6,912 modules on a ground mounted, pier driven racking system. The proposed installation would occupy approximately 14.6 acres of the 28.53-acre parcel, with an additional area of approximately 0.66 acres of access road outside the fence line. Ground disturbance would be limited to the pier driven posts of the racking system, the electrical trenches, parking/staging area, and the fence line. The power generated by the project is intended for Community Solar Array off-takers through a net metering agreement.

Applicant: Tobin Henrietta Solar LLC
318 Timothy Lane
Address: Ontario, NY, 14519

Phone #: [REDACTED]

Email: [REDACTED]

Property Owner: Mark and Linda Heintz
55 Tobin Road
Address: Henrietta, NY, 14677

Phone #: [REDACTED]

Email: [REDACTED]

Engineer/Architect: Fisher Associates
Address: 180 Charlotte St. Rochester, NY 14607

Phone #: [REDACTED]

Email: [REDACTED]

Business Owner: Sustainable Energy Developments Inc, D.B.A. GreenSpark Solar
318 Timothy Lane
Address: Ontario, NY, 14519

Phone #: [REDACTED]

Email: [REDACTED]

Applicant Signature:

Print Name: Kevin Schulte

**Statement of Applicant and Owner with Respect to Reimbursement
of Professional and Consulting Fees**

In conjunction with an application made to the Town of Henrietta, the undersigned states, represents and warrants the following:

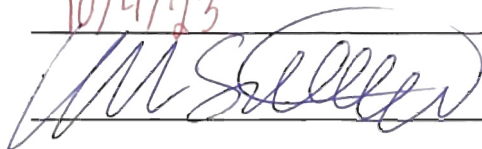
- 1) I/We am/are the applicant and owner with respect to an application to the Town of Henrietta.
- 2) I/We have been advised of, are aware of and agree to comply with the obligation to reimburse the Town of Henrietta for any and all professional and consulting fees incurred by the Town in conjunction with this and any other applications by me/us, including but not limited to engineering and/or legal fees, all as more fully set forth in the Henrietta Town Code.
- 3) I/We have been provided with, or have otherwise reviewed the Henrietta Town Code provisions related to the obligation to reimburse the Town with respect to professional and consulting fees, and agree to comply with the same.
- 4) I/We understand that this obligation shall not be dependent upon the approval or success of the application.
- 5) I/We further agree that in the event the Town of Henrietta is required to refer for collection an outstanding debt for such professional and/or consulting fees due to the Town of Henrietta, I/we shall be obligated to pay the reasonable attorney's fees incurred as a result of the Town's efforts to collect such fees. Reasonable attorney's fees shall also include any and all disbursements that may result from the commencement of litigation.
- 6) Each party to the application, including the applicant and the owner, shall be jointly and severally liable for all consulting and professional fees and expenses incurred in conjunction with the application.

Applicant: Tobin Henrietta Solar LLC

By: ~~Matthew Vanderbrook~~ Kevin Schulte

Title: ~~Director of Commercial Origination~~ CEO

Dated: 10/4/23

Signed: 

Owner: Mark and Linda Heintz

By: _____

Title: _____

Dated: 10/4/23

Signed:  / 



October 16, 2023

James W. Grunert, Chair
Town of Henrietta Planning Board
475 Calkins Road
Rochester, NY 14623

Dear Mr. Grunert and Members of the Planning Board,

Tobin Henrietta Solar LLC, a subsidiary of Sustainable Energy Developments, Inc. DBA GreenSpark Solar, is pleased to submit this application for Site Plan Review for the Tobin Henrietta Solar Project, a proposed 4 MW-DC, 3 MW-AC ground-mounted photovoltaic solar array to be located at 55 Tobin Road in the Town of Henrietta [Tax Parcel 190.02-1-48.21] within the Rural Residential zoning district. The project will be owned by Tobin Henrietta Solar LLC under a lease agreement with landowners Mark and Linda Heintz and constructed and operated by Sustainable Energy Developments, Inc. DBA GreenSpark Solar. The array will interconnect to the Rochester Gas & Electric utility grid, with approximately 6,912 modules on a ground mounted, pier driven racking system. The proposed array would occupy approximately 14.1 acres of the 28.53-acre parcel, with an additional area of approximately 0.66 acres of access road outside the fence line. Ground disturbance would be limited to the pier driven posts of the racking system, the electrical trenches, parking/staging area, and the fence line. The power generated by the project is intended for Community Solar Array off-takers through a net metering agreement.

Per § 295-73B of the Town of Henrietta Zoning Code, we understand that this proposal requires Site Plan Review and approval by the Town Planning Board. In parallel, the Town Board is reviewing our application for a Special Use Permit for this project, submitted 10/6/23, in accordance with §295-73D of the zoning code. In addition to this Letter of Intent, this application for site plan review and approval includes the following exhibits in satisfaction of the application requirements and Town Code:

- A) Site Plan Application Form with Signed Statement of Applicant and Owner with Respect to Reimbursement of Professional and Consulting Fees
- B) Application Fee (\$150) and Engineering Plan Review Charge (\$700) (both submitted to Amy Englert)
- C) Letter of Authorization from property owner
- D) 14 complete sets of folded, individually banded Site Plans
- E) Site Plan Checklist – Completed
- F) SWPPP
- G) Environmental Assessment Form (EAF)
 - a. SHPO Letter: Finding of No Effect
- H) Equipment Specification Sheets



- I) NYSDAM Notice of Intent, filed 10/12/23
- J) Electronic copy of the entire submission submitted to drawings@henrietta.org

We respectfully request to appear before the Town of Henrietta Planning Board at your regularly scheduled meeting on November 14, 2023 to present our proposal. If any further documentation or information is required please feel free to contact my colleague Brooke Mayer, Commercial Solar Developer at [REDACTED]
[REDACTED] We look forward to working with the Town of Henrietta to advance this project in support of the Town's land use and development goals, and in advancement of New York State's clean energy and climate agenda. Thank you for your time and attention.

Sincerely,

Matt Vanderbrook
Director of Commercial Origination



October 16, 2023

Steve Schultz, Town of Henrietta Supervisor
Town of Henrietta Town Board
475 Calkins Road
Rochester, NY 14623

Dear Mr. Schultz and Members of the Town Board,

We are submitting this **Incentive Zoning Application** per § 295-34.13 of the Town Code, in support of our Special Use Permit application for the Tobin Henrietta Solar project to be located at 55 Tobin Road in the Town of Henrietta (Tax Parcel 190.02-1-48.21) within the Rural Residential zoning district. The project will be owned by Tobin Henrietta Solar LLC, a subsidiary of GreenSpark Solar, under a lease agreement with landowners Mark and Linda Heintz and constructed and operated by Sustainable Energy Developments, Inc. DBA GreenSpark Solar. The array will interconnect to the Rochester Gas & Electric utility grid, with approximately 6,912 modules on a ground mounted, pier driven racking system. The proposed array would occupy approximately 14.1 acres of the 28.53-acre parcel, with an additional area of approximately 0.66 acres of access road outside the fence line. Ground disturbance would be limited to the pier driven posts of the racking system, the electrical trenches, parking/staging area, and the fence line. The power generated by the project is intended for Community Solar Array off-takers through a net metering agreement.

As part of our Special Use Permit Application submittal, we previously submitted a letter dated October 5, 2023 detailing our intent to secure an agricultural conservation easement per §295-73D(20) of the Town Code *Additional requirements for large-scale solar energy systems*, which requires that *"Agricultural conservation easements and/or deed restrictions, in a form acceptable to the Town, shall restrict nonagricultural activities on 75% of the total eligible farm acreage and shall be filed and recorded with the Monroe County Clerk's Office prior to the issuance of a building permit."* Under this provision, the corresponding preservation requirements would have been as follows:

Project Name	Address	Tax Parcel	Project Area (Acres)	Protected Farmland Required (Acres)
Tobin Henrietta Solar	55 Tobin Rd Henrietta, NY 14467-9720	190.02-1-48.21	14.76	44.28

In reviewing our initial Special Use Permit Application submission, the Town confirmed that because this project will not be developed on active farmland pursuant to §295-73A of the Town Code, this project would need to pursue a waiver / relief of area or dimensional requirements through the Town's Incentive Zoning Code (Article IXB). Accordingly, we are submitting an updated Incentive Zoning Application reflective of this approach. In the spirit of the Town's solar code, we initially explored the possibility of pursuing an agricultural conservation easement under the Rural Residential Incentive Zone Amenities §295-34.12A(1), however, the requirement to secure a conservation easement in perpetuity versus the life of the project rendered this an unviable alternative. Alternately, we propose the following:



- **Incentive(s) requested from the Town:** Waiver of area / dimensional requirements required under §295-73D(20) of the Town's solar code to secure an agricultural conservation easement across 44.28 acres, as provided for under § 295-34.11C(1), in exchange for sufficient qualifying amenities in accordance with § 295-34.11.
- **Amenity offered to the Town:** Monetary contribution of **\$50,000** to the Town of Henrietta to support the creation, maintenance, and/or enhancement of public parkland, trails, and/or recreational facilities under § 295-34.12A(5) or § 295-34.12C(3). We would like to work with the Town to identify a specific use for these funds, but as an example this contribution could support improvements or enhanced maintenance of nearby park/trail facilities such as Lookup Park, Martin Road Park, the Lehigh Valley Trail, or (farther afield) the Town's development and operation of the recently acquired Riverton Golf Course. This amenity would not otherwise result from the project without the granting of the incentive, as it does not serve any specific utility to the project's goals and is therefore not included within the project's base scope.
- **How the incentive and amenity help to implement the Town's land use goals and policies:**
 - In facilitating the development of this project which will deliver a clean, renewable source of energy to the RG&E utility grid, the requested incentive would support the Town of Henrietta's progress toward a sustainable community, as stated in the Town Sustainability Committee's Mission. This project will advance the Town of Henrietta as a model clean energy community, contributing directly toward New York State's ability to meet its distributed solar portfolio targets as mandated by the NYS Climate Leadership and Community Protection Act (Climate Act) signed into law in July 2019. The Climate Act requires New York to achieve 6,000 megawatts (MW) of distributed solar by 2025, and 10,000 MW by 2030, and a just transition to a clean energy economy that creates good paying jobs and fosters healthy communities. This is inherently a collective effort across New York State municipalities, and this project would position the Town of Henrietta as a key participant in this effort.
 - **2019 Comprehensive Land Use Plan:** The proposed amenity would advance Goal 3 of the Town's 2019 Update to the Comprehensive Land Use Plan, *Enhance Community Character*. Specifically, a monetary contribution to support the creation, maintenance, and/or enhancement of public parkland, trails, and/or recreational facilities will maintain the open space resources that contribute to Henrietta's heritage and diverse character. This contribution can also support the development of green infrastructure in the Town through the reduction of impervious surfaces, and re-establishment of natural buffers and drainage patterns on Town-owned lands.
 - **2016 Active Transportation Plan:** A monetary contribution to the Town to support the creation, maintenance, and/or enhancement of public parkland, trails, and/or recreational facilities could also support the Town's goal to provide a variety of transportation choices in the community including pedestrian pathways and shared-use trails.





We look forward to discussing this Incentive Zoning application with you in support of this project and the Town of Henrietta's land use and development goals.

Sincerely,

Kevin Schulte
CEO, GreenSpark Solar
Manager, Tobin Henrietta Solar LLC



Date Prepared: 10/4/23

**NYS Department of Agriculture and Markets – Agricultural and Markets Law §305(4)
Short Form Notice of Intent to Undertake an Action Within an Agricultural District for
Solar Energy Projects Affecting Less than 30 acres of Mineral Soil Groups (MSG) 1 - 4**

Instructions: The purpose of this form is to provide NYSERDA with the necessary information required to submit a Notice of Intent to the Department of Agriculture and Markets (NYSAGM) for the Project Developer. Please populate all fields in this form, and provide additional requested documents/maps in a single file with a maximum file size of 20 MB, and return to NYSERDA, with a copy to commercial.industrialpv@nyserda.ny.gov. This complete submission is required to be uploaded as part of your NY-Sun Commercial/Industrial application. **If the proposed project impacts more than 30 acres of MSG 1-4 or is stacked¹ with other projects on the same parcel impacting more than 30 acres of MSG 1-4, please refer to the Notice of Intent Long Form. NYSERDA has provided Contractors with mapping resources ([the interactive map is available here](#)) to assess the level of overlap that their Facility Area is expected to have on MSG 1-4. All submissions on or after March 22, 2023 must use this form version.**

I. Project Maps

Provide, as part of your response package to NYSERDA, maps showing the site of the proposed action including the following:

- The proposed solar array layout of the project on an aerial image.
- Label or annotate the map with all affected landowners, including tax map numbers, surrounding land uses, and type(s) of agricultural production.
- Label all points of interconnection with the public utilities, all transmission lines associated with the project, equipment storage or mobilization pads/construction areas, and access roads/driveways
- Include any siting considerations that determined the location of the solar array, such as wetlands, grading restrictions, municipal setback or zoning requirements, landowner requests, etc.
- A copy of the NRCS Web Soil Survey map of all affected parcels, including the breakdown of soils impacted (MSG 1 - 4)².

II. Project Description and Agricultural Setting:

Project Name: Tobin Henrietta Solar Project
Public Entity: NYS Energy and Research Development Authority
Project Company: Tobin Henrietta Solar LLC
Project Developer: Sustainable Energy Developments INC., D.B.A. GreenSpark So

Project Contact Information:

Name: Matthew Vanderbrook Title: Director of Commercial Origir Company: GreenSpark Solar
Phone Number: [REDACTED] Email: [REDACTED]

¹ Stacked projects are defined as multiple projects greater than 1MWdc that are abutting and located on parcels of real property that are owned by the same landowner(s). Stacked projects will undergo aggregated review. The impacted MSG 1-4 acreage will be aggregated across all stacked projects to determine the required mitigation.

² Mineral Soils Group (MSG) 1-4 are defined by the NYS Department of Agriculture and Markets for each soil type in each county identified by the United States Department of Agriculture, and are used to classify the state's agricultural lands based upon soil productivity and capability. Each county in New York State has a listing of all soil types present in the county that is associated with a specific mineral soil group, MSG 1 through 10.

Contact Information of other individuals authorized to respond to Agriculture & Markets inquiries:

Name: Brooke Mayer Title: Commercial Solar Developer Company: GreenSpark Solar
 Phone Number: [REDACTED] Email: [REDACTED]

Project Address: 55 Tobin Road Henrietta, NY 14467 County: Monroe
 Authority Having Jurisdiction: Town of Henrietta Agricultural District: Monroe County Easter
 Is this project stacked with another project?: Yes No Number of Points of Interconnection?: 1
 Total Parcel Size: 28.53 acres Total Facility Area³: 14.76 acres
 Total Impacted MSG 1-4 acres within the Facility Area: 7.8 acres

Fill out the below table for each Point of Interconnection. As an example, if there is only one Point of Interconnection, fill out only Facility 1. If the project has 3 separate Points of Interconnection, fill in Facilities 1 through 3.

	System Size kWac	System Size kWdc	Date of Interconnection Application	Facility Area	Impacted MSG 1-4 acres within the Facility Area			
					MSG 1	MSG 2	MSG 3	MSG 4
Facility 1	3,000	4,000	3/24/23	14.76 acres		7.8 acre		
Facility 2								
Facility 3								
Facility 4								
Facility 5								

Anticipated date of commencement of proposed action⁴: Winter/Spring 2024

Provide information regarding the system size, NY-Sun incentives awarded, the current status of interconnection and any other relevant information for the project.

The proposed project is a 4 MW-DC, 3 MW-AC ground-mounted photovoltaic solar array that will be located at 55 Tobin Road Henrietta, NY. The project will be owned by Tobin Henrietta Solar LLC under a lease agreement with Mark and Linda Heintz, and constructed and operated by Sustainable Energy Development, D.B.A. GreenSpark Solar. The array will interconnect to the Rochester Gas & Electric (RG&E) utility grid, and will include approximately 6,840 modules on a ground mounted, pier driven racking system. The proposed installation would occupy approximately 14.1 acres of the 28.53-acre parcel, with an additional area of approximately 0.66 acres of access road outside the fence line. Ground disturbance would be limited to the pier driven posts of the racking system, the electrical trenches, parking staging area, and the fence line. Describe any siting considerations that impacted the placement of the array, such as the presence of delineated wetlands, grading restrictions, municipal setbacks or other zoning requirements, shading setbacks, landowner restrictions, etc.

Municipal minimum setbacks shall be 100 feet from a public road, 50 feet from side and rear yard lot lines, and 150 feet from any residences. There is a delineated wetland located in the southwest corner which will be entirely avoided at the NYSDEC 100ft buffer line.

³ The Facility Area is defined as all land area occupied during the commercial operation of the generation facility, the associated interconnection equipment and, if applicable, energy storage equipment as verified by NYSERDA through the Operational Certification process. Generally, this will include all areas within the facility's perimeter security fence(s) and the applicable facility related improvements outside of fenced areas. The Facility Area shall include the area "inside the fence" of the project including all fencing enclosing the mechanical equipment such as the solar arrays, inverters, location of any combiner boxes, fuses, switches, meters, distribution boards, monitoring systems such as Balance of Systems components, interconnection equipment, and stormwater controls. The Facility Area shall additionally include improvements of the project "outside of the fence" including access roads, parking areas, stormwater controls and other permanent facilities, or structures installed at the Facility Area, except vegetative landscape screenings or appropriately buried utilities such as electrical conductors or conduit(s).

⁴ The commencement date is the first day the Project Developer/Developer starts any construction-related activity and may include, but is not limited to, creating access road(s), digging underground trenches, starting land clearing, staging supplies and/or equipment, or installing solar panels

Affected Landowners⁵:

1. Name(s): Mark and Linda Heintz
Address: 55 Tobin Road Henrietta, NY 14467
Parcel Number(s): 190.02-1-48.21
2. Name(s): Mark Krieger
Address: 111 Willarrd Rd Pittsford, NY14534
Parcel Number(s): 190.02-1-48.21
3. Name(s):
Address:
Parcel Number(s):

Operator of the Parcel (if different from the listed landowner):

III. Adverse Agricultural Effects:

Has the proposed action been approved by the affected local municipality?

Yes No

If no, please cite approvals which are still pending:

Special Use Permit, Site Plan Approval

Is the parcel subdivided, or will the parcel be subdivided?

Yes No

If yes, will the parcels be merged after the system has been decommissioned?

Yes No N/A

Has the Project Company avoided and/or minimized impacts to prime soils in the consideration of the proposed layout?

Yes No

Please explain:

While much of the land on the parcel is an MSG 2, we were able to avoid over half of the acreage for those soils.

Will unaffected portions of any impacted farms remain in agricultural production?

Yes No

If yes, will the landowner have access to the remainder of the agricultural field?

Yes No N/A

⁵ Provide the names, addresses, and tax parcel identification numbers for the landowners that are directly affected by the construction of the proposed project within the agricultural district. This includes the owners of the land where the project will be constructed and any other landowner that may be affected by the construction of an access road or transmission lines across their property. Do not include landowners within the project vicinity that are not within the agricultural district.

IV. Alternatives to the Proposed Action:

Describe alternatives to the proposed action, and reasons why the project site was selected as the preferred site for the proposed action. An alternative site is viewed as any other parcel(s) that were assessed or reviewed to be a potential candidate to host the project, before arriving at the selected location. Provide only the tax parcel ID and a brief explanation as to why the parcel was not ultimately selected.

Tax Parcel ID	Reason Not Selected
190.02-1-48.1	Unwilling landowner

V. Mitigation Measures Proposed:

NY-Sun supported Projects in Agricultural Districts are required to adopt the NYSAGM [Guidelines for Solar Energy Projects – Construction Mitigation for Agricultural Lands \(10/18/19\)](#) (Guidelines) in their entirety. Confirm both that the Guidelines will be adhered to in their entirety and include a signed copy with this filing.

- I confirm that the Project will conform to the NYSAGM Guidelines, in their entirety.
- Signed copy of Guidelines included in application.
- A copy of the project's decommissioning plan is included.

Does the decommissioning plan ensure the project site will be restored to its previous condition upon decommissioning?

- Yes No

If no, please explain:

Additional mitigation measures proposed, if any:

When this form is completed, the Project Company must provide their signature prior to submitting the form to NYSERDA.



Project Company Authorized Signature

10/11/23

Date

NEW YORK STATE DEPARTMENT OF AGRICULTURE AND MARKETS

Guidelines for Solar Energy Projects - Construction Mitigation for Agricultural Lands (Revision 10/18/2019)

The following are guidelines for mitigating construction impacts on agricultural land during the following stages of a solar energy project: Construction, Post-Construction Restoration, Monitoring and Remediation, and Decommissioning. These guidelines apply to project areas subject to ground disturbance¹ within agricultural lands including:

- Lands where agriculture use will continue or resume following the completion of construction (typically those lands outside of the developed project's security fence);
- Lands where the proposed solar development will be returning to agricultural use upon decommissioning, (typically those lands inside of the developed project's security fence);
- Applicable Area under review pursuant to Public Service Law Article 10 Siting of Major Electric Facilities.

The Project Company will incorporate these Guidelines into the development plans and applications for permitting and approval for solar projects that impact agricultural lands. If the Environmental Monitor, hereafter referred to as EM, determines that there is any conflict between these Guidelines and the requirements for project construction that arise out of the project permitting process, the Project Company and its EM, will notify the New York State Department of Agriculture and Markets (NYSDAM), Division of Land and Water Resources, and seek a reasonable alternative.

Environmental Monitor (EM)

The Project Company (or its contractor) shall hire or designate an EM to oversee the construction, restoration and follow-up monitoring in agricultural areas. The EM shall be an individual with a confident understanding of normal agriculture practices² (such as cultivation, crop rotation, nutrient management, drainage (subsurface and/or surface), chemical application, agricultural equipment operation, fencing, soils, plant identification, etc.) and able to identify how the project may affect the site and the applicable agricultural practices. The EM should also have experience with or understanding of the use of a soil penetrometer for compaction testing and record keeping. The EM may serve dual inspection roles associated with other Project permits and/or construction duties, if the agricultural workload allows. The EM should be available to provide site-specific agricultural information as necessary for project development through field review and direct contact with both the affected farm operators and NYSDAM. The EM should maintain regular contact with appropriate onsite project construction supervision and inspectors throughout the construction phase. The EM should maintain regular contact with the affected farm operator(s) concerning agricultural land impacted, management matters pertinent to the agricultural operations and the site-specific implementation of agricultural resource mitigation measures. The EM will serve as the agricultural point of contact.

¹Ground Disturbance is defined as an activity that contributes to measurable soil compaction, alters the soil profile or removes vegetative cover. Construction activities that utilize low ground pressure vehicles that do not result in a visible rut that alters soil compaction, is not considered a Ground Disturbance. Soil compaction should be tested using an appropriate soil penetrometer or other soil compaction measuring device. The soil compaction test results within the affected area will be compared with those of the adjacent unaffected portion of the agricultural area.

² An EM is not expected to have knowledge regarding all of the listed agricultural practices, but rather a general understanding such that the EM is able to perform the EM function.

1. For projects involving less than 50 acres of agricultural land within the limits of disturbance (LOD),³ the EM shall be available for consultation and/or on-site whenever construction or restoration work that causes Ground Disturbance is occurring on agricultural land.
2. For projects involving 50 acres or more of agricultural land within the (LOD) (including projects involving the same parent company whether phased or contiguous projects), the EM shall be on site whenever construction or restoration work requiring or involving Ground Disturbance is occurring on agricultural land and shall notify NYSDAM of Project activity. The purpose of the agency coordination would be to assure that the mitigation measures of these guidelines are being met to the fullest extent practicable. The Project Company and the NYSDAM will agree to schedule inspections in a manner that avoids delay in the work. NYSDAM requires the opportunity to review and will approve the proposed EM based on qualifications or capacities.

Construction Requirements

- Before any topsoil is stripped, representative soil samples should be obtained from the areas to be disturbed. The soil sampling should be consistent with Cornell University's soil testing guidelines, and samples should be submitted to a laboratory for testing PH, percent organic material, cation exchange capacity, Phosphorus/Phosphate (P), and Potassium/Potash (K). The results are to establish a benchmark that the soil's PH, Nitrogen (N), Phosphorus/Phosphate (P), and Potassium/Potash (K) are to be measured against upon restoration. If soil sampling is not performed, fertilizer and lime application recommendations for disturbed areas can be found at https://www.agriculture.ny.gov/ap/agservices/Fertilizer_Lime_and_Seeding_Recommendations.pdf.
- Stripped topsoil should be stockpiled from work areas (e.g. parking areas, electric conductor trenches, along access roads, equipment pads) and kept separate from other excavated material (rock and/or sub-soil) until the completion of the facility for final restoration. For proper topsoil segregation, at least 25 feet of additional temporary workspace (ATWS) may be needed along "open-cut" underground utility trenches. All topsoil will be stockpiled as close as is reasonably practical to the area where stripped/removed and shall be used for restoration on that particular area. Any topsoil removed from permanently converted agricultural areas (e.g. permanent roads, etc.) should be temporarily stockpiled and eventually spread evenly in adjacent agricultural areas within the project Limits of Disturbance (LOD); however not to significantly alter the hydrology of the area. Clearly designate topsoil stockpile areas and topsoil disposal areas in the field and on construction drawings; changes or additions to the designated stockpile areas may be needed based on field conditions in consultation with the EM. Sufficient LOD (as designated on the site plan or by the EM) area should be allotted to allow adequate access to the stockpile for topsoil replacement during restoration.
 - Topsoil stockpiles on agricultural areas left in place prior to October 31st should be seeded with Aroostook Winter Rye or equivalent at an application rate of three bushels (168 lbs.) per acre and mulched with straw mulch at rate of two to three bales per 1000 Sq. Ft.
 - Topsoil stockpiles left in place between October 31st and May 31st should be mulched with straw at a rate of two to three bales per 1000 Sq. Ft. to prevent soil loss.
- The surface of access roads located outside of the generation facility's security fence and constructed through agricultural fields shall be level with the adjacent field surface. If a level road design is not

³ The Limits of Disturbance (LOD) includes all project related ground disturbances and all areas within the project's security fencing.

feasible, all access roads should be constructed to allow a farm crossing (for specific equipment and livestock) and to restore/ maintain original surface drainage patterns.

- Install culverts and/or waterbars to maintain or improve site specific natural drainage patterns.
- Do not allow vehicles or equipment outside the planned LOD without the EM seeking prior approval from the landowner (and/or agricultural producer), and associated permit amendments as necessary. Limit all vehicle and equipment traffic, parking, and material storage to the access road and/or designated work areas, such as laydown areas, with exception the use of low ground pressure equipment.⁴ Where repeated temporary access is necessary across portions of agricultural areas outside of the security fence, preparation for such access should consist of either stripping / stockpiling all topsoil linearly along the access road, or the use of timber matting.
- Proposed permanent access should be established as soon as possible by removing topsoil according to the depth of topsoil as directed by the EM. Any extra topsoil removed from permanently converted areas (e.g. permanent roads, equipment pads, etc.) should be temporarily stockpiled and eventually spread evenly in adjacent agricultural areas within the project Limits of Disturbance (LOD); however not to significantly alter the hydrology of the area.
- When open-cut trenching is proposed, topsoil stripping is required from the work area adjacent to the trench (including segregated stockpile areas and equipment access). Trencher or road saw like equipment are not allowed for trench excavation in agricultural areas, as the equipment does not segregate topsoil from subsoil. Horizontal Directional Drilling (HDD) or equivalent installation that does not disrupt the soil profile, may limit agricultural ground disturbances. Any HDD drilling fluid inadvertently discharged must be removed from agricultural areas. Narrow open trenches less than 25 feet long involving a single directly buried conductor or conduit (as required) to connect short rows within the array, are exempt from topsoil segregation.
- Electric collection, communication and transmission lines installed above ground can create long term interference with mechanized farming on agricultural land. Thus, interconnect conductors outside of the security fence must be buried in agricultural fields wherever practicable. Where overhead utility lines are required, (including Point(s) of Interconnection) installation must be located outside field boundaries or along permanent access road(s) wherever possible. When overhead utilities must cross farmland, minimize agricultural impacts by using taller structures that provide longer spanning distances and locate poles on field edges to the greatest extent practicable.
- All buried utilities located **within** the generation facility's security fence must have a minimum depth of 18-inches of cover if buried in a conduit and a minimum depth of twenty-four inches of cover if directly buried (e.g. not routed in conduit).⁵
- The following requirements apply to all buried utilities located **outside** of the generation facility security fence:
 - In cropland, hayland, and improved pasture buried electric conductors must have a minimum depth of 48-inches of cover. In areas where the depth of soil over bedrock is less than 48-inches, the

⁴ low ground pressure vehicles that do not result in a visible rut that alters soil compaction.

⁵ Burial of electrical conductors located within the energy generation facility may be superseded by more stringent updated electrical code or applicable governing code.

electric conductors must be buried below the surface of the bedrock if friable/rippable, or as near as possible to the surface of the bedrock.

- In unimproved grazing areas or on land permanently devoted to pasture the minimum depth of cover must be 36-inches.
- Where electrical conductors are buried directly below the generation facility's access road or immediately adjacent (at road edge) to the access road, the minimum depth of cover must be 24-inches. Conductors must be close enough to the road edge as to be not subject to agricultural cultivation / sub-soiling.
- When buried utilities alter the natural stratification of soil horizons and natural soil drainage patterns, rectify the effects with measures such as subsurface intercept drain lines. Consult the local Soil and Water Conservation District concerning the type of intercept drain lines to install to prevent surface seeps and the seasonally prolonged saturation of the conductor installation zone and adjacent areas. Install and/or repair all drain lines according to Natural Resources Conservation Service conservation practice standards and specifications. Drain tile must meet or exceed the AASHTO M-252 specifications. Repair of subsurface drains tiles should be consistent with the NYSDAM's details for "*Repair of Severed Tile Line*" found in the pipeline drawing A-5 (<http://www.agriculture.ny.gov/ap/agservices/Pipeline-Drawings.pdf>).
- In pasture areas, it may be necessary to construct temporary fencing (in addition to the Project's permanent security fences) around work areas to prevent livestock access to active construction areas and areas undergoing restoration. For areas returning to pasture, temporary fencing will be required to delay the pasturing of livestock within the restored portion of the LOD until pasture areas are appropriately revegetated. Temporary fencing including the project's required temporary access for the associated fence installations should be included within the LOD as well as noted on the construction drawings. The Project Company will be responsible for maintaining the temporary fencing until the EM determines that the vegetation in the restored area is established and able to accommodate grazing. At such time, the Project Company should be responsible for removal of the temporary fences.

Post-Construction restoration requirements applicable to continued use agricultural areas that suffered ground disturbance due to construction activities (typically lands outside of the developed project's security fence).

- All construction debris in active agriculture areas including pieces of wire, bolts, and other unused metal objects will need to be removed and properly disposed of as soon as practical to prevent mixing with any topsoil.
- Excess concrete will not be buried or left on the surface in active agricultural areas. Concrete trucks will be washed outside of active agricultural areas. Remove all excess subsoil and rock unearthed from construction related activities occurring in areas intended to return to agricultural use. On-site disposal of such material is not permissible in active agricultural lands. Designated spoil disposal locations should be specified in the associated construction plans. If landowner agreements, LOD boundary, or Project's land use approvals do not allow for on-site disposal, material must be removed from the site.⁶

⁶ Any permits necessary for disposal under local, State and/or federal laws and regulations must be obtained by the facility operator, with the cooperation of the landowner when required.

- Excess stripped topsoil shall not be utilized for fill within the project area. Any extra topsoil removed from permanently impacted areas (e.g. roads, equipment pads, etc.) should be evenly spread in adjacent agricultural project areas, however not to significantly alter the hydrology of the area.
- Regrade all access roads outside of the security fencing (as determined necessary by the EM), to allow for farm equipment crossing and restore original surface drainage patterns, or other drainage pattern incorporated into the design.
- Repair all surface or subsurface drainage structures damaged during construction as close to preconstruction conditions as possible, unless said structures are to be removed as part of the project design. Correct any surface or subsurface drainage problems resulting from construction of the solar energy project with the appropriate mitigation as determined by the Environmental Monitor, Soil and Water Conservation District and the Landowner.
- On agricultural land needing restoration because of ground disturbance, postpone any restoration practices until favorable (workable, relatively dry) topsoil/subsoil conditions exist. Restoration must not be conducted while soils are in a wet or plastic state of consistency. Stockpiled topsoil must not be regraded, and subsoil must not be decompacted until plasticity, as determined by the Atterberg field test, is adequately reduced. No permanent project restoration activities shall occur in agricultural areas between the months of October through May unless favorable soil moisture conditions exist.
- In all continued use agricultural land where the topsoil was stripped, subsoil decompaction shall be conducted prior to topsoil replacement. Following construction, all such areas will be decompacted to a depth of 18 inches with a tractor mounted deep ripper or heavy-duty chisel plow. Soil compaction results shall be no more than 250 pounds per square inch (PSI) throughout the decompacted 18 inches as measured with a soil penetrometer. Following decompaction, all rocks 4 inches and larger in size unearthed from decompaction will be removed from the surface of the subsoil prior to replacement of the topsoil. The topsoil will be replaced to original depth and the original contours will be reestablished where possible. All rocks 4 inches and larger from topsoil shall be removed from the surface of the topsoil. Subsoil decompaction and topsoil replacement must be avoided after October 1, unless approved on a site-specific basis by the landowner in consultation with NYSDAM. All parties involved must be cognizant that areas restored after October 1st may not obtain sufficient growth for stabilization⁷ to prevent erosion over the winter months. If areas are to be restored after October 1st, necessary provisions must be made to prevent potential springtime erosion, as well as restore any eroded areas in the springtime, to establish proper growth. Excess stripped topsoil shall be evenly spread in the adjacent project areas, or adjacent agricultural areas (within the LOD), however, not to significantly alter the hydrology of the area.
- In all continued use agricultural areas where the topsoil was not stripped, including timber matted areas, the EM shall determine appropriate activities to return the area to agricultural use. These activities may include decompaction, rock removal, and revegetation. Soil compaction should be tested in the affected areas and the affected area's adjacent undisturbed areas using an appropriate soil penetrometer or other soil compaction measuring device as soon as soils achieve moisture equilibrium with adjacent unaffected areas. Compaction tests will be made at regular intervals of distance throughout the affected areas, including each soil type identified within the affected areas. Soil compaction results shall be measured with a soil penetrometer not exceeding more than 250 pounds per square inch (PSI), by

⁷ Sufficient growth for stabilization should be determined by comparison with unaffected crop production. Annual crops restored after normal planting window (as determined by the landowner or associated producer) should be stabilized with Aroostook Winter Rye at the rate of 150/100 lbs. per acre (broad cast/drill seeder).

comparing probing depths of both the affected and unaffected areas. Where representative soil density of the affected area's collective depth measurements present compaction restrictions exceeding an acceptable deviation of no more than 20% from the adjacent undisturbed area's mean soil density, additional decompaction may be required to a depth of 18-inches with a tractor mounted deep ripper or heavy-duty chisel plow. Following decompaction, remove all rocks unearthed from decompaction activities 4 inches and larger in size from the surface. Revegetation shall be performed in accordance with the instructions below.

- Seed all agricultural areas from which the vegetation was removed or destroyed with the seed mix specified by the landowner/agriculture producer or as otherwise recommended in the Department's fertilizer, lime and seeding guideline: [https://www.agriculture.ny.gov/ap/agsservices/Fertilizer_Lime_and_Seeding_Recommendations.pdf]. Soil amendments should be applied as necessary so that restored agricultural areas' soil properties, at minimum, reasonably reflect the pre-construction soil test results or as otherwise agreed to by the involved parties to ensure continued agricultural use. All parties must be cognizant that areas restored after October 1st may not obtain sufficient growth to prevent erosion over the winter months. If areas are to be restored after October 1st, necessary provisions must be made to restore and/or re-seed any eroded or poorly germinated areas in the springtime, to establish proper growth.

Monitoring and Remediation

Project Companies shall provide a monitoring and remediation period of one complete growing season following the date upon which the desired crop is planted. All projects subject to NYS Public Service Law Article 10 will provide a monitoring period of two complete growing seasons following the date upon which the project achieves the establishment of the desired crop.

On site monitoring shall be conducted seasonally at least three times during the growing season (Spring, Summer, Fall). Monitoring is required to identify any remaining impacts directly associated with the construction of the project on agricultural lands proposed to remain or resume agriculture production, including the effects of climatic cycles such as frost action, precipitation and growing seasons to occur, from which various monitoring observations can be made. NYSDAM expects the Project Company (or its contractor) to retain the EM for follow-up monitoring and remediation (as needed) in agricultural areas. Monitoring is limited to the restored agricultural area. Non-project related impacts affecting the restored project area will be discussed with NYSDAM staff and considered for omission from future monitoring and remediation. The EM is expected to record the following observations from onsite inspections:⁸

- **Topsoil Thickness and Trench Settling** – The EM observations may require small hand dug holes to observe the percentage of settled topsoil in areas where the topsoil was stripped, or trenching was performed without stripping topsoil. Observations concerning depth of topsoil deficiencies shall require further remediation by re-appropriating additional topsoil. Acceptable materials for remediation are: known areas of native excess topsoil (according to records of project specific excess topsoil disposal spread within the original LOD) or imported topsoil free of invasive species that is consistent with the quality of topsoil on the affected site.

⁸ The activities that follow are not necessary for restored agricultural lands on which the farmer or landowner has commenced activities, including agricultural activities or other use that tend to reverse restoration or create conditions that would otherwise trigger restoration. Should NYSDAM contend upon inspection that conditions indicate that post-construction restoration activities were improperly performed or insufficient, NYSDAM may inform the project company and NYSERDA for further investigation and remediation.

- **Excessive Rock (>4-inches)** - Determined by a visual inspection of disturbed areas as compared to unaffected portions of the same field located outside the construction area. Observations concerning excess stone material in comparison to off-site conditions shall require further remediation including removal and disposal of all excess rocks and large stones.
- **Soil Compaction** - Project affected agricultural soils should be tested using an appropriate soil penetrometer or other soil compaction measuring device. Compaction tests will be made at regular intervals of distance throughout the access or work areas, including each soil type identified on the affected agricultural areas. Where representative soil density of the affected area exceeds the representative soil density of the unaffected areas, additional decompaction may be required. Consultation with NYSDAM staff and the agricultural producer(s) should be conducted prior to scheduling additional decompaction. If warranted, decompaction to a depth of 18-inches with a tractor mounted deep ripper or heavy-duty chisel plow. Restoration of displaced topsoil to original depth and re-establish original contours where possible. Decompaction deep shattering will be applied during periods of relatively low soil moisture to ensure the desired mitigation and to prevent additional soil compaction. Oversized stone/rock (Four-inches) material that is uplifted/unearthed to the surface as a result of the deep shattering will be removed.
- **Drainage** – The EM shall visually inspect the restored agricultural areas in search of pervasive stunted crop growth due to seasonal saturation, not previously experienced at the site and not resulting from the agricultural producer’s irrigation management or due to excessive rainfall. Identified areas of stunted crop growth shall be compared to the nearest undisturbed adjacent areas under a substantially equivalent terrain and crop management plan. Drainage observations should be evaluated to determine if the project affected surface or sub-surface drainage during construction or restoration. Project caused drainage issues affecting or likely to reduce crop productivity of the adjacent areas will have to be remediated via a positive surface drainage, sub-surface drainage repair or an equivalent.
- **Agriculture Fencing and Gates** – The EM shall inspect Project associated fencing and gates (installed, altered or repaired) within the Project’s LOD associated with agricultural activities for function and longevity. The Project Company is responsible during the Monitoring and Remediation Phase for maintaining the integrity of Project associated fencing and gates.

The Project Company (or its contractor) shall consolidate each applicable growing season’s observations into an annual report during the monitoring period and shall be provided upon request to NYSDAM. Annual reports should include date stamped photographs illustrating crop growth in comparison with unaffected portions the agricultural areas.

The EM shall record observations of the establishment of the desired crop and subsequent crop productivity within restored agricultural areas and shall be evaluated by comparing its productivity to that of the nearest adjacent undisturbed agricultural land of similar crop type within the same field. If a decline in crop productivity is apparent the Project Company as well as other appropriate parties must determine whether the decline is due to project activities. If project activities are determined to be the primary detrimental factor, the project EM will notify NYSDAM concerning unsuccessful restoration and to potentially schedule a NYSDAM staff field visit. If project restoration is determined to be insufficient, the Project Company will develop a plan for appropriate rehabilitation measures to be implemented. NYSDAM staff will review and approve said plan prior to implementation. Additional monitoring may be required depending on additional restoration activities needed.

The Project Company is not responsible for site conditions and/or potential damages attributable to the agricultural producer's land use management or others' land use management.

Decommissioning

If the operation of the generation facility is permanently discontinued, remove all above ground structures (including panels, racking, signage, equipment pad, security fencing) and underground utilities if less than 48-inches deep. All concrete piers, footers, or other supports must be removed to a minimum depth of 48-inches below the soil surface. The following requirements apply to electric conductors located at the respective range of depth below the surface:

- 48-inches plus: All underground electric conduits and direct buried conductors may be abandoned in place. Applicable conduit risers must be removed, and abandoned conduit must be sealed or capped to avoid a potential to direct subsurface drainage onto neighboring land uses.
- Less than 48-inches: All underground direct buried electric conductors and conductors in conduit and associated conduit with less than 48-inches of cover must be removed, by means of causing the least amount of disturbance as possible.

Access roads in agricultural areas must be removed, unless otherwise specified by the landowner. If access is to be removed, topsoil will have to be returned from recorded project excess native topsoil disposal areas, if present, or imported topsoil free of invasive species that is consistent with the quality of topsoil on the affected site. Restore all areas intended for agricultural production, according to recommendations by the current landowner or leasing agricultural producer, and as required by any applicable permit, the Soil and Water Conservation District, and NYSDAM.

Monitoring and restoration requirements in accordance to the prior sections of these guidelines, will be required for the decommissioning restoration. NYSDAM requires notice before the Project Company undertakes decommissioning.

Tobin Henrietta Solar LLC (Project Company) hereby agrees to use best efforts to adopt and employ the provisions of the NYSDAM Guidelines for Agricultural Mitigation for Solar Energy Projects in all material aspects of the construction, post construction and decommissioning of this project. Where Project Company determines that it cannot perform an activity in a manner that meets the material terms of any provision of the Guidelines, the Project Company or its Environmental Monitor will notify NYSDAM and make good faith efforts to devise an alternative solution that will mitigate adverse agricultural impacts.



Oct 11, 2023

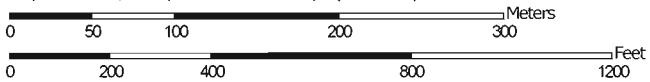
Signature

Date

Soil Map—Monroe County, New York
(Tobin Henrietta)




Map Scale: 1:4,590 if printed on A landscape (11" x 8.5") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

Water Features

Streams and Canals

Transportation



Rails



Interstate Highways



US Routes

Major Roads

Local Roads

Background



Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Monroe County, New York
Survey Area Data: Version 21, Sep 10, 2022

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 4, 2020—Jun 17, 2020


The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
ApA	Appleton loam, 0 to 3 percent slopes	3.4	12.1%
Ca	Canandaigua silt loam	7.8	27.5%
HIA	Hilton loam, 0 to 3 percent slopes	12.7	44.5%
Ms	Muck, shallow	0.5	1.7%
OnB	Ontario loam, 3 to 8 percent slopes	4.0	14.2%
Totals for Area of Interest		28.5	100.0%



Only Active Farms on Agricultural District Land Within 500' of the Project are Labeled Above

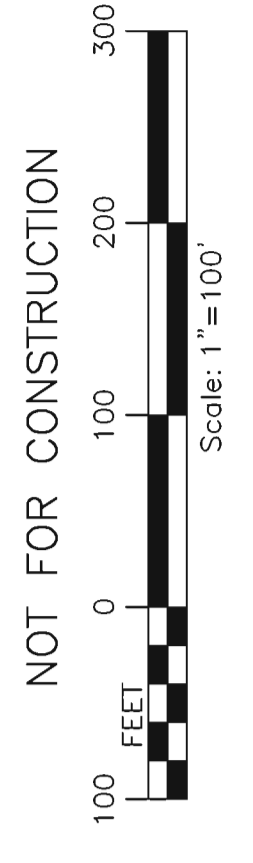
 = Project Parcel (Only affected Parcel)



EA PROJECT NO. 230529-03
PROJECT MANAGER S. MELLOTT
DRAWN BY J. TORRES
SCALE AS SHOWN
ISSUE DATE 10/5/2023

FISHER ASSOCIATES
P.E. S.A.M. P.E.C.
New York State Education Law Section 1405.3 requires that the design engineer or licensed professional engineer of record shall prepare the drawings and specifications for the work and shall be responsible for the accuracy of the information and a specific description of the information.

REV	DATE	DESCRIPTION
1		
2		
3		
4		
5		
6		
7		



- LEGEND**
- PROJECT BOUNDARY
 - PROPERTY SETBACK
 - ADJACENT PROPERTY LINE
 - INTERIOR LOT LINE
 - RIGHT-OF-WAY
 - EXISTING TREE LINE
 - EXISTING FENCE
 - EXISTING GRAVEL ROAD
 - EXISTING UTILITY POLE
 - PERVIOUS GRAVEL ACCESS ROAD
 - DELIMITED WETLANDS
 - WETLAND BUFFER
 - PROPOSED SOLAR PANEL ARRAY
 - LIMIT OF DISTURBANCE

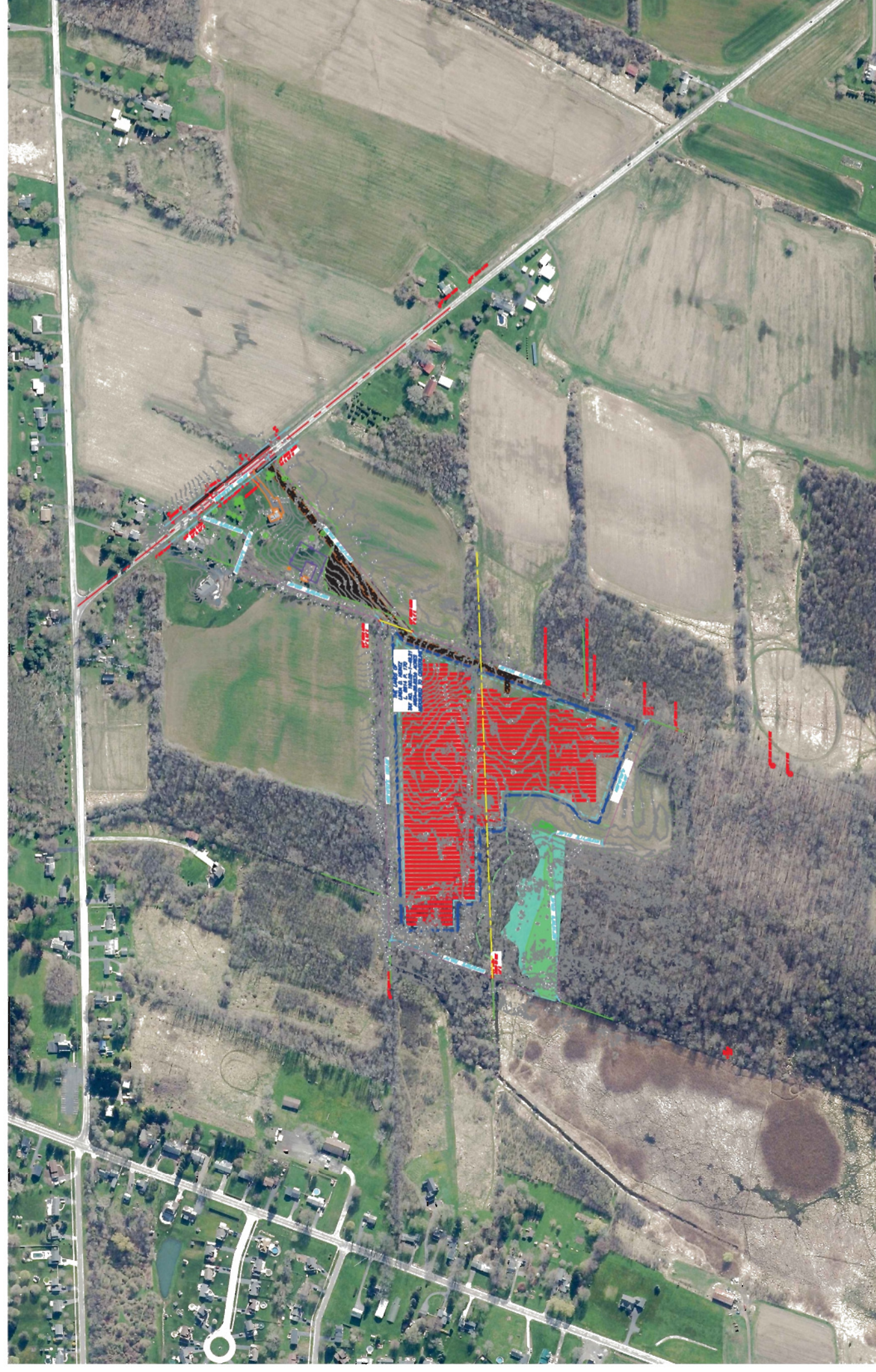


TOBIN ROAD SOLAR

4008.96 KWDC / 3000.00 KWAC PV PLANT

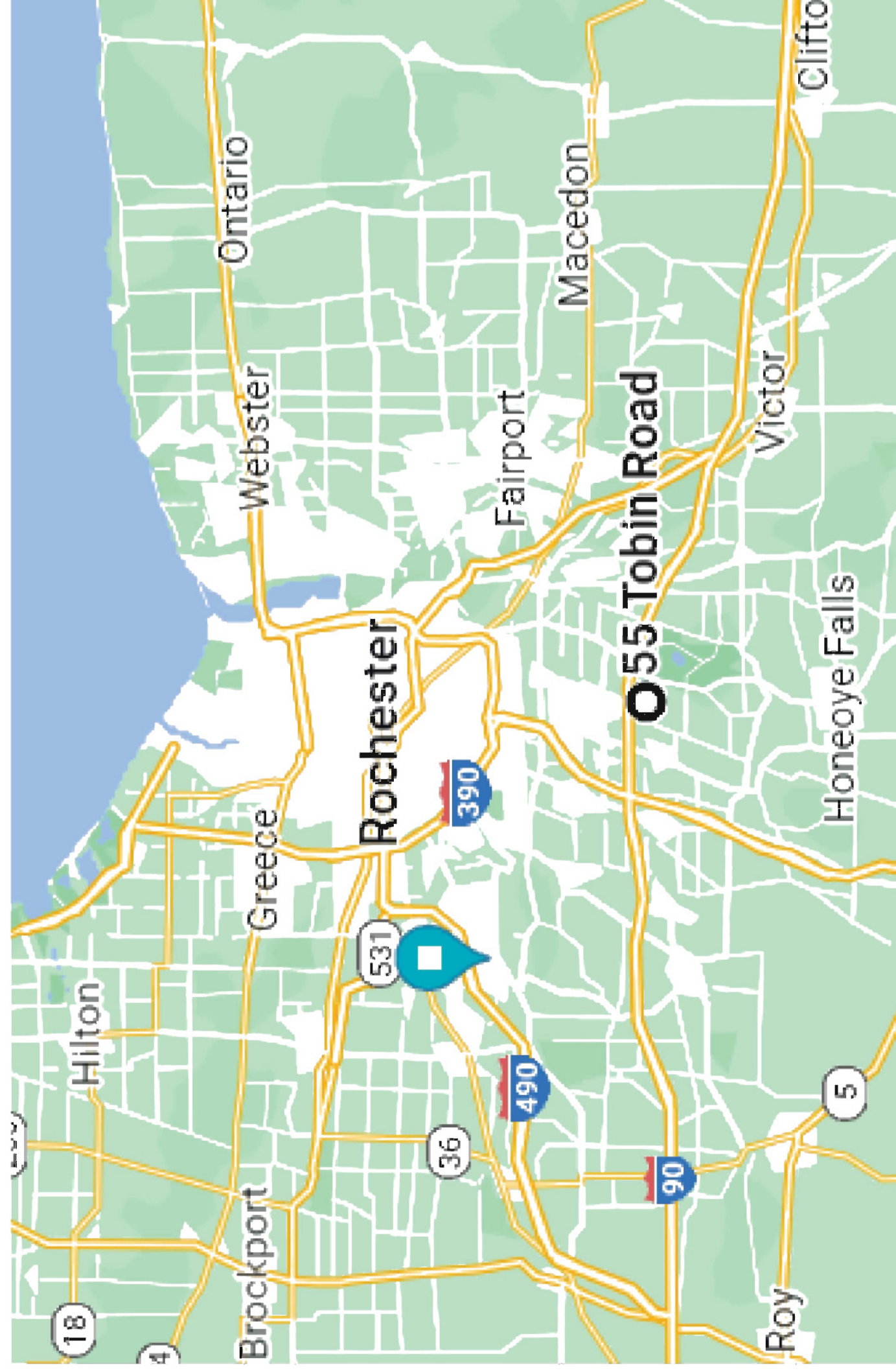
55 TOBIN ROAD, HENRIETTA, NY 14467

SITE MAP



SCALE: 1" = 500'

VICINITY MAP



SCALE: NTS

PROJECT OWNER

HEINTZ
55 TOBIN ROAD, HENRIETTA, NY
14467

EPC

SUSTAINABLE ENERGY DEVELOPMENTS
DBA GREENSPARK SOLAR
318 TIMOTHY LN, ONTARIO, NY 14519

SYSTEM SUMMARY:

TOTAL DC SYSTEM SIZE 4008.96 KWDC
 TOTAL AC SYSTEM SIZE 3000.00 KWAC
 MOUNTING SINGLE AXIS TRACKER
 SYSTEM TILT +/- 52°
 SYSTEM AZIMUTH 90° / 270°
 PV MODULE HANWHA Q-CELL, Q.PEAK DUO
 XL-G11.3/BFG
 580 W
 6912
 INVERTER SUNGROW
 INVERTER POWER 125 KW
 INVERTER QUANTITY 24

DESIGN CRITERIA

CODE REFERENCE NEC 2017
 BUILDING AUTHORITY HENRIETTA
 ELECTRICAL UTILITY COMPANY RG&E
 WIND LOAD (ASCE 7-16) 105 MPH
 GROUND SNOW LOAD (ASCE 7-16) 40 PSF
 EXPOSURE CATEGORY B
 HIGH TEMP (ASHRAE 2% HIGH) 31°C
 LOW TEMP (ASHRAE EXTREME LOW) -20°C

DRAWING INDEX

GENERAL
 G000 TITLE SHEET
 G100 OVERALL SITE-PLAN
 ELECTRICAL
 E000 ELECTRICAL NOTES
 E100 THREE LINE DIAGRAM
 E101 THREE LINE DIAGRAM

NOT FOR CONSTRUCTION



PROJECT TOBIN ROAD SOLAR
 DRAWING NO. G000

ADDRESS 55 TOBIN ROAD, HENRIETTA, NY 14467

SHEET TITLE TITLE SHEET

REV	SCALE	ISSUE DATE	DESCRIPTION	DATE	BY
1	NONE	09/18/23	30% DEVELOPMENT DESIGN REV 1	09/18/23	CRP
2	NONE	09/18/23	30% DEVELOPMENT DESIGN	08/23/23	CRP
3	NONE	09/18/23	POLE LINE UP CHANGE & 3-LINE REVISION	06/29/23	CRP
4	NONE	09/18/23	POLE LINE UP CHANGE	06/13/23	CRP



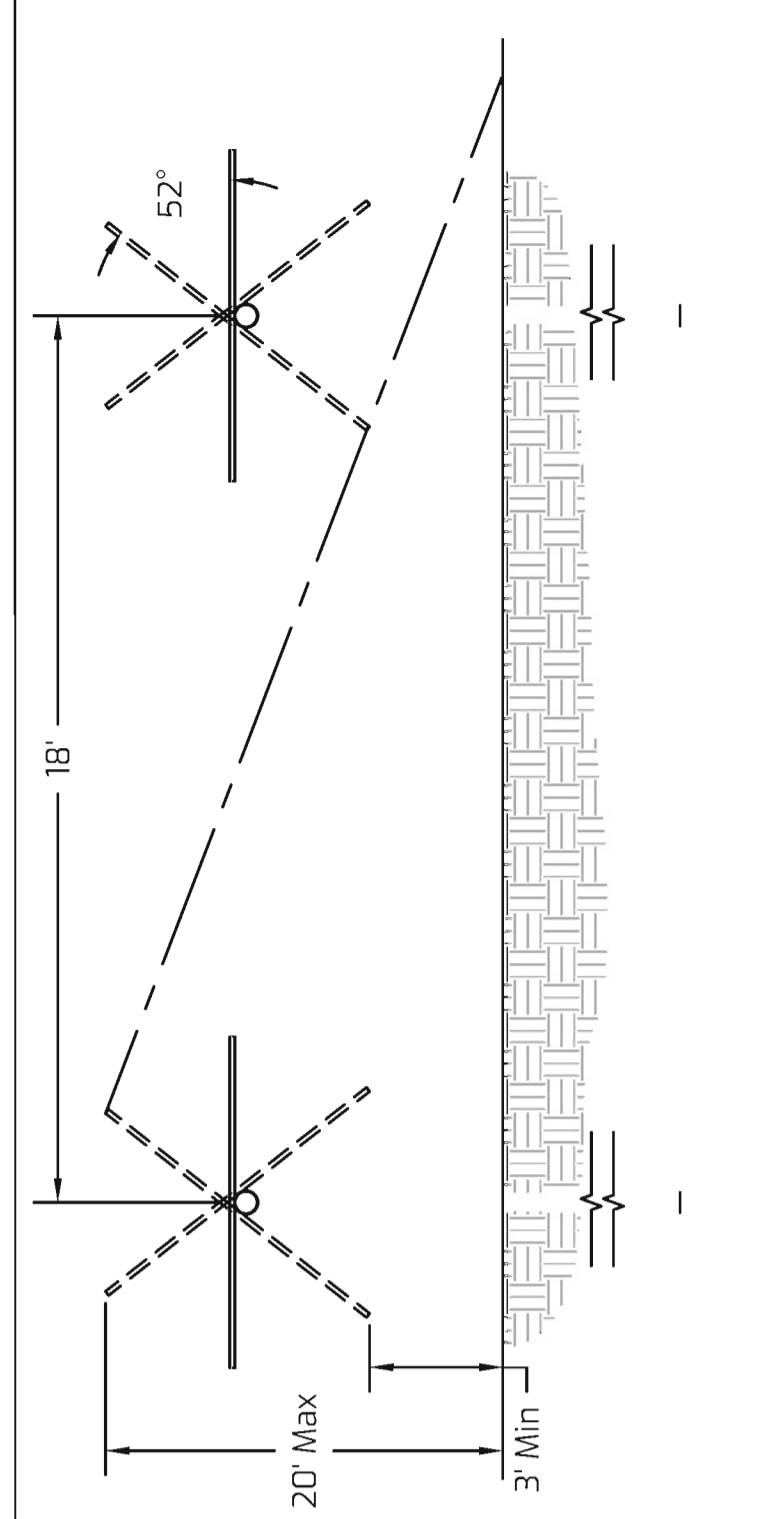
NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION
1	06/13/23	POLE LINE UP CHANGE
2	06/29/23	POLE LINE UP CHANGE & 3-LINE REVISION
3	08/23/23	30% DEVELOPMENT DESIGN
4	09/18/23	30% DEVELOPMENT DESIGN REV 1
5		
6		
7		

SCALE: 1" = 100'

ISSUE DATE: 09/18/23

DRAWN BY: CRP



- Proposed POI @ Existing RG&E Pole - Circuit 0106H05166 (12.47KV)
- Utility Pole 1: RG&E Owned Reclouser Pole
- Utility Pole 2: RG&E Owned Primary Meter Pole
- Customer Pole C-1: Generator Disconnect (POI)
- Customer Pole C-2: Customer owned Reclouser Pole
- Customer Pole C-3: Riser Pole w/ Fused Disconnect

50' Pole Spacing (Typ.)

20' Wide Access Road Per Utility

Staging Area
Approx. 1/2 Acre

LINDA D. HEINTZ
L. 8814 P. 170
TAX NO. 190.02 - 1-48.21
AREA=28.823± ACRES
MEASURED TO CENTERLINE

Proposed Equipment Pad:
Transformer location, Inverter
Rack w/ (24) inverters & (2) AC
Switchboards

16' Min Setback from Fence to Array

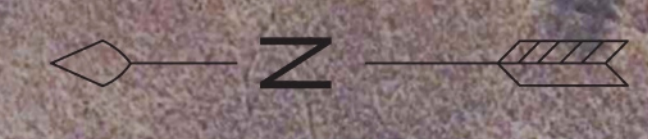
50' Setback from property line

Fence Line

Property Line

100' Setback from NYSDEC Wetland

NYSDEC Wetland



A. SAFETY NOTES

- A.1 DC VOLTAGE FROM THE PV MODULES IS ALWAYS PRESENT AT THE DC TERMINALS DURING DAYLIGHT HOURS.
- A.2 SUBCONTRACTORS SHALL PERFORM ALL WORK IN A SAFE AND RESPONSIBLE MANNER.
- A.3 LOCK-OUT TAG-OUT PROCEDURES SHALL BE OBSERVED DURING CONSTRUCTION, TESTING AND MAINTENANCE.
- A.4 CONTRACTORS SHALL ADHERE TO ALL RELEVANT FEDERAL, STATE AND LOCAL SAFETY REGULATIONS.
- A.5 ALL CONTRACTORS SHALL TRAIN ON-SITE EMPLOYEES ON THE SITE SAFETY AND ESTABLISHED REPORTING OF NEAR-MISSES AND ACCIDENTS.
- A.6 ALL CONTRACTORS SHALL PROVIDE AND UTILIZE THE CORRECT PERSONAL PROTECTION EQUIPMENT FOR THEIR PERSONNEL.

B. GENERAL NOTES

- B.1 THE GENERAL NOTES APPLY TO ALL DRAWINGS UNDER THE CONTRACT. REFER TO INDIVIDUAL DRAWINGS FOR ADDITIONAL NOTES
- B.2 ALL WORK SHALL BE INSTALLED IN A NEAT AND PROFESSIONAL MANNER.
- B.3 ALL EQUIPMENT USED IS TO BE APPROVED BY A NATIONALLY RECOGNIZED TESTING LABORATORY (NRTL) AND LABELLED FOR ITS INTENDED PURPOSE.
- B.4 ALL OUTDOOR ENCLOSURES ARE TO BE NEMA 3R RATED OR BETTER.
- B.5 TORQUE ALL MECHANICAL CONNECTIONS TO EQUIPMENT MANUFACTURER'S SPECIFICATIONS.
- B.6 METAL SHAVINGS RESULTING FROM SITE WORK MUST BE CLEANED FROM ENCLOSURES.
- B.7 ROOF PENETRATIONS SHALL BE COMPLETED AND SEALED PER MANUFACTURER'S SPECIFICATION AND ANY APPLICABLE CODE.
- B.8 IF OBSTRUCTIONS OR EQUIPMENT IS NOT WHERE DRAWINGS INDICATE, CONTACT THE DESIGNER BEFORE MAKING ADJUSTMENTS.
- B.9 ELECTRICAL INSTALLATION METHODS SHALL BE APPROVED BY THE ENGINEER AND/OR OWNER'S REPRESENTATIVE, USING A 'GOLDEN ROW' PROCESS OF VERIFICATION ON-SITE.

C. GROUNDING

- C.1 ALL METAL NON-CURRENT CARRYING PARTS MUST BE ELECTRICALLY BONDED TO THE GROUNDING SYSTEM PER NEC.
- C.2 SELF TAPPING SCREWS THAT ARE THREAD-CUTTING, SUCH AS SHEET METAL SCREWS, CANNOT BE USED FOR BONDING EQUIPMENT TO GROUND, PER NEC 250.8.
- C.3 GROUND LUGS MUST BE RATED FOR THE GIVEN CONDITIONS, BE IT OUTDOORS OR UNDERGROUND.
- C.4 ALL GROUNDING ELECTRODE CONDUCTORS SHALL BE INSTALLED IN A CONTINUOUS LENGTH EXCEPT WHERE SPLICED BY AN IRREVERSIBLE MECHANICAL CONNECTOR OR EXOTHERMIC WELD.
- C.5 GROUNDING JUMPERS MUST BE INSTALLED BETWEEN EACH ARRAY ROW AND MODULE-TO-MODULE UNLESS OTHERWISE NOTED IN MANUFACTURER SPECIFICATIONS.

D. WIRING AND WIRING METHODS:

- D.1 ALL WIRING METHODS AND INSTALLATION PRACTICES MUST CONFORM TO THE RELEVANT NEC, LOCAL AND STATE CODES.
- D.2 MODULE LEAD CONNECTORS MUST BE INSTALLED SUCH THAT THEY ARE PROTECTED FROM EXPOSURE TO DIRECT SUNLIGHT OR RAIN. THEY MUST NOT BE INSTALLED AT MODULE GAPS OR IN DIRECT CONTACT WITH THE MODULE BACKSHEET.
- D.3 PV CONNECTORS SHALL MATCH IN BRAND MAKE AND MODEL TO THE MODULE MANUFACTURER. CROSS MATING OF DIFFERENT BRANDS WILL NOT BE ALLOWED.
- D.4 MODULE WIRING SHALL BE LOCATED AND SECURED UNDER THE ARRAY USING SUITABLE WIRING CLIPS.
- D.5 PROTECT WIRE FROM SHARP EDGES WITH UV RATED SPIRAL WRAP, EDGE-GUARD OR SPLIT LOOM.
- D.6 ALL FREE AIR CABLES, SUCH AS PV MODULE LEADS, MUST BE SECURED WITHIN 12" OF CONNECTION POINTS AND EVERY 24" THEREAFTER.
- D.7 ZIP TIES ARE INTENDED FOR ORGANIZING AND BUNDLING WIRES, NOT AS PERMANENT SUPPORT. SUN-BUNDLERS OR APPROVED ALTERNATIVES CAN BE USED TO SUPPORT AND SECURE CONDUCTORS.
- D.8 PV WIRES SHOULD BE LABELED ON BOTH ENDS OF THE CONDUCTORS WITH SPECIFIC INVERTER AND STRING NUMBERS. USE SHRINK WRAPPING OR OTHER APPROVED METHODS.
- D.9 WIRE COLOR SPECS
BLACK (-) AND RED (+) FOR DC WIRES
BROWN, ORANGE, YELLOW FOR 3-PHASE 480V AND 600V
BLACK, RED, BLUE FOR 3-PHASE 208V
- D.10 WIRE SPLICING IS TO BE AVOIDED WHEREVER POSSIBLE. IF SPLICING IS NECESSARY, IT SHALL BE MADE IN AN ENCLOSURE, OR LOCATION APPROVED BY THE ENGINEER.
- D.11 TORQUE ALL ELECTRICAL TERMINATIONS PER MANUFACTURER'S SPECIFICATIONS, AND MARK THE POINT INDICATING THE FINAL TORQUED LOCATION.
- D.12 USE OF ALUMINUM CONDUCTORS IS ONLY ALLOWED AT TERMINALS ALLOWING AL CONNECTIONS, OR TO BE MADE WITH OTHER APPROVED METHODS.
- D.13 ALL AL CONNECTIONS MUST USE OXIDE-INHIBITING GREASE, OR DE-OX.
- D.14 ALL LUGS PROCURED MUST BE DUAL RATED FOR AL/CU.
- D.15 ALL CRIMPS ARE TO BE PERFORMED PER MANUFACTURER'S INSTRUCTIONS. ALL CRIMPING TOOLS ARE TO BE APPROVED BY THE ENGINEER, AND PHOTO DOCUMENTATION OF THE CORRECT CRIMPING METHOD PROVIDED.
- D.16 FOR USE WITH BIFACIAL MODULES: MODULE LEAD AND SOURCE CIRCUIT WIRING WILL BE MANAGED SO AS TO REDUCE SHADING TO THE BACK-SIDE OF MODULES.

E. CIVIL CONSTRUCTION

- E.1 ALL BACKFILLING IS TO BE DONE WITH MAXIMUM 6" LIFTS OR ACCORDING TO THE CIVIL ENGINEER'S SITE SPECIFIC DIRECTIVES.
- E.2 THE USE OF NATIVE MATERIALS FOR BACKFILL IS ALLOWED IF FOUND TO BE SUITABLE FOR COMPACTION AND FREE OF ROCKS, ORGANIC MATERIAL, AND DEBRIS.
- E.3 RETURN TRENCHES, RUTS AND OTHER SOIL DISTURBANCES TO A STABILIZED CONDITION AND SIMILAR TO ORIGINAL STATE.

F. CONDUITS AND RACEWAYS

- F.1 CONDUIT EXPANSION JOINTS ARE NEEDED FOR ALL ABOVE-GROUND CONDUITS AS PER NEC 300.7. CONDUIT EXPANSION JOINTS ARE NEEDED WHERE ROOF EXPANSION JOINTS ARE LOCATED.
- F.2 CONDUITS LEAVING THE GROUND AND INTO AN ENCLOSURE REQUIRE EXPANSION JOINTS FOR FROST HEAVE.
- F.3 ALL ABOVE GROUND PVC CONDUIT MUST BE SCHEDULE 80. ALL BELOW GROUND PVC CONDUIT PASSING UNDER ROADWAYS AND PARKING AREAS MUST BE SCHEDULE 80. OTHERWISE, SCHEDULE 40 IS ALLOWED.
- F.4 CONDUIT STUB-UPS MUST USE RMC OR A PVC SLEEVE TO PROTECT CONDUIT FROM DAMAGE.
- F.5 CONDUITS ARE TO BE APPROPRIATELY SEALED WHEN ENTERING A BUILDING AS PER NEC 300.7.
- F.6 FOR ALL CONDUITS ENTERING ENCLOSURE BOTTOMS, USE SEALING LOCK-NUTS LISTED AS WEATHERPROOF. FOR ALL CONDUITS ENTERING ENCLOSURE SIDES, USE MYERS-TYPE HUBS AND INSTALL AT THE LOWERS PRACTICAL LOCATION ON THE ENCLOSURE.
- F.7 ALL CONDUIT ENTERING INVERTERS AND DC COMBINERS SHALL BE SEALED WITH UL LISTED EXPANDING FOAM, POLY WATER SEAL, OR APPROVED ALTERNATIVE. PUTTY DUCT SEALANT IS NOT ACCEPTABLE.
- F.8 CONDUITS LONGER THAN 200' WITH NEGATIVE SLOPE TOWARD ELECTRICAL EQUIPMENT MUST HAVE A PULL-BOX OR VAULT ADJACENT TO THE ENTRY POINT OF THE EQUIPMENT TO ALLOW FOR POTENTIAL WATER EGRESS.
- F.9 HAND-HOLES, PULL BOXES, OR CONDUIT BODIES SHALL BE INSTALLED WHEN THE RACEWAY HAS MORE THAN 360 DEGREES OF BENDS, OR AS NECESSARY NOT TO EXCEED MANUFACTURER'S MAXIMUM CABLE PULLING TENSION, WHETHER OR NOT SHOWN ON DRAWINGS.
- F.10 ALL EMT MUST USE LISTED AND APPROVED RAIN TIGHT FITTINGS WHEN INSTALLED OUTDOORS OR IN WET LOCATIONS.
- F.11 WHEN TRANSITIONING FROM FREE AIR TO CONDUIT, UTILIZE CORD GRIPS TO SEAL OFF THE CONDUIT END.
- F.12 ALL CONDUIT SIZES PROVIDED ARE MINIMUM AS REQUIRED BY RELEVANT ELECTRIC CODES. CONTRACTORS MAY UPSIZE CONDUITS AS NEEDED FOR EASIER WIRE PULLING, IF APPROVED BY THE ENGINEER.

G. TESTING

- G.1 POLARITY TESTING MUST BE PERFORMED AT ALL PV SOURCE CIRCUITS AND PV OUTPUT CIRCUITS.
- G.2 OPEN CIRCUIT VOLTAGE TESTING MUST BE PERFORMED AT ALL PV SOURCE CIRCUITS TO ENSURE MODULES AND CONNECTIONS ARE EFFECTIVE.
- G.3 INSULATION RESISTANCE TESTING MUST BE PERFORMED ON ALL DC AND AC LOW VOLTAGE CIRCUITS.
- G.4 HI-POT TESTING MUST BE PERFORMED ON ALL MEDIUM VOLTAGE CIRCUITS.
- G.5 NON-CURRENT CARRYING METAL PARTS MUST BE CHECKED FOR CONNECTION TO GROUND.
- G.6 GROUND RESISTANCE TESTING TO BE PERFORMED PER NEC AND NOT TO EXCEED 25 OHMS.
- G.7 ALL TESTING MUST BE RECORDED AND RESULTS REVIEWED BY THE ENGINEER.
- G.8 ALL TESTING TO BE PERFORMED PER COMMISSIONING TEST EXHIBIT K PROVIDED BY THE OWNER.

REV	DESCRIPTION
1	NONE
2	POLE LINE UP CHANGE
3	POLE LINE UP CHANGE & 3-LINE REVISION
4	30% DEVELOPMENT DESIGN
5	30% DEVELOPMENT DESIGN REV 1

SCALE	DATE
1	09/18/23
2	09/18/23
3	09/18/23
4	09/18/23
5	
6	
7	

DRAWN BY	CRP

NOT FOR CONSTRUCTION



PROJECT	ADDRESS	SHEET TITLE
TOBIN ROAD SOLAR	55 TOBIN ROAD, HENRIETTA, NY 14467	ELECTRICAL NOTES

DRAWING NO.
E000

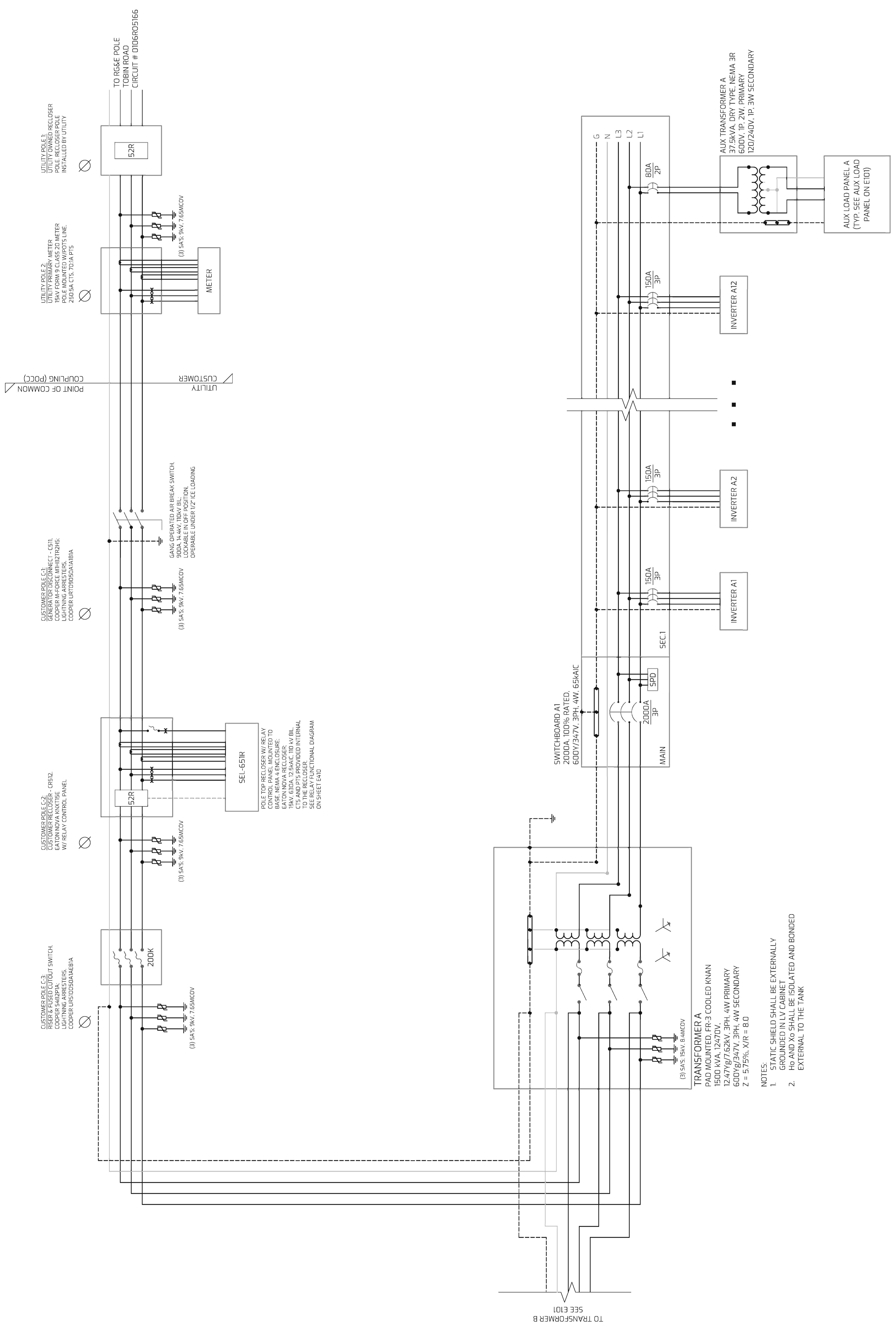
SYSTEM SUMMARY:
 (6912) HANWHA Q-CELL, Q1 PEAK DUO XL-G11.3/BFG, 580W MODULES; 4008.96 KWDC TOTAL
 (24) SUNGROW INVERTERS; 3000.00 KWAC TOTAL



NOT FOR CONSTRUCTION

REV	DESCRIPTION	DATE	BY
1	POLE LINE UP CHANGE	08/19/23	CRP
2	POLE LINE UP CHANGE & 3-LINE REVISION	08/29/23	CRP
3	30% DEVELOPMENT DESIGN	08/29/23	CRP
4	30% DEVELOPMENT DESIGN REV 1	09/18/23	CRP
5			
6			
7			

SCALE:	NONE
ISSUE DATE:	09/18/23
CRP	
DRAWN BY:	



- NOTES:
1. STATIC SHIELD SHALL BE EXTERNALLY GROUNDED IN LV CABINET Ho AND Xo SHALL BE ISOLATED AND BONDED EXTERNAL TO THE TANK
 - 2.

TRANSFORMER A
 PAD MOUNTED, FR-3 COOLED KNAN
 1500 KVA, 1247/0V,
 12.47Y/7.62KV, 3PH, 4W PRIMARY
 600Y/347V, 3PH, 4W SECONDARY
 Z = 5.75%, X/R = 8.0

SWITCHBOARD A1
 2000A, 100% RATED
 600Y/347V, 3PH, 4W, 65KAIC
 MAIN
 SEC.1
 SPD

SEL-651R
 POLE TOP RECLOSER W/ RELAY CONTROL PANEL MOUNTED TO BASE, NEMA 4 ENCLOSURE, EATON NOVA RECLOSER, 15KV, 63DA, 12.5KAIC, 110 KV BIL, CTS AND PITS PROVIDED INTERNAL RELEASER. SEE REF. FUNCTIONAL DIAGRAM ON SHEET E101

UTILITY POLE 1:
 UTILITY OWNED RECLOSER
 POLE MOUNTED, NEMA 4
 INSTALLED BY UTILITY

UTILITY POLE 2:
 UTILITY PRIMARY METER
 POLE MOUNTED, NEMA 4
 POLE MOUNTED WIROTS LINE,
 250.5A CTS, 70-A PITS

CUSTOMER POLE C-1:
 GENERATOR DISCONNECT - 651L
 LIGHTNING ARRESTERS,
 COOPER URT0905DA1A1B1A

CUSTOMER POLE C-2:
 CUSTOMER RECLOSER - 651S2,
 W/ RELAY CONTROL PANEL

CUSTOMER POLE C-3:
 FUSED & FUSED CUTOUT SWITCH
 LIGHTNING ARRESTERS,
 COOPER URS1050DA1A1E1A

TO RG&E POLE
 TOBIN ROAD
 CIRCUIT # 0106R05166

52R

METER

GANG OPERATED AIR BREAK SWITCH,
 90DA, 14.4KV, 110KV BIL,
 LOCKABLE IN OFF POSITION,
 OPERABLE UNDER 12" ICE LOADING

(3) SAs: 9KV, 7.65MCOV

52R

(3) SAs: 9KV, 7.65MCOV

200K

(3) SAs: 9KV, 7.65MCOV

TO TRANSFORMER B
 SEE E101

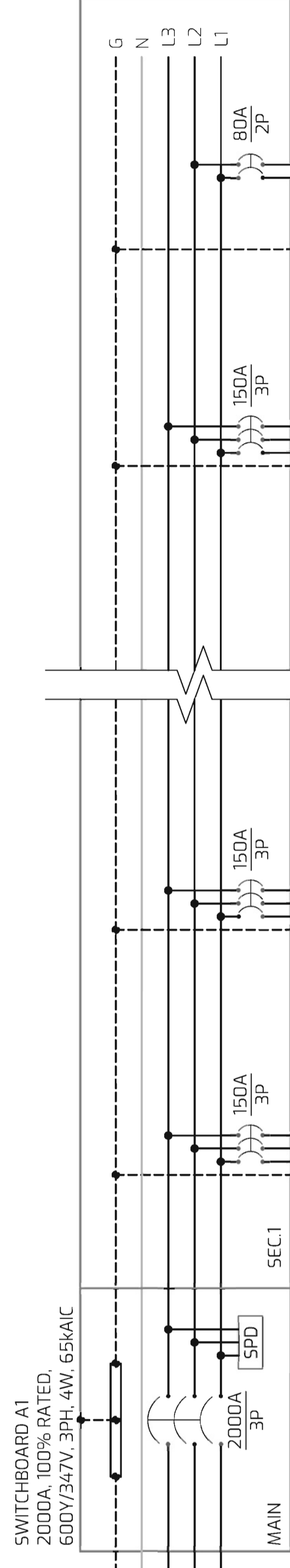
AUX TRANSFORMER A
 37.5KVA, DRY TYPE, NEMA 3R
 600V, 1P, 2W, PRIMARY
 120/240V, 1P, 3W SECONDARY

AUX LOAD PANEL A
 (TYP. SEE AUX LOAD
 PANEL ON E101)

INVERTER A12

INVERTER A2

INVERTER A1



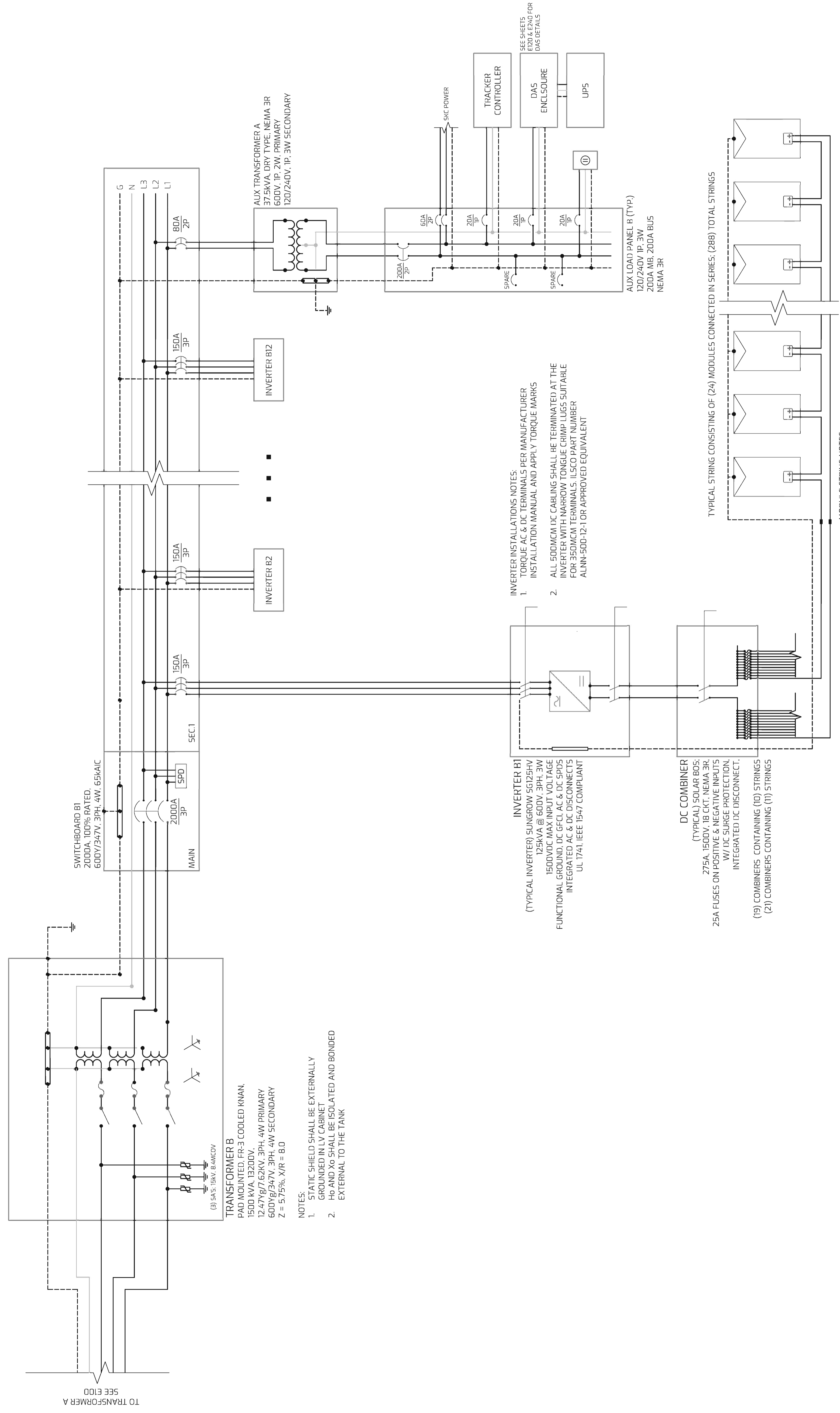
SYSTEM SUMMARY:
 (6912) HANWHA Q-CELL, Q, PEAK DUO XL-G11.3/BFG, 580W MODULES; 4008.960 KWDC TOTAL
 (24) SUNGROW INVERTERS; 3,000 KWAC TOTAL



NOT FOR CONSTRUCTION

REV	DESCRIPTION	DATE	BY
1	POLE LINE UP CHANGE	06/13/23	CRP
2	POLE LINE UP CHANGE & 3-LINE REVISION	06/29/23	CRP
3	30% DEVELOPMENT DESIGN	08/23/23	CRP
4	30% DEVELOPMENT DESIGN REV 1	09/18/23	CRP
5			
6			
7			

SCALE: NONE
 ISSUE DATE: 09/18/23
 DRAWN BY: CRP



- INVERTER INSTALLATIONS NOTES:**
1. TORQUE AC & DC TERMINALS PER MANUFACTURER INSTALLATION MANUAL AND APPLY TORQUE MARKS
 2. ALL 500MCM DC CABLING SHALL BE TERMINATED AT THE INVERTER WITH NARROW TONGUE CRIMP LUGS SUITABLE FOR 350MCM TERMINALS. ILSCO PART NUMBER ALNN-500-12-1 OR APPROVED EQUIVALENT

- MODULE STRING NOTES:**
1. INSTALL STRING NUMBER LABELS ON BOTH ENDS OF POSITIVE AND NEGATIVE HOMERUNS USING HEAT SHRINK LABELS SUITABLE FOR THE ENVIRONMENT
 2. FIELD INSTALL CONNECTOR, 2000V RATED. CONNECTOR MUST BE OF LATCHING OR LOCKING TYPE AND WHERE READILY ACCESSIBLE REQUIRE A TOOL FOR OPENING. WHERE MATING CONNECTORS ARE NOT OF IDENTICAL TYPE AND BRAND, THEY MUST BE LISTED AND IDENTIFIED FOR INTERMATABILITY AS DESCRIBED IN THE MANUFACTURER'S INSTRUCTIONS.

- NOTES:**
1. STATIC SHIELD SHALL BE EXTERNALLY GROUNDED IN LV CABINET
 2. Ho AND Xo SHALL BE ISOLATED AND BONDED EXTERNAL TO THE TANK

TRANSFORMER B
 PAD MOUNTED, FR-3 COOLED KNAN,
 1500 KVA, 13200V,
 12.47Y/7.62KV, 3PH, 4W PRIMARY
 600Y/347V, 3PH, 4W SECONDARY
 Z = 5.75%, X/R = 8.0

TO TRANSFORMER A
 SEE E100

TYPICAL STRING CONSISTING OF (24) MODULES CONNECTED IN SERIES; (288) TOTAL STRINGS

DC COMBINER
 (TYPICAL) SOLAR BOS:
 275A, 1500V, 18 CKT, NEMA 3R,
 25A FUSES ON POSITIVE & NEGATIVE INPUTS
 W/ DC SURGE PROTECTION,
 INTEGRATED DC DISCONNECT,
 (19) COMBINERS CONTAINING (10) STRINGS
 (21) COMBINERS CONTAINING (11) STRINGS

INVERTER B1
 (TYPICAL INVERTER) SUNGROW SG125HV
 125KVA @ 600V, 3PH, 3W
 1500VDC MAX INPUT VOLTAGE
 FUNCTIONAL GROUND, DC GFCL AC & DC SPD'S
 INTEGRATED AC & DC DISCONNECTS
 UL 1741, IEEE 1547 COMPLIANT

AUX TRANSFORMER A
 37.5KVA, DRY TYPE, NEMA 3R
 600V, 1P, 2W, PRIMARY
 120/240V, 1P, 3W SECONDARY

AUX LOAD PANEL B (TYP)
 120/240V 1P, 3W
 200A MB, 200A BUS
 NEMA 3R

Full Environmental Assessment Form
Part 1 - Project and Setting

Instructions for Completing Part 1

Part 1 is to be completed by the applicant or project sponsor. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification.

Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information; indicate whether missing information does not exist, or is not reasonably available to the sponsor; and, when possible, generally describe work or studies which would be necessary to update or fully develop that information.

Applicants/sponsors must complete all items in Sections A & B. In Sections C, D & E, most items contain an initial question that must be answered either “Yes” or “No”. If the answer to the initial question is “Yes”, complete the sub-questions that follow. If the answer to the initial question is “No”, proceed to the next question. Section F allows the project sponsor to identify and attach any additional information. Section G requires the name and signature of the applicant or project sponsor to verify that the information contained in Part 1 is accurate and complete.

A. Project and Applicant/Sponsor Information.

Name of Action or Project: Tobin Henrietta Solar Project		
Project Location (describe, and attach a general location map): 55 Tobin Road Henrietta, NY 14467 [Tax ID: 190.02-1-48.21]		
Brief Description of Proposed Action (include purpose or need): The proposed project is a 4 MW-DC, 3 MW-AC ground-mounted photovoltaic solar array that will be located at 55 Tobin Road Henrietta, NY. The project will be owned by Tobin Henrietta Solar LLC under a lease agreement with Mark and Linda Heintz, and constructed and operated by Sustainable Energy Developments, Inc., D.B.A. GreenSpark Solar. The array will interconnect to the Rochester Gas & Electric (RG&E) utility grid, and will include approximately 6,912 modules on a ground mounted, pier driven racking system. The proposed installation would occupy approximately 14.6 acres of the 28.53-acre parcel, with an additional area of approximately 0.66 acres of access road outside the fence line. Ground disturbance would be limited to the pier driven posts of the racking system, the electrical trenches, parking/staging area, and the fence line. The power generated by the project is intended for Community Solar Array off-takers through a net metering agreement.		
Name of Applicant/Sponsor: Tobin Henrietta Solar LLC	Telephone: 5 [REDACTED]	E-Mail: [REDACTED]
Address: 318 Timothy Lane		
City/PO: Ontario	State: NY	Zip Code: 14519
Project Contact (if not same as sponsor; give name and title/role): Matthew Vanderbrook, Director of Commercial Origination, GreenSpark Solar	Telephone: 5 [REDACTED]	E-Mail: [REDACTED].com
Address: 318 Timothy Lane		
City/PO: Ontario	State: NY	Zip Code: 14519
Property Owner (if not same as sponsor): Mark and Linda Heintz	Telephone: [REDACTED]	E-Mail: [REDACTED]
Address: 55 Tobin Road		
City/PO: Henrietta	State: NY	Zip Code: 14467

B. Government Approvals

B. Government Approvals, Funding, or Sponsorship. (“Funding” includes grants, loans, tax relief, and any other forms of financial assistance.)		
Government Entity	If Yes: Identify Agency and Approval(s) Required	Application Date (Actual or projected)
a. City Counsel, Town Board, or Village Board of Trustees <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Town of Henrietta Town Board (Special Use Permit)	October 2023
b. City, Town or Village Planning Board or Commission <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Town of Henrietta Planning Board (Site Plan Approval)	October 2023
c. City, Town or Village Zoning Board of Appeals <input type="checkbox"/> Yes <input type="checkbox"/> No		
d. Other local agencies <input type="checkbox"/> Yes <input type="checkbox"/> No		
e. County agencies <input type="checkbox"/> Yes <input type="checkbox"/> No		
f. Regional agencies <input type="checkbox"/> Yes <input type="checkbox"/> No		
g. State agencies <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	SEQR; SHPO Consultation; DEC SWPPP; NYSERDA funding	October 2023
h. Federal agencies <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	USFWS Consultation	October 2023
i. Coastal Resources.		
i. Is the project site within a Coastal Area, or the waterfront area of a Designated Inland Waterway?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
ii. Is the project site located in a community with an approved Local Waterfront Revitalization Program?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
iii. Is the project site within a Coastal Erosion Hazard Area?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

C. Planning and Zoning

C.1. Planning and zoning actions.	
Will administrative or legislative adoption, or amendment of a plan, local law, ordinance, rule or regulation be the only approval(s) which must be granted to enable the proposed action to proceed?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<ul style="list-style-type: none"> • If Yes, complete sections C, F and G. • If No, proceed to question C.2 and complete all remaining sections and questions in Part 1 	
C.2. Adopted land use plans.	
a. Do any municipally- adopted (city, town, village or county) comprehensive land use plan(s) include the site where the proposed action would be located?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
If Yes, does the comprehensive plan include specific recommendations for the site where the proposed action would be located?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
b. Is the site of the proposed action within any local or regional special planning district (for example: Greenway; Brownfield Opportunity Area (BOA); designated State or Federal heritage area; watershed management plan; or other?)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
If Yes, identify the plan(s): NYS Heritage Areas: West Erie Canal Corridor	

c. Is the proposed action located wholly or partially within an area listed in an adopted municipal open space plan, or an adopted municipal farmland protection plan?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
If Yes, identify the plan(s): Town of Henrietta Agricultural Development and Farmland Protection Plan: Monroe County Eastern Ag District 6	

C.3. Zoning

a. Is the site of the proposed action located in a municipality with an adopted zoning law or ordinance. Yes No
If Yes, what is the zoning classification(s) including any applicable overlay district?

Rural Residential Zoning District (RR) _____

b. Is the use permitted or allowed by a special or conditional use permit? Yes No

c. Is a zoning change requested as part of the proposed action? Yes No

If Yes,
i. What is the proposed new zoning for the site? _____

C.4. Existing community services.

a. In what school district is the project site located? Rush Henrietta Cent (265001)

b. What police or other public protection forces serve the project site?
New York State Police Troop T Henrietta

c. Which fire protection and emergency medical services serve the project site?
Henrietta Fire Company No.1

d. What parks serve the project site?
N/A

D. Project Details

D.1. Proposed and Potential Development

a. What is the general nature of the proposed action (e.g., residential, industrial, commercial, recreational; if mixed, include all components)? Commercial

b. a. Total acreage of the site of the proposed action? 28.53 acres
b. Total acreage to be physically disturbed? 14.6 acres
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 28.53 acres

c. Is the proposed action an expansion of an existing project or use? Yes No
i. If Yes, what is the approximate percentage of the proposed expansion and identify the units (e.g., acres, miles, housing units, square feet)? % _____ Units: _____

d. Is the proposed action a subdivision, or does it include a subdivision? Yes No
If Yes,
i. Purpose or type of subdivision? (e.g., residential, industrial, commercial; if mixed, specify types) _____

ii. Is a cluster/conservation layout proposed? Yes No
iii. Number of lots proposed? _____
iv. Minimum and maximum proposed lot sizes? Minimum _____ Maximum _____

e. Will the proposed action be constructed in multiple phases? Yes No
i. If No, anticipated period of construction: 6 months
ii. If Yes:
• Total number of phases anticipated _____
• Anticipated commencement date of phase I (including demolition) _____ month _____ year
• Anticipated completion date of final phase _____ month _____ year
• Generally describe connections or relationships among phases, including any contingencies where progress of one phase may determine timing or duration of future phases: _____

f. Does the project include new residential uses? Yes No
 If Yes, show numbers of units proposed.

	<u>One Family</u>	<u>Two Family</u>	<u>Three Family</u>	<u>Multiple Family (four or more)</u>
Initial Phase	_____	_____	_____	_____
At completion	_____	_____	_____	_____
of all phases	_____	_____	_____	_____

g. Does the proposed action include new non-residential construction (including expansions)? Yes No
 If Yes,

i. Total number of structures _____
 ii. Dimensions (in feet) of largest proposed structure: _____ height; _____ width; and _____ length
 iii. Approximate extent of building space to be heated or cooled: _____ square feet

h. Does the proposed action include construction or other activities that will result in the impoundment of any liquids, such as creation of a water supply, reservoir, pond, lake, waste lagoon or other storage? Yes No
 If Yes,

i. Purpose of the impoundment: _____
 ii. If a water impoundment, the principal source of the water: Ground water Surface water streams Other specify: _____
 iii. If other than water, identify the type of impounded/contained liquids and their source. _____
 iv. Approximate size of the proposed impoundment. Volume: _____ million gallons; surface area: _____ acres
 v. Dimensions of the proposed dam or impounding structure: _____ height; _____ length
 vi. Construction method/materials for the proposed dam or impounding structure (e.g., earth fill, rock, wood, concrete): _____

D.2. Project Operations

a. Does the proposed action include any excavation, mining, or dredging, during construction, operations, or both? Yes No
 (Not including general site preparation, grading or installation of utilities or foundations where all excavated materials will remain onsite)
 If Yes:

i. What is the purpose of the excavation or dredging? _____
 ii. How much material (including rock, earth, sediments, etc.) is proposed to be removed from the site?
 • Volume (specify tons or cubic yards): _____
 • Over what duration of time? _____
 iii. Describe nature and characteristics of materials to be excavated or dredged, and plans to use, manage or dispose of them. _____

 iv. Will there be onsite dewatering or processing of excavated materials? Yes No
 If yes, describe. _____

 v. What is the total area to be dredged or excavated? _____ acres
 vi. What is the maximum area to be worked at any one time? _____ acres
 vii. What would be the maximum depth of excavation or dredging? _____ feet
 viii. Will the excavation require blasting? Yes No
 ix. Summarize site reclamation goals and plan: _____

b. Would the proposed action cause or result in alteration of, increase or decrease in size of, or encroachment into any existing wetland, waterbody, shoreline, beach or adjacent area? Yes No
 If Yes:

i. Identify the wetland or waterbody which would be affected (by name, water index number, wetland map number or geographic description): During the delineation, two (2) wetland systems, totaling 2.39-acres, and two (2) streams, totaling 1,069-linear feet, were delineated within the Project Study Limits. It is likely that NYSDEC will invoke jurisdiction over Wetland 001 under Article 24: Freshwater Wetlands Program of the ECL since they are associated with NYSDEC Wetland HR-3 and its regulated 100-foot upland area.

ii. Describe how the proposed action would affect that waterbody or wetland, e.g. excavation, fill, placement of structures, or alteration of channels, banks and shorelines. Indicate extent of activities, alterations and additions in square feet or acres:
Placement of solar array will avoid delineated Wetland 001 and it's regulated 100-foot upland adjacent area. Panels and Posts are proposed in the area of delineated wetland PEM 002. The driving of posts in the wetland would not result in any discharge of dredged or fill material.

iii. Will the proposed action cause or result in disturbance to bottom sediments? Yes No

If Yes, describe: _____

iv. Will the proposed action cause or result in the destruction or removal of aquatic vegetation? Yes No

If Yes:

- acres of aquatic vegetation proposed to be removed: _____
- expected acreage of aquatic vegetation remaining after project completion: _____
- purpose of proposed removal (e.g. beach clearing, invasive species control, boat access): _____
- proposed method of plant removal: _____
- if chemical/herbicide treatment will be used, specify product(s): _____

v. Describe any proposed reclamation/mitigation following disturbance: _____

c. Will the proposed action use, or create a new demand for water? Yes No

If Yes:

i. Total anticipated water usage/demand per day: _____ gallons/day

ii. Will the proposed action obtain water from an existing public water supply? Yes No

If Yes:

- Name of district or service area: _____
- Does the existing public water supply have capacity to serve the proposal? Yes No
- Is the project site in the existing district? Yes No
- Is expansion of the district needed? Yes No
- Do existing lines serve the project site? Yes No

iii. Will line extension within an existing district be necessary to supply the project? Yes No

If Yes:

- Describe extensions or capacity expansions proposed to serve this project: _____
- Source(s) of supply for the district: _____

iv. Is a new water supply district or service area proposed to be formed to serve the project site? Yes No

If, Yes:

- Applicant/sponsor for new district: _____
- Date application submitted or anticipated: _____
- Proposed source(s) of supply for new district: _____

v. If a public water supply will not be used, describe plans to provide water supply for the project: _____

vi. If water supply will be from wells (public or private), what is the maximum pumping capacity: _____ gallons/minute.

d. Will the proposed action generate liquid wastes? Yes No

If Yes:

i. Total anticipated liquid waste generation per day: _____ gallons/day

ii. Nature of liquid wastes to be generated (e.g., sanitary wastewater, industrial; if combination, describe all components and approximate volumes or proportions of each): _____

iii. Will the proposed action use any existing public wastewater treatment facilities? Yes No

If Yes:

- Name of wastewater treatment plant to be used: _____
- Name of district: _____
- Does the existing wastewater treatment plant have capacity to serve the project? Yes No
- Is the project site in the existing district? Yes No
- Is expansion of the district needed? Yes No

<ul style="list-style-type: none"> • Do existing sewer lines serve the project site? _____ • Will a line extension within an existing district be necessary to serve the project? If Yes: <ul style="list-style-type: none"> • Describe extensions or capacity expansions proposed to serve this project: _____ 	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No
<p>iv. Will a new wastewater (sewage) treatment district be formed to serve the project site? If Yes:</p> <ul style="list-style-type: none"> • Applicant/sponsor for new district: _____ • Date application submitted or anticipated: _____ • What is the receiving water for the wastewater discharge? _____ 	<input type="checkbox"/> Yes <input type="checkbox"/> No
<p>v. If public facilities will not be used, describe plans to provide wastewater treatment for the project, including specifying proposed receiving water (name and classification if surface discharge or describe subsurface disposal plans): _____ _____</p>	
<p>vi. Describe any plans or designs to capture, recycle or reuse liquid waste: _____ _____ _____</p>	
<p>e. Will the proposed action disturb more than one acre and create stormwater runoff, either from new point sources (i.e. ditches, pipes, swales, curbs, gutters or other concentrated flows of stormwater) or non-point source (i.e. sheet flow) during construction or post construction? If Yes:</p> <p>i. How much impervious surface will the project create in relation to total size of project parcel? _____ Square feet or _____ 0 acres (impervious surface) _____ Square feet or _____ 28.53 acres (parcel size)</p> <p>ii. Describe types of new point sources. <u>No new point sources</u> _____</p> <p>iii. Where will the stormwater runoff be directed (i.e. on-site stormwater management facility/structures, adjacent properties, groundwater, on-site surface water or off-site surface waters)? Stormwater will be managed in accordance with the Stormwater Pollution Prevention Plan (SWPPP) developed for this project. Stormwater will be managed on-site.</p> <ul style="list-style-type: none"> • If to surface waters, identify receiving water bodies or wetlands: _____ • Will stormwater runoff flow to adjacent properties? _____ 	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<p>iv. Does the proposed plan minimize impervious surfaces, use pervious materials or collect and re-use stormwater?</p>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<p>f. Does the proposed action include, or will it use on-site, one or more sources of air emissions, including fuel combustion, waste incineration, or other processes or operations? If Yes, identify:</p> <p>i. Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles) _____</p> <p>ii. Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers) _____</p> <p>iii. Stationary sources during operations (e.g., process emissions, large boilers, electric generation) _____</p>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<p>g. Will any air emission sources named in D.2.f (above), require a NY State Air Registration, Air Facility Permit, or Federal Clean Air Act Title IV or Title V Permit? If Yes:</p> <p>i. Is the project site located in an Air quality non-attainment area? (Area routinely or periodically fails to meet ambient air quality standards for all or some parts of the year)</p> <p>ii. In addition to emissions as calculated in the application, the project will generate:</p> <ul style="list-style-type: none"> • _____ Tons/year (short tons) of Carbon Dioxide (CO₂) • _____ Tons/year (short tons) of Nitrous Oxide (N₂O) • _____ Tons/year (short tons) of Perfluorocarbons (PFCs) • _____ Tons/year (short tons) of Sulfur Hexafluoride (SF₆) • _____ Tons/year (short tons) of Carbon Dioxide equivalent of Hydroflouorocarbons (HFCs) • _____ Tons/year (short tons) of Hazardous Air Pollutants (HAPs) 	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No

h. Will the proposed action generate or emit methane (including, but not limited to, sewage treatment plants, landfills, composting facilities)? Yes No

If Yes:

i. Estimate methane generation in tons/year (metric): _____

ii. Describe any methane capture, control or elimination measures included in project design (e.g., combustion to generate heat or electricity, flaring): _____

i. Will the proposed action result in the release of air pollutants from open-air operations or processes, such as quarry or landfill operations? Yes No

If Yes: Describe operations and nature of emissions (e.g., diesel exhaust, rock particulates/dust): _____

j. Will the proposed action result in a substantial increase in traffic above present levels or generate substantial new demand for transportation facilities or services? Yes No

If Yes:

i. When is the peak traffic expected (Check all that apply): Morning Evening Weekend
 Randomly between hours of _____ to _____.

ii. For commercial activities only, projected number of truck trips/day and type (e.g., semi trailers and dump trucks): _____

iii. Parking spaces: Existing _____ Proposed _____ Net increase/decrease _____

iv. Does the proposed action include any shared use parking? Yes No

v. If the proposed action includes any modification of existing roads, creation of new roads or change in existing access, describe: _____

vi. Are public/private transportation service(s) or facilities available within 1/2 mile of the proposed site? Yes No

vii. Will the proposed action include access to public transportation or accommodations for use of hybrid, electric or other alternative fueled vehicles? Yes No

viii. Will the proposed action include plans for pedestrian or bicycle accommodations for connections to existing pedestrian or bicycle routes? Yes No

k. Will the proposed action (for commercial or industrial projects only) generate new or additional demand for energy? Yes No

If Yes:

i. Estimate annual electricity demand during operation of the proposed action: _____

ii. Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/local utility, or other): _____

iii. Will the proposed action require a new, or an upgrade, to an existing substation? Yes No

l. Hours of operation. Answer all items which apply.

<p>i. During Construction:</p> <ul style="list-style-type: none"> • Monday - Friday: _____ 8am - 4pm _____ • Saturday: _____ N/A _____ • Sunday: _____ N/A _____ • Holidays: _____ N/A _____ 	<p>ii. During Operations:</p> <ul style="list-style-type: none"> • Monday - Friday: _____ Continuous generation _____ • Saturday: _____ Continuous generation _____ • Sunday: _____ Continuous generation _____ • Holidays: _____ Continuous generation _____
--	---

m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction, operation, or both? Yes No
 If yes:
 i. Provide details including sources, time of day and duration:
 Noise production may exceed ambient noise levels during construction, primarily during normal weekday business hours. Operation of the solar array project will not exceed ambient noise levels.

ii. Will the proposed action remove existing natural barriers that could act as a noise barrier or screen? Yes No
 Describe: _____

n. Will the proposed action have outdoor lighting? Yes No
 If yes:
 i. Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures:

ii. Will proposed action remove existing natural barriers that could act as a light barrier or screen? Yes No
 Describe: _____

o. Does the proposed action have the potential to produce odors for more than one hour per day? Yes No
 If Yes, describe possible sources, potential frequency and duration of odor emissions, and proximity to nearest occupied structures: _____

p. Will the proposed action include any bulk storage of petroleum (combined capacity of over 1,100 gallons) or chemical products 185 gallons in above ground storage or any amount in underground storage? Yes No
 If Yes:
 i. Product(s) to be stored _____
 ii. Volume(s) _____ per unit time _____ (e.g., month, year)
 iii. Generally, describe the proposed storage facilities: _____

q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides, insecticides) during construction or operation? Yes No
 If Yes:
 i. Describe proposed treatment(s):

ii. Will the proposed action use Integrated Pest Management Practices? Yes No

r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal of solid waste (excluding hazardous materials)? Yes No
 If Yes:
 i. Describe any solid waste(s) to be generated during construction or operation of the facility:
 • Construction: _____ < 1 tons per _____ 6 mon (total) (unit of time)
 • Operation : _____ tons per _____ (unit of time)
 ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste:
 • Construction: Minimal solar waste will be generated solely during the construction of the project and will be removed by the contractors and disposed of in accordance with proper methods acceptable to NYS.
 • Operation: There will be no resulting solid waste from ongoing operations.
 iii. Proposed disposal methods/facilities for solid waste generated on-site:
 • Construction: removal from site; recycled according to standards; landfill disposal for non-recyclable or reusable materials
 • Operation: N/A

s. Does the proposed action include construction or modification of a solid waste management facility? Yes No
 If Yes:
 i. Type of management or handling of waste proposed for the site (e.g., recycling or transfer station, composting, landfill, or other disposal activities): _____
 ii. Anticipated rate of disposal/processing:
 • _____ Tons/month, if transfer or other non-combustion/thermal treatment, or
 • _____ Tons/hour, if combustion or thermal treatment
 iii. If landfill, anticipated site life: _____ years

t. Will the proposed action at the site involve the commercial generation, treatment, storage, or disposal of hazardous waste? Yes No
 If Yes:
 i. Name(s) of all hazardous wastes or constituents to be generated, handled or managed at facility: _____

 ii. Generally describe processes or activities involving hazardous wastes or constituents: _____

 iii. Specify amount to be handled or generated _____ tons/month
 iv. Describe any proposals for on-site minimization, recycling or reuse of hazardous constituents: _____

 v. Will any hazardous wastes be disposed at an existing offsite hazardous waste facility? Yes No
 If Yes: provide name and location of facility: _____

 If No: describe proposed management of any hazardous wastes which will not be sent to a hazardous waste facility:

E. Site and Setting of Proposed Action

E.1. Land uses on and surrounding the project site

a. Existing land uses.
 i. Check all uses that occur on, adjoining and near the project site.
 Urban Industrial Commercial Residential (suburban) Rural (non-farm)
 Forest Agriculture Aquatic Other (specify): _____
 ii. If mix of uses, generally describe:
 Rural Residential Zones

b. Land uses and covertypes on the project site.

Land use or Covertype	Current Acreage	Acreage After Project Completion	Change (Acres +/-)
• Roads, buildings, and other paved or impervious surfaces	-	0.66 acres	+0.66 acres
• Forested	5.85 acres	3.35 acres	-2.5 acres
• Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural)	8.93 acres	6.1 acres	-2.83 acres
• Agricultural (includes active orchards, field, greenhouse etc.)	12.79 acres	2.3 acres	-10.49 acres
• Surface water features (lakes, ponds, streams, rivers, etc.)	-	-	
• Wetlands (freshwater or tidal)	2.39 acres	2.93 acres	0
• Non-vegetated (bare rock, earth or fill)	-	-	-
• Other Describe: <u>Solar array</u>	-	14.1 acres	+14.1 acres

c. Is the project site presently used by members of the community for public recreation? Yes No
i. If Yes: explain: _____

d. Are there any facilities serving children, the elderly, people with disabilities (e.g., schools, hospitals, licensed day care centers, or group homes) within 1500 feet of the project site? Yes No
If Yes,
i. Identify Facilities:

e. Does the project site contain an existing dam? Yes No
If Yes:
i. Dimensions of the dam and impoundment:
• Dam height: _____ feet
• Dam length: _____ feet
• Surface area: _____ acres
• Volume impounded: _____ gallons OR acre-feet
ii. Dam's existing hazard classification: _____
iii. Provide date and summarize results of last inspection:

f. Has the project site ever been used as a municipal, commercial or industrial solid waste management facility, or does the project site adjoin property which is now, or was at one time, used as a solid waste management facility? Yes No
If Yes:
i. Has the facility been formally closed? Yes No
• If yes, cite sources/documentation: _____
ii. Describe the location of the project site relative to the boundaries of the solid waste management facility:

iii. Describe any development constraints due to the prior solid waste activities: _____

g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste? Yes No
If Yes:
i. Describe waste(s) handled and waste management activities, including approximate time when activities occurred:

h. Potential contamination history. Has there been a reported spill at the proposed project site, or have any remedial actions been conducted at or adjacent to the proposed site? Yes No
If Yes:
i. Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site Remediation database? Check all that apply: Yes No
 Yes – Spills Incidents database Provide DEC ID number(s): _____
 Yes – Environmental Site Remediation database Provide DEC ID number(s): _____
 Neither database
ii. If site has been subject of RCRA corrective activities, describe control measures: _____
iii. Is the project within 2000 feet of any site in the NYSDEC Environmental Site Remediation database? Yes No
If yes, provide DEC ID number(s): _____
iv. If yes to (i), (ii) or (iii) above, describe current status of site(s): _____

v. Is the project site subject to an institutional control limiting property uses? Yes No

- If yes, DEC site ID number: _____
- Describe the type of institutional control (e.g., deed restriction or easement): _____
- Describe any use limitations: _____
- Describe any engineering controls: _____
- Will the project affect the institutional or engineering controls in place? Yes No
- Explain: _____

E.2. Natural Resources On or Near Project Site

a. What is the average depth to bedrock on the project site? _____ > 6.5 feet

b. Are there bedrock outcroppings on the project site? Yes No
 If Yes, what proportion of the site is comprised of bedrock outcroppings? _____ %

c. Predominant soil type(s) present on project site:

Hilton loam	44.5 %
Canandaigua silt loam	27.5 %
Ontario loam	14.2 %

d. What is the average depth to the water table on the project site? Average: _____ 1.8 feet

e. Drainage status of project site soils: Well Drained: _____ 14.2 % of site
 Moderately Well Drained: _____ 44.5 % of site
 Poorly Drained _____ 41.3 % of site

f. Approximate proportion of proposed action site with slopes: 0-10%: _____ 100 % of site
 10-15%: _____ % of site
 15% or greater: _____ % of site

g. Are there any unique geologic features on the project site? Yes No
 If Yes, describe: _____

h. Surface water features.

i. Does any portion of the project site contain wetlands or other waterbodies (including streams, rivers, ponds or lakes)? Yes No

ii. Do any wetlands or other waterbodies adjoin the project site? Yes No
 If Yes to either *i* or *ii*, continue. If No, skip to E.2.i.

iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated by any federal, state or local agency? Yes No

iv. For each identified regulated wetland and waterbody on the project site, provide the following information:

- Streams: Name 821-10 Classification C
- Lakes or Ponds: Name _____ Classification _____
- Wetlands: Name Federal Waters, NYS Wetland, Federal Waters, Fe... Approximate Size NYS Wetland (in a...
- Wetland No. (if regulated by DEC) HR-3

v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies? Yes No
 If yes, name of impaired water body/bodies and basis for listing as impaired: _____
 Name - Pollutants - Uses: Red Creek and tributaries – Unknown Toxicity – Recreation; Aquatic Life

i. Is the project site in a designated Floodway? Yes No

j. Is the project site in the 100-year Floodplain? Yes No

k. Is the project site in the 500-year Floodplain? Yes No

l. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer? Yes No
 If Yes:
 i. Name of aquifer: _____

m. Identify the predominant wildlife species that occupy or use the project site: _____ Small Mammals _____ Deer _____ _____	
n. Does the project site contain a designated significant natural community? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes: i. Describe the habitat/community (composition, function, and basis for designation): _____ ii. Source(s) of description or evaluation: _____ iii. Extent of community/habitat: • Currently: _____ acres • Following completion of project as proposed: _____ acres • Gain or loss (indicate + or -): _____ acres	
o. Does project site contain any species of plant or animal that is listed by the federal government or NYS as endangered or threatened, or does it contain any areas identified as habitat for an endangered or threatened species? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes: i. Species and listing (endangered or threatened): _____ _____ _____	
p. Does the project site contain any species of plant or animal that is listed by NYS as rare, or as a species of special concern? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes: i. Species and listing: _____ _____	
q. Is the project site or adjoining area currently used for hunting, trapping, fishing or shell fishing? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, give a brief description of how the proposed action may affect that use: _____ _____	
E.3. Designated Public Resources On or Near Project Site	
a. Is the project site, or any portion of it, located in a designated agricultural district certified pursuant to Agriculture and Markets Law, Article 25-AA, Section 303 and 304? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If Yes, provide county plus district name/number: <u>MONRcn6</u>	
b. Are agricultural lands consisting of highly productive soils present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No i. If Yes: acreage(s) on project site? <u>16.7 acres</u> ii. Source(s) of soil rating(s): <u>NRCS Soil Map; 2023 NEW YORK AGRICULTURAL LAND CLASSIFICATION - MONROE - JANUARY 1, 2023</u>	
c. Does the project site contain all or part of, or is it substantially contiguous to, a registered National Natural Landmark? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes: i. Nature of the natural landmark: <input type="checkbox"/> Biological Community <input type="checkbox"/> Geological Feature ii. Provide brief description of landmark, including values behind designation and approximate size/extent: _____ _____ _____	
d. Is the project site located in or does it adjoin a state listed Critical Environmental Area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes: i. CEA name: _____ ii. Basis for designation: _____ iii. Designating agency and date: _____	

e. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places? Yes No

If Yes:

i. Nature of historic/archaeological resource: Archaeological Site Historic Building or District

ii. Name: _____

iii. Brief description of attributes on which listing is based: _____

f. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory? Yes No

g. Have additional archaeological or historic site(s) or resources been identified on the project site? Yes No

If Yes:

i. Describe possible resource(s): _____

ii. Basis for identification: _____

h. Is the project site within five miles of any officially designated and publicly accessible federal, state, or local scenic or aesthetic resource? Yes No

If Yes:

i. Identify resource: _____

ii. Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historic trail or scenic byway, etc.): _____

iii. Distance between project and resource: _____ miles.

i. Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666? Yes No

If Yes:

i. Identify the name of the river and its designation: _____

ii. Is the activity consistent with development restrictions contained in 6NYCRR Part 666? Yes No

F. Additional Information

Attach any additional information which may be needed to clarify your project.

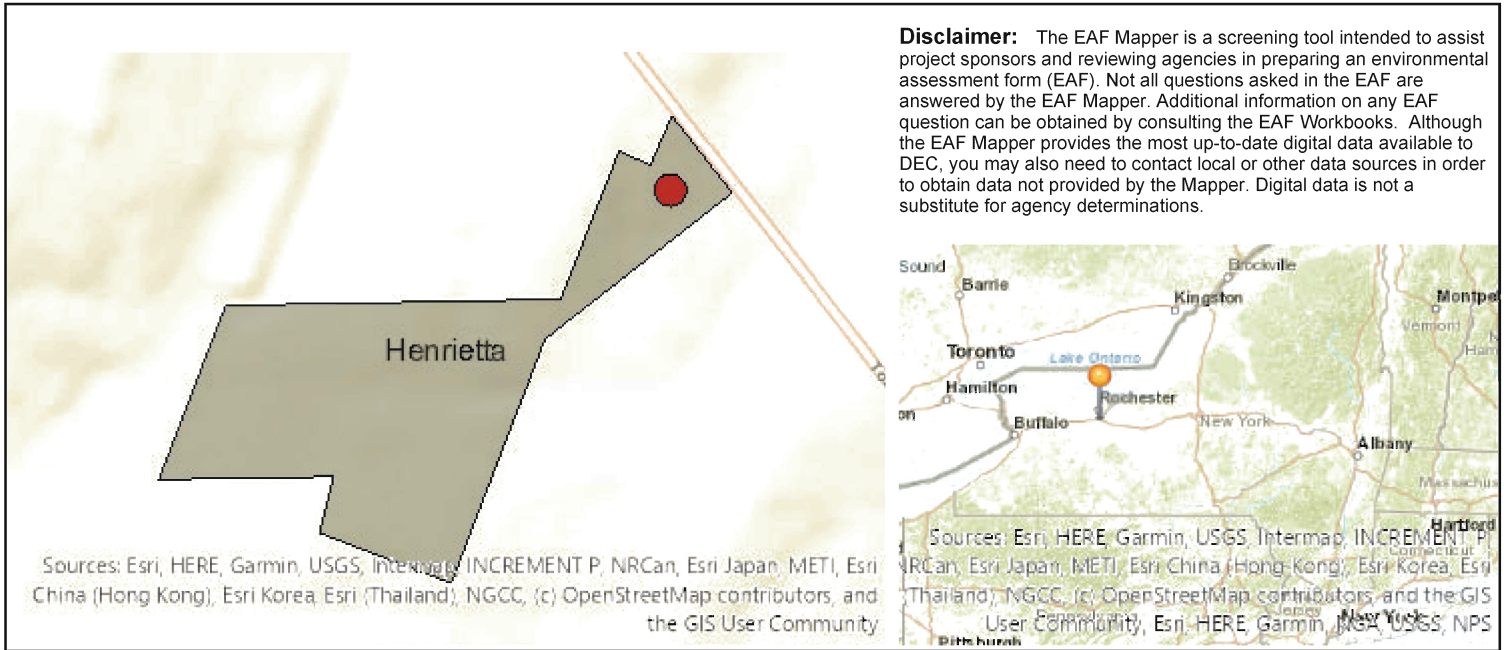
If you have identified any adverse impacts which could be associated with your proposal, please describe those impacts plus any measures which you propose to avoid or minimize them.

G. Verification

I certify that the information provided is true to the best of my knowledge.

Applicant/Sponsor Name Tobin Henrietta Solar LLC Date 10/6/23

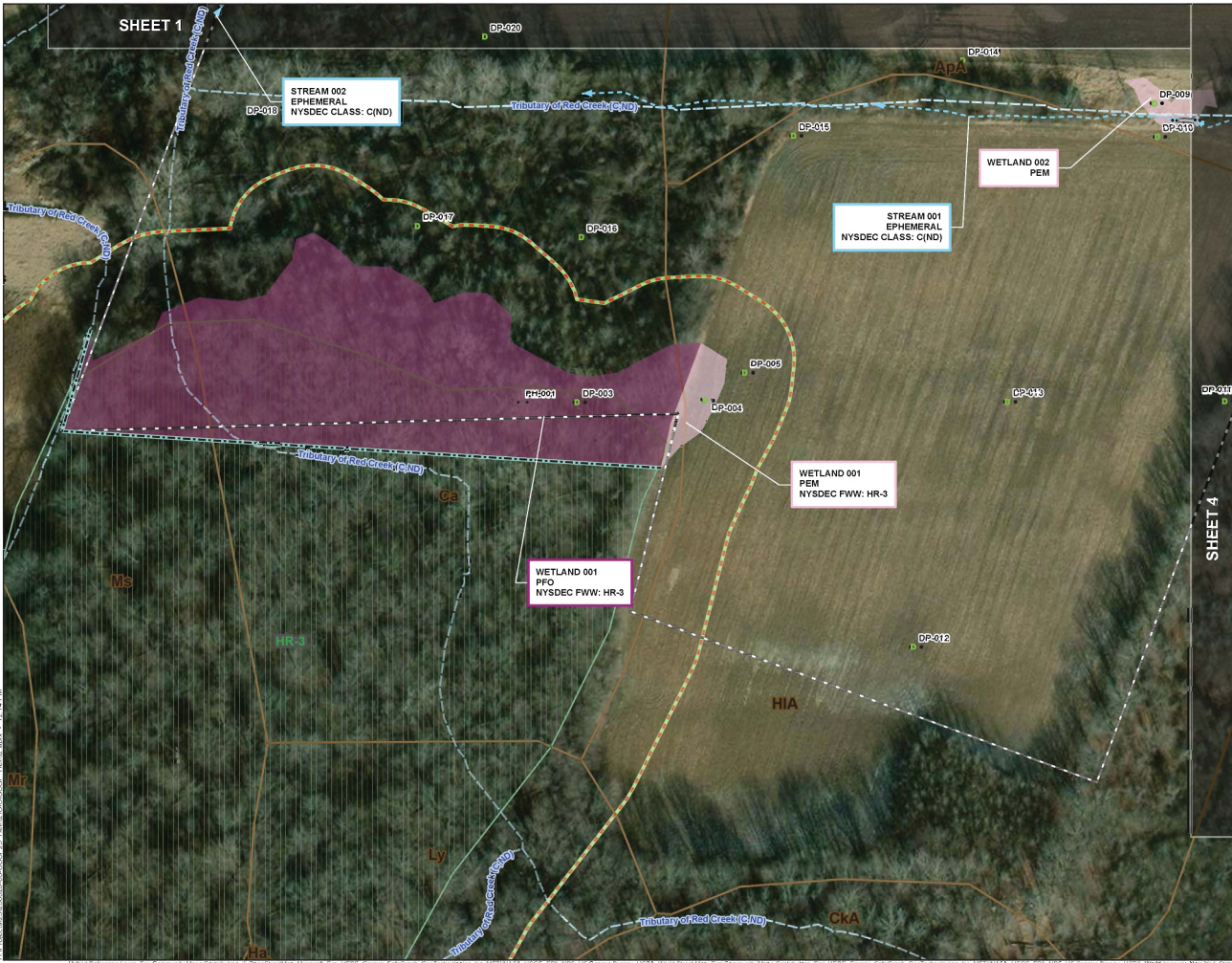
Signature  Title Manager



B.i.i [Coastal or Waterfront Area]	No
B.i.ii [Local Waterfront Revitalization Area]	No
C.2.b. [Special Planning District]	Yes - Digital mapping data are not available for all Special Planning Districts. Refer to EAF Workbook.
C.2.b. [Special Planning District - Name]	NYS Heritage Areas: West Erie Canal Corridor
E.1.h [DEC Spills or Remediation Site - Potential Contamination History]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Listed]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Environmental Site Remediation Database]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.iii [Within 2,000' of DEC Remediation Site]	No
E.2.g [Unique Geologic Features]	No
E.2.h.i [Surface Water Features]	Yes
E.2.h.ii [Surface Water Features]	Yes
E.2.h.iii [Surface Water Features]	Yes - Digital mapping information on local and federal wetlands and waterbodies is known to be incomplete. Refer to EAF Workbook.
E.2.h.iv [Surface Water Features - Stream Name]	821-10
E.2.h.iv [Surface Water Features - Stream Classification]	C
E.2.h.iv [Surface Water Features - Wetlands Name]	Federal Waters, NYS Wetland
E.2.h.iv [Surface Water Features - Wetlands Size]	NYS Wetland (in acres):69.0
E.2.h.iv [Surface Water Features - DEC Wetlands Number]	HR-3

E.2.h.v [Impaired Water Bodies]	Yes
E.2.h.v [Impaired Water Bodies - Name and Basis for Listing]	Name - Pollutants - Uses:Red Creek and tributaries – Unknown Toxicity – Recreation;Aquatic Life
E.2.i. [Floodway]	No
E.2.j. [100 Year Floodplain]	No
E.2.k. [500 Year Floodplain]	No
E.2.l. [Aquifers]	No
E.2.n. [Natural Communities]	No
E.2.o. [Endangered or Threatened Species]	No
E.2.p. [Rare Plants or Animals]	No
E.3.a. [Agricultural District]	Yes
E.3.a. [Agricultural District]	MONRcn6
E.3.c. [National Natural Landmark]	No
E.3.d [Critical Environmental Area]	No
E.3.e. [National or State Register of Historic Places or State Eligible Sites]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.3.f. [Archeological Sites]	No
E.3.i. [Designated River Corridor]	No

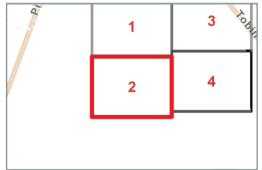
FIGURE 2: WETLAND AND WATERCOURSE
DELINEATION MAP



- Data Point
- Photo Point
- Delineated Continuation Line
- - - Fence
- Delineated Culvert
- NYSDEC Non-Regulated Stream
- Delineated Ephemeral Stream
- Delineated PEM Wetland
- Delineated PFO Wetland
- NRCS Soil Complex Boundary
- NYSDEC Wetlands
- NYSDEC 100ft Wetland Adjusted Adjacent Area
- Project Study Limits
- Matchline

Map Revision Date: 9/7/2023 Aerial Date: 2023

0 50 100 Feet

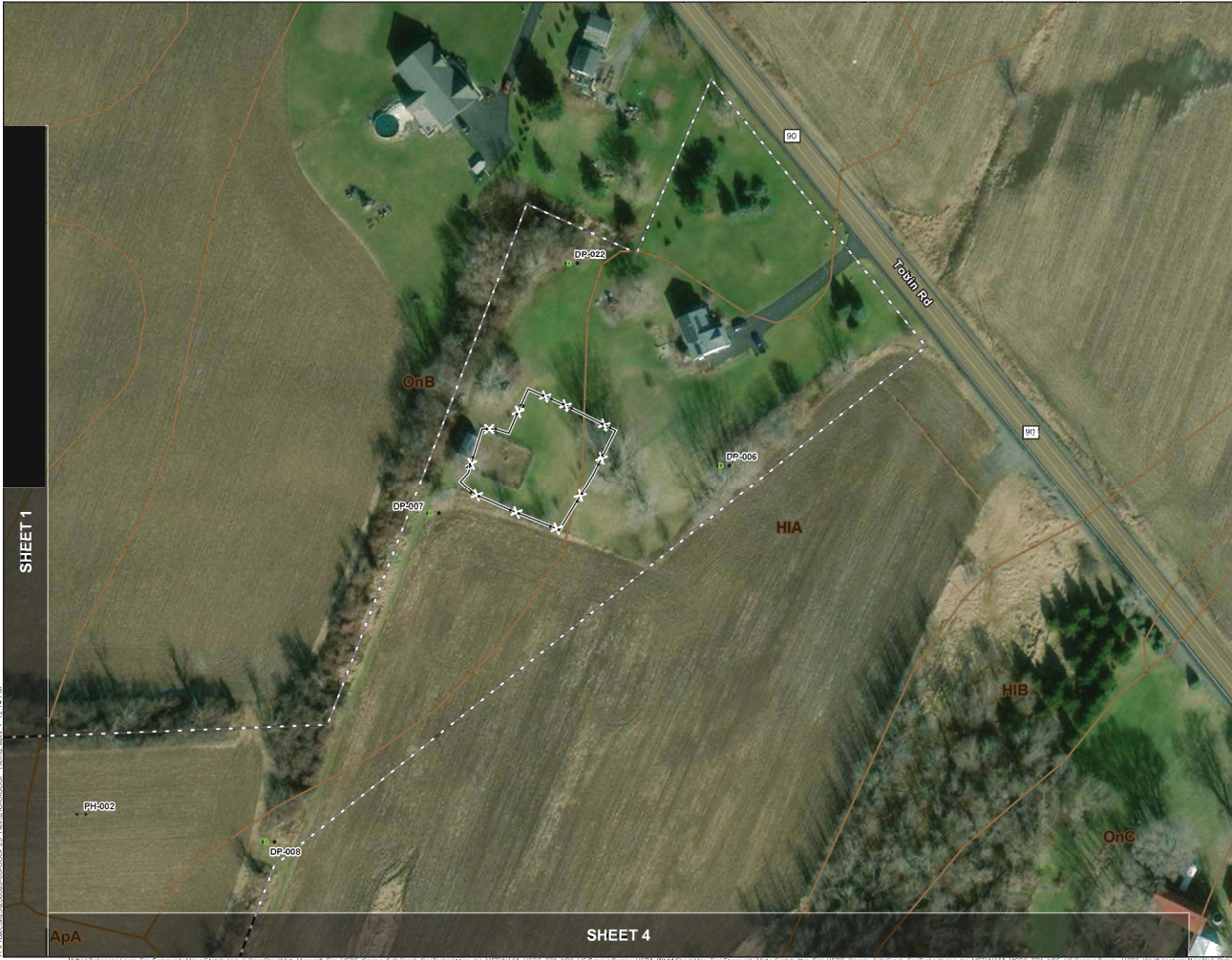
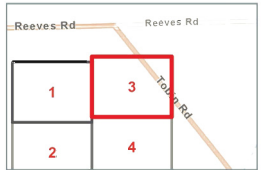




GREEN SPARK SOLAR
GSSP HEINTZ

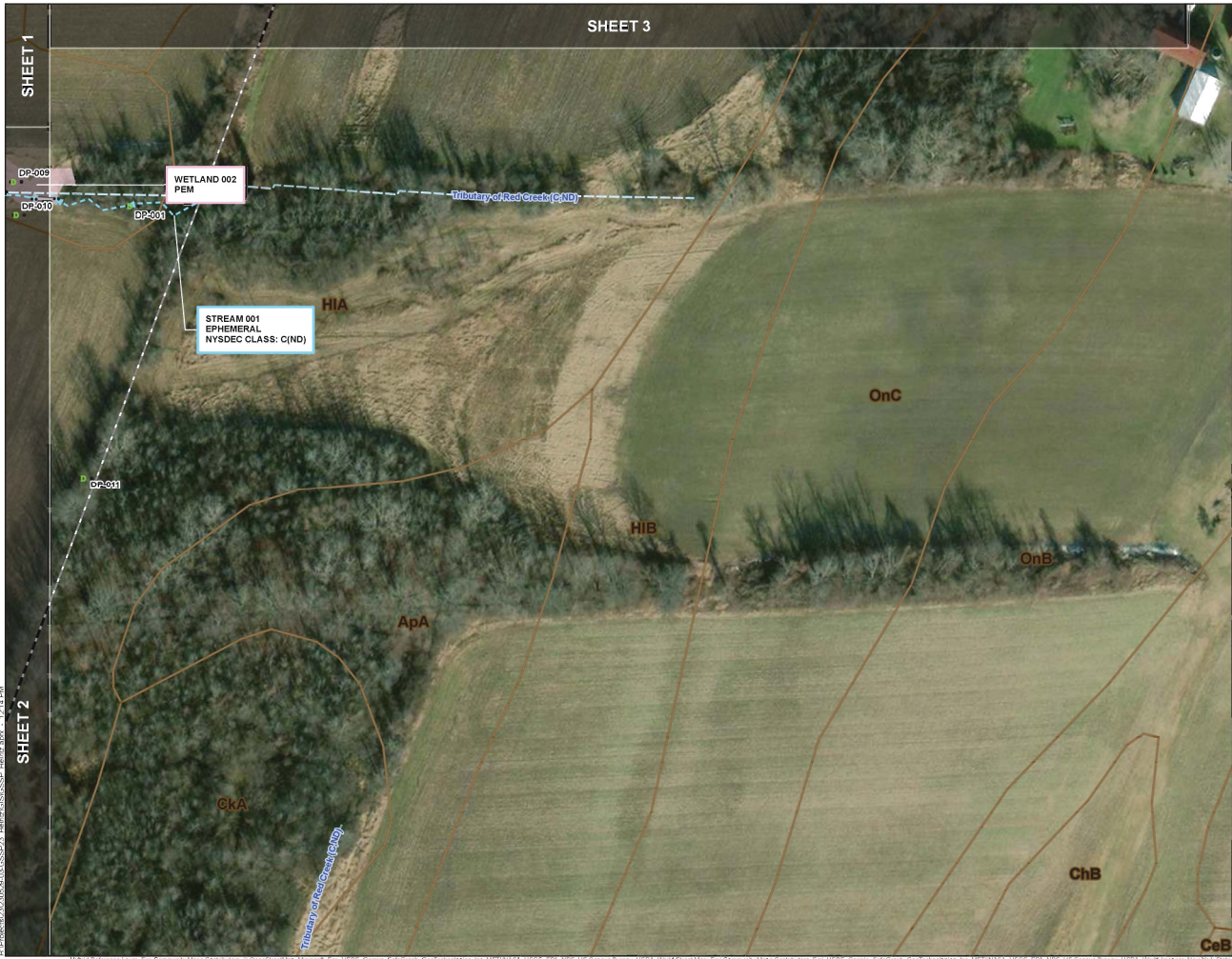
FIGURE 2: WETLAND AND WATERCOURSE
DELINEATION MAP

- Data Point
- Photo Point
- - - Delineated Continuation Line
- - - Fence
- - - Delineated Culvert
- - - NYSDEC Non-Regulated Stream
- - - Delineated Ephemeral Stream
- - - Delineated PEM Wetland
- - - Delineated PFO Wetland
- - - NRCS Soil Complex Boundary
- - - NYSDEC Wetlands
- - - NYSDEC 100ft Wetland Adjusted Adjacent Area
- - - Project Study Limits
- - - Matchline



1:\Projects\2023\2023_09_06_GSSP\2023_09_06_GSSP_Map\2023_09_06_GSSP_Map_2023_09_06_12:14 PM

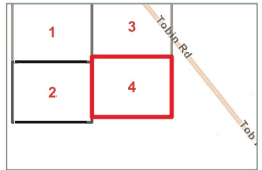
Map Reference Layer: Esri Community Maps Contributors | OpenStreetMap contributors | Esri, HERE, Garmin, Earthstar, GeoEye, GeoEye, Inc., INRS/USA, USGS, EPA, NPS, US Census Bureau, USGS, World Street Map, Esri, HERE, Garmin, Swirebird, Swirebird, Inc., INRS/USA, USGS, EPA, NPS, US Census Bureau, USGS, World Imagery, New York State



GREEN SPARK SOLAR
GSSP HEINTZ

FIGURE 2: WETLAND AND WATERCOURSE
DELINEATION MAP

- Data Point
- Photo Point
- Delineated Continuation Line
- - - Fence
- Delineated Culvert
- NYSDEC Non-Regulated Stream
- Delineated Ephemeral Stream
- Delineated PEM Wetland
- Delineated PFO Wetland
- NRCS Soil Complex Boundary
- NYSDEC Wetlands
- NYSDEC 100ft Wetland Adjusted Adjacent Area
- Project Study Limits
- Matchline





SITE PLAN CHECKLIST

PROJECT NAME: Tobin Henrietta Solar

APPLICATION No. _____

-
-
- 1 Acceptable plans size to match the New York State Legal Filing Size (22" x 34"), prepared with india ink on mylar. (Mylar not required by C. Martin)
 - 2 Except in the simplest form of site plan application, the proposal package should contain at least the following drawings:
 - a. Site Plan
 - b. Utility Plan
 - c. Grading Plan
 - d. Landscape Plan
 - e. Lighting Plan (N/A)
 - f. Profiles and Construction Details
 - g. Building Elevations (N/A)
 - 3 The Title Block should contain the following:
 - a. Proposed Name of Development
 - b. Location of Development
 - c. Name, Address, and Telephone Number of Developer or Applicant
 - d. Name, Address, and Seal of Engineer, Architect, and/or Land Surveyor
 - 4 Show General Location Map (sketch). North should be located at the top of the drawing.
 - 5 A scale of not more than fifty feet to the inch is to be used. (waived by printing 100' = 1 inch at larger size, per C. Martin)
 - 6 Show names and tax account numbers of adjacent lands.
 - 7 Indicate zoning by note. If more than one area, delineate the zoning on the plan view.
 - 8 By plan note, list all variances and special permits accompanied by Application Number and approval date.
 - 9 Show dimensions and bearings or angles of all property boundary lines. Show area to nearest square foot and 0.00+ acres
 - 10 Show a tie distance from the proposed site to nearest road intersection
 - 11 Show location width and type of all existing and/or proposed easements on the plan. Also, tabulate all of the easements on the plan and key by identifying numbers.
[Proposed easements for trail access still being coordinated; an updated ALTA map will be submitted by 12/1]



SITE PLAN CHECKLIST

PROJECT NAME: _____

APPLICATION No. _____

- 12 All State, County, and Town Survey Monuments on the site and within 100 feet of the site must be shown. Indicate on the plan the proposed protection from damage for the "on site" monuments. If no monuments exist on the site, a certification to that affect shall be placed on the plan by the surveyor.
- 13 A Letter of Credit in the amount of \$1,000.00 per monument will be required as protective measure for all Town, County, State, and Federal Monuments on site or those affected by the proposed construction.
- 14 List the names of existing streets, their legal width, and jurisdiction.
- 15 Show all existing driveways (curb cuts) within two hundred (200) feet of the proposed development as well as driveways (curb cuts) within two hundred (200) feet on the opposite side of the road.
- 16 Show planned use for the proposed structure (i.e. office etc). [N/A]
- 17 Show proposed and/or existing setbacks.
- 18 Show parking requirements (indicate the proposed and required).
- 19 Show the fire lanes.
- 20 The Landscaping Plan must be of the same scale as the Site Plan and contain the following minimums:
 - a. To scale plot of proposed trees and/or shrubs
 - b. The plan must contain a table of quantities. *See Appendix for proper requirements.*
 - c. Enlargement details for areas of proposal that are not legible at the plan scale.
 - d. The Planning Board requires that the Landscape Plan be signed off by a Licensed Landscape Architect or Certified Nursery Professional.
 - e. The Planning Board may also require that the proposed landscape be installed by a Certified New York State Nurseryman.
 - f. The Planning Board may require a Letter of Credit in the amount of the Landscape Contract and that the Letter of Credit be for a two year period to guarantee growth.
 - g. The Planning Board may also require that a Landscape Record Drawing, certified by a Licensed Archited, be provided. (Note: a Letter of Credit will be required to insure completion.)
- 21 All architecture plans must include elevation drawings of the proposed structure and be fully dimensioned, horizontally and vertically. (N/A)



SITE PLAN CHECKLIST

PROJECT NAME: Tobin Henrietta Solar

APPLICATION No. _____

- 22 Indicate the architectural treatment of the proposed and/or existing buildings, including the type and color of the proposed finish materials. All proposed buildings should have a masonry front (road view) elevation. Renovation to existing buildings will be evaluated on an individual basis. (N/A)
- 23 Please plan to bring samples of the proposed architectural materials to the meeting. (N/A)
- 24 The following statement should appear on all Site Plans:
"As an integral part of this approval, the Planning Board expressly approves the color, textures, and finish of the building as depicted on site elevations or other documents submitted with this application. Any proposed change in color, texture, or finish of the building, from that approved by the Planning Board shall require a re-application for review and approval of the Planning Board." (N/A)
- 25 A separate Lighting Plan will be provided showing the proposed lighting to the nearest candle power, as measured at ground level. See Appendix. (N/A)
- 26 Indicate existing and/or proposed lighting locations, including height, type, and wattage. The Planning Board may require that a Lighting Record Plan certified by a Professional Engineer be supplied. (N/A)
- 27 Show existing and proposed contours based on U.S.C. & G.S. Datum. Reference source of datum and show plan benchmarks. All contours shall be carried a minimum of one hundred (100) feet offsite.
- 28 Show existing drainage system and proposed drainage system. Storm drainage to offsite facilities must be shown on plan and profile to the satisfaction of the Town Engineering Department.
- 29 If the parking lot is to be used for stormwater detention, limits of this area are to be indicated on the site and grading plans.
- 30 Show wetland and buffer zone limits (when applicable).
- 31 Show floodplain and floodway limits (when applicable).
- 32 In plan and profile, show location, size, rim elevations, and all invert elevations of the existing sanitary sewers. Include the nearest manhole on either side of the proposed development.
- 33 In plan and profile, show location of the proposed sanitary sewer systems including sewer systems including proposed laterals (plan only). Include all proposed elevations, grades, pipe



SITE PLAN CHECKLIST

PROJECT NAME: _____

APPLICATION No. _____

sizes, and details of any water crossings. (N/A)

- 34 Show location and size of proposed water services and/or watermains including shutoff valves. N/A
- 35 Show location of fire protection systems components. N/A
- 36 Show location of dumpster (when applicable). All dumpsters must be enclosed in a masonry enclosure on three side with a gate on the fourth and shall be finished to match the proposed or existing structure. The closure should not be visible to the public. N/A
- 37 Indicate a curbed landscape mall with a minimum width of twenty (20) feet as required in commercial lands and industrial lands granted commercial use by special permit. Full depth cast-in-place concrete curb or granite curb must be installed. N/A
- 38 The Site Plan must be prepared from a current Instrument Survey (less than 12 months old). The Instrument Survey shall be certified as having been prepared using the current New York State Association of Professional Land Surveyors (NYSAPLS) Code of Practice and the Genesee Valley Land Surveyors Association - Monroe County Bar Association (GVLSA-MCBA) Standards. Credit the Instrument Survey and supply four copies of the map the Town Engineer.
- 39 If the site contains materials to be buried on site, the Burial Area should be outlined on the Site and Grading Plan. N/A
- 40 Site distance, existing and required, must be shown at driveway locations on all main roads. See Appendix.
- 41 Upon Site Plan Approval, a Letter of Credit shall be furnished to ensure site plan improvements and requirements. See Appendix.
- 42 Required supporting data and/or Reports:
 - a. Environmental Assessment Form (one copy)
(Short Form or Part I Long Form)
 - b. Drainage Report (two copies)
 - c. Traffic Report if required (twelve copies) N/A
 - d. Lighting catalog cuts (copy with each set of plans) N/A
 - e. Architectural Renderings N/A
 - f. Letter of Credit Estimate (one copy). TBD
 - g. Engineering Review Charge and Engineering Site Inspection Charge Form.



SITE PLAN CHECKLIST

PROJECT NAME: Tobin Henrietta Solar

APPLICATION No. _____

See Appendix.

- 43 Thirty (30) sets of folded plans will be required
[Submitting 14 full size sets per J. Miranda and C. Martin]
- 44 Is this project a TYPE I Action? If so, then an additional seven (7) sets of plans will be required for the Coordinated Review process (37 sets of plans total).
[Submitting 14 full size sets per J. Miranda and C. Martin]

Prepared for: Tobin Henrietta Solar LLC
Name of Developer

_____ Date

Sustainable Energy Developments Inc, D.B.A. GreenSpark Solar
Company Name

318 Timothy Lane
Street Address

Ontario, NY 14519
City, State, Zip



SITE PLAN CHECKLIST

PROJECT NAME: Tobin Henrietta Solar

APPLICATION No. _____

Telephone Number

Dwgs
Prepared by: Steven Mellott, PE, CFM
Name of Consultant

10/16/2023
Date

Fisher Associates, P.E., L.S., L.A., D.P.C
Company Name

180 Charlotte St
Street Address

Rochester, NY 14607
City, State, Zip

[REDACTED]
Telephone Number

SITE PLAN CHECKLIST APPENDIX

- 1 Landscape Table
- 2 Sight Distance Table
- 3 Short Environmental Form
- 4 Letter of Credit Summary
- 5 Plan Review Charge and Site Inspection Charge Form Letter
- 6 Engineering Review Charge and Engineering Site Inspection Charge Form
- 7 Sample Lighting Plan

LANDSCAPE TABLE

- 1 The Landscape Table must include identification symbol, quantities, common name, botanical name, caliper for deciduous trees, or heights for evergreen trees, and a remarks column.
- 2 All deciduous trees must be a minimum of 3 inches to 3 1/2 inches in diameter, as measured at caliper (6 inches above ground).
- 3 All ornamental deciduous trees must be a minimum of 2 1/2 inches to 3 inches in diameter, as measured at caliper (6 inches above ground).
- 4 All evergreen trees must be a minimum height of 6 feet to 8 feet, unless otherwise requested, bagged and balled.
- 5 Low shrubs should be a minimum of 24 inches high.
- 6 Along arterial and collector roads, the Planning Board requires the use of salt resistant species.

**Site Plan and Subdivision Application
Engineering Review Charges**

All Site Plan and Subdivision Applications are subject to be reviewed by the Town Engineering Department and/or Consultant Forces. All costs incurred in providing this service are a direct charge to the Applicant or his designee. The responsible person and/or party in this matter shall be identified in the following listing:

Responsible Individual	<u>Kevin Schulte</u>
Responsible Firm	<u>Tobin Henrietta Solar LLC / GreenSpark Solar</u>
Street Address	<u>318 Timothy Lane</u>
City, State, Zip Code	<u>Ontario, NY 14519</u>
Telephone Number	<u>([REDACTED])</u>

Engineering Site Inspection Charges

All Residential and Business Development are subject to be inspected by the Town Engineering Department and/or Consultant Forces. All costs incurred in providing this service are a direct charge to the Applicant or his designee. The responsible person and/or party in this matter shall be identified in the following listing:

Responsible Individual	<u>Kevin Schulte</u>
Responsible Firm	<u>Tobin Henrietta Solar LLC / GreenSpark Solar</u>
Street Address	<u>318 Timothy Lane</u>
City, State, Zip Code	<u>Ontario, NY 14519</u>
Telephone Number	<u>([REDACTED]) 4</u>

Note: When this information has been provided by another party, the following information needs to be provided:

Provided By	_____
Address	_____
City, State Zip	_____
Telephone Number	<u>()</u>

SG125HV

String Inverter for 1500 Vdc System



HIGH YIELD

- Patented five-level topology, max. efficiency 98.9 %, European efficiency 98.7 %, CEC efficiency 98.5 %
- Full power operation without derating at 50 °C
- Patented anti-PID function

SAVED INVESTMENT

- DC 1500V, AC 600V, low system initial investment
- 1 to 5MW power block design for lower AC transformer and labor cost
- Max.DC/AC ratio up to 1.5

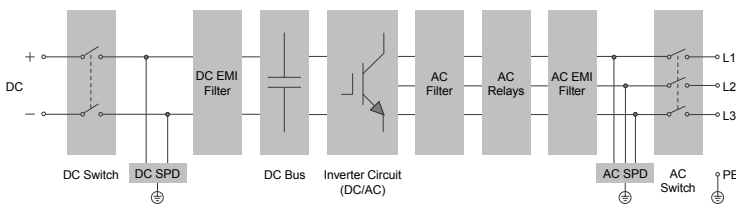
EASY O&M

- Virtual central solution, easy for O&M
- Compact design and light weight for easy installation

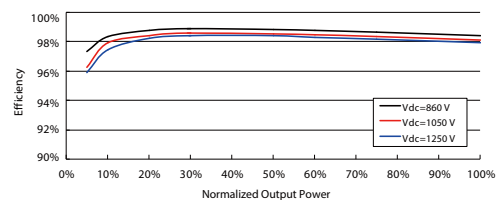
GRID SUPPORT

- Compliance with both IEC and UL safety, EMC and grid support regulations
- Low/High voltage ride through(L/HVRT)
- Active & reactive power control and power ramp rate control

CIRCUIT DIAGRAM



EFFICIENCY CURVE



Type designation	SG125HV
Input (DC)	
Max. PV input voltage	1500 V
Min. PV input voltage / Start-up input voltage	860 V / 920 V
Nominal PV input voltage	1050 V
MPP voltage range	860 – 1450 V
MPP voltage range for nominal power	860 – 1250 V
No. of independent MPP inputs	1
No. of DC inputs	1
Max. PV input current	148 A
Max. DC short-circuit current	250 A
Output (AC)	
AC output power	125 kVA @ 50 °C
Max. AC output current	120 A
Nominal AC voltage	3 / PE, 600 V
AC voltage range	480 – 690 V
Nominal grid frequency / Grid frequency range	50 Hz / 45 – 55 Hz, 60 Hz / 55 – 65 Hz
THD	< 3 % (at nominal power)
DC current injection	< 0.5 % I _n
Power factor at nominal power / Adjustable power factor	> 0.99 / 0.8 leading - 0.8 lagging
Feed-in phases / connection phases	3 / 3
Efficiency	
Max. efficiency / European efficiency	98.9% / 98.7%
CEC efficiency	98.5%
Protection	
DC reverse connection protection	Yes
AC short-circuit protection	Yes
Leakage current protection	Yes
Grid monitoring	Yes
DC switch	Yes
AC switch	Yes
Q at night function	No
Anti-PID function	Yes
Overvoltage protection	DC Type II / AC Type II
General Data	
Dimensions (W*H*D)	670*902*296 mm 26.4"*35.5"*11.7"
Weight	76 kg 167.5 lb
Isolation method	Transformerless
Degree of protection	IP 65 NEMA 4X
Night power consumption	< 4 W
Operating ambient temperature range	-30 to 60 °C (> 50 °C derating) -22 to 140 °F (> 122 °F derating)
Allowable relative humidity range (non-condensing)	0 – 100 %
Cooling method	Smart forced air cooling
Max. operating altitude	4000 m (> 3000 m derating) 13123 ft (> 9843 ft derating)
Display / Communication	LED, Bluetooth+APP / RS485
DC connection type	OT or DT terminal (Max. 185 mm ² 350 Kcmil)
AC connection type	OT or DT terminal (Max. 185 mm ² 350 Kcmil)
Compliance	UL1741, UL1741SA, IEEEE1547, IEEEE1547.1, CSA C22.2 107.1-01-2001, FCC Part15 Sub-part B Class A Limits, California Rule 21, IEC 62109-1/-2, IEC 61000-6-2/-4, IEC 61727, IEC62116, BDEW, EN50549,VDE-AR-N 4110:2018, VDE-AR-N 4120:2018, UNE 206007-1:2013, P.O.12.3, UTE C15-712-1:2013, CEI 0-16:2017, IEC 61683, PEA, NTCO
Grid Support	LVRT, HVRT, ZVRT, active & reactive power regulation, PF control, soft start/stop



Q.PEAK DUO XL-G11 SERIES



570-585 Wp | 156 Cells
21.4% Maximum Module Efficiency

MODEL Q.PEAK DUO XL-G11.3/BFG



Bifacial energy yield gain of up to 20%

Bifacial Q.ANTUM solar cells make efficient use of light shining on the module rear-side for radically improved LCOE.



Low electricity generation costs

Q.ANTUM DUO Z combines cutting edge cell separation and innovative wiring with Q.ANTUM Technology for higher yield per surface area, lower BOS costs, higher power classes, and an efficiency rate of up to 21.4%.



A reliable investment

Double glass module design enables extended lifetime with 12-year product warranty and improved 30-year performance warranty¹.



Enduring high performance

Long-term yield security with Anti LeTID and Anti PID Technology², Hot-Spot Protect.



Frame for versatile mounting options

High-tech aluminum alloy frame protects from damage, enables use of a wide range of mounting structures and is certified regarding IEC for high snow (5400 Pa) and wind loads (2400 Pa).



Innovative all-weather technology

Optimal yields, whatever the weather with excellent low-light and temperature behavior.

¹ See data sheet on rear for further information.

² APT test conditions according to IEC/TS 62804-1:2015 method B (-1500 V, 168 h) including post treatment according to IEC 61215-1:1 Ed. 2.0 (CD)

The ideal solution for:



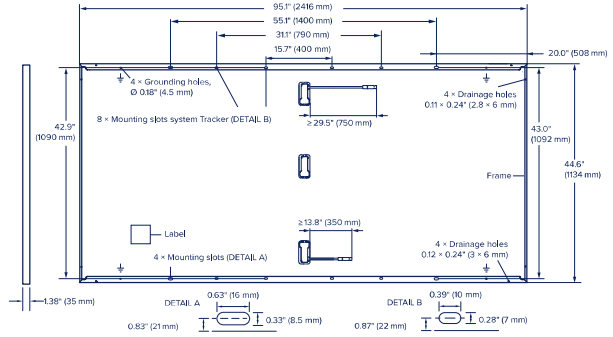
Ground mounted solar panels



Q.PEAK DUO XL-G11 SERIES

Mechanical Specification

Format	95.1in × 44.7in × 1.38in (including frame) (2416mm × 1134mm × 35mm)
Weight	75.8lbs (34.4kg)
Front Cover	0.08 in (2 mm) thermally pre-stressed glass with anti-reflection technology
Back Cover	0.08 in (2 mm) semi-tempered glass
Frame	Anodised aluminium
Cell	6 × 26 monocrystalline Q.ANTUM solar half cells
Junction box	2.09-3.98 × 1.26-2.36 × 0.59-0.71in (53-101mm × 32-60mm × 15-18mm), Protection class IP67, with bypass diodes
Cable	4mm ² Solar cable; (+) ≥ 29.5in (750mm), (-) ≥ 13.8in (350mm)
Connector	Stäubli MC4-Evo2, Hanwha Q CELLS HQC4; IP68



Electrical Characteristics

POWER CLASS	570	575	580	585
-------------	-----	-----	-----	-----

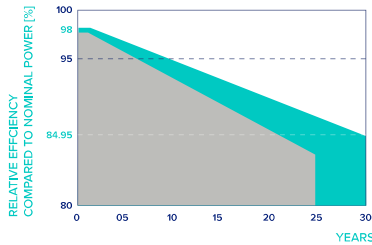
MINIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC ¹ (POWER TOLERANCE +5W/-0W)		BSTC [*]		BSTC [*]		BSTC [*]		BSTC [*]			
Minimum	Power at MPP ¹	P _{MPP}	[W]	570	623.5	575	629.0	580	634.4	585	639.9
	Short Circuit Current ¹	I _{SC}	[A]	13.50	14.77	13.52	14.80	13.55	14.83	13.57	14.86
	Open Circuit Voltage ¹	V _{OC}	[V]	53.50	53.69	53.53	53.72	53.56	53.75	53.59	53.78
	Current at MPP	I _{MPP}	[A]	12.83	14.03	12.87	14.09	12.92	14.14	12.97	14.19
	Voltage at MPP	V _{MPP}	[V]	44.44	44.43	44.66	44.65	44.88	44.87	45.10	45.09
Efficiency ¹	η	[%]	≥ 20.8		≥ 21.0		≥ 21.2		≥ 21.4		

Bifaciality of P_{MPP} and I_{SC} 70% ± 5% • Bifaciality given for rear side irradiation on top of STC (front side) • According to IEC 60904-1-2
¹Measurement tolerances P_{MPP} ± 3%; I_{SC}, V_{OC} ± 5% at STC; 1000 W/m²; *at BSTC: 1000 W/m² + φ × 135 W/m², φ = 70% ± 5%, 25 ± 2 °C, AM 1.5 according to IEC 60904-3

MINIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NMOT ²		P _{MPP}		I _{SC}		V _{OC}		I _{MPP}		V _{MPP}	
Minimum	Power at MPP	P _{MPP}	[W]	429.1	432.9	436.6	440.4				
	Short Circuit Current	I _{SC}	[A]	10.87	10.89	10.91	10.93				
	Open Circuit Voltage	V _{OC}	[V]	50.60	50.63	50.66	50.68				
	Current at MPP	I _{MPP}	[A]	10.09	10.14	10.18	10.22				
	Voltage at MPP	V _{MPP}	[V]	42.51	42.71	42.89	43.08				

²800 W/m², NMOT, spectrum AM 1.5

Qcells PERFORMANCE WARRANTY

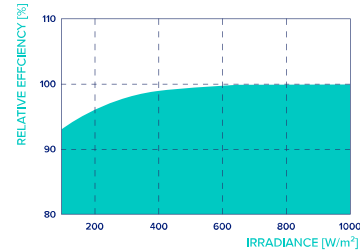


At least 98% of nominal power during first year. Thereafter max. 0.45% degradation per year. At least 93.95% of nominal power up to 10 years. At least 84.95% of nominal power up to 30 years.

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

*Standard terms of guarantee for the 5 PV companies with the highest production capacity in 2021 (February 2021)

PERFORMANCE AT LOW IRRADIANCE



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

TEMPERATURE COEFFICIENTS

Temperature Coefficient of I _{SC}	α	[%/K]	+0.04	Temperature Coefficient of V _{OC}	β	[%/K]	-0.27
Temperature Coefficient of P _{MPP}	γ	[%/K]	-0.34	Nominal Module Operating Temperature	NMOT	[°F]	109 ± 5.4 (43 ± 3 °C)

Properties for System Design

Maximum System Voltage	V _{SYS}	[V]	1500	PV module classification	Class II
Maximum Series Fuse Rating		[A DC]	25	Fire Rating based on ANSI/UL 61730	TYPE 29 ⁴
Max. Design Load, Push/Pull ³		[lbs/ft ²]	75 (3600 Pa)/33 (1600 Pa)	Permitted Module Temperature on Continuous Duty	-40 °F up to +185 °F (-40 °C up to +85 °C)
Max. Test Load, Push/Pull ³		[lbs/ft ²]	113 (5400 Pa)/50 (2400 Pa)		

³ See Installation Manual

⁴ New Type is similar to Type 3 but with metallic frame

Qualifications and Certificates

UL 61730, CE-compliant, IEC 61215:2016, IEC 61730:2016, U.S. Patent No. 9,893,215 (solar cells)



Qcells pursues minimizing paper output in consideration of the global environment.

Note: Installation instructions must be followed. Contact our technical service for further information on approved installation of this product.
 Hanwha Q CELLS America Inc. 400 Spectrum Center Drive, Suite 1400, Irvine, CA 92618, USA | TEL +1 949 748 59 96 | EMAIL hqc-inquiry@qcells.com | WEB www.qcells.com



ENGINEERED SIMPLICITY

99.9%
UPTIME

7%
LOWER LCOE

31%
LOWER LIFETIME O&M

Array DuraTrack®

The most durable, reliable tracking system under the sun. While our single-bolt module clamp and forgiving tolerances streamline installation, and our flexibly linked architecture maximizes power density, it's our innovative use of fewer components and a failure-free wind management system that makes Array Technologies the best choice for solar trackers. **Better. Stronger. Smarter.**



Zero Scheduled Maintenance

Maintenance-free motors and gears, fewer moving parts, and industrial-grade components, means no scheduled maintenance required for our customers. While our competitors average two unscheduled maintenance events per day, we average only one per year.



Failure-free wind management

Nobody can control the weather, but DuraTrack self-manages wind events to power through even the harshest storms.



High Power Density

Higher density means more power and more profit. DuraTrack offers the unique ability to maximize the power density of each site, boasting up to 120 modules per row and higher density than our closest competition.



Fewer Components. Greater Reliability.

Array was founded on a philosophy of engineered simplicity. Minimizing potential failure points. With fewer components than competitors, DuraTrack consistently delivers higher reliability and superior uptime.

COST VERSUS VALUE

Value is more than the cost of a tracking system. It's about building with forgiving tolerance and fewer parts so construction crews can work efficiently. It means protecting your investment with a failure-free wind management system. It also includes increasing power density. But most of all, value is measured in operational uptime, or reliability.

THE GLOBAL LEADER IN RELIABILITY

Maintenance-free motors and gears, fewer moving parts, and industrial-grade components, means no scheduled maintenance required for our customers. While our competitors average two unscheduled maintenance events per day, we average only one per year.

ARRAY TECHNOLOGIES, INC.

3901 Midway Place NE
Albuquerque, NM 87109 USA

+1 505.881.7567
+1 855.TRACKPV (872.2578)
+1.505.881.7572

sales@arraytechinc.com
arraytechinc.com

30+ GW YEARS OF
OPERATION

NEARLY **200x**
FEWER ELECTRICAL COMPONENTS PER
100MWAC THAN DECENTRALIZED TRACKERS

STRUCTURAL & MECHANICAL FEATURES/SPECIFICATIONS

Tracker Type	Horizontal single axis (1 module in portrait)
Ground Cover Ratio (GCR)	Site configurable. Typical: 28-45%
Linked Rows per Drive Motor	Up to 32
Drive Type	Rotating gear drive connected by drivelines (no driveline or bearing lubrication required)
Array Height	Torque Tube Elevation: 54" standard, adjustable (48" min height above grade)
Tracking Range of Motion	+/- 52°
Terrain Flexibility (N-S)	Up to 8.5° standard (up to 15° optional)
Terrain Flexibility (E-W)	Up to 25° combined angle
Wind Protection	Autonomous passive mechanical system No sensors or grid power required to activate
Max Wind Speed	140mph (225 km/h) per ASCE 7-10 (3-second gust), higher wind speeds possible depending on project conditions
Operating Temp Range	Standard: -4°F to 140°F (-20°C to 60°C) Optional: -40°F to 104°F (-40°C to 40°C)
Materials	Pre-galv steel, HDG steel and aluminum structural members, as required.
Codes and Standards	Certified to UL 3703 and IEC 62817

MODULE COMPATIBILITY

c-Si Modules per Row (1500V DC)	Typical: 84-112 Maximum: 120
First Solar Modules per Row (1500V DC)	Series 6 Plus: 84-108 Series 7: 96-114
Modules Supported	Most commercially available, including framed or frameless crystalline, thin film, bifacial, and back rails
Module Attachment	Single fastener, high-speed mounting clamps with integrated grounding. Traditional rails for crystalline in landscape, custom racking for thin film and frameless crystalline and bifacial per manufacturer specs.

CONTROL SYSTEM DETAILS

Baseline Solar Tracking Method	SANDIA's Ephemeris Model
Control Electronics	SmarTrack™ Controller Site Data Controller 6X Motor Controllers
Communications	MODBUS TCP
Backtracking	Yes (Optional terrain adaptive backtracking with SmarTrack)
Diffuse Light Response	Optional with SmarTrack
Night-time Stow	Yes (configurable)
Tracking Accuracy	+/- 2°
Motor Type	2HP, 3 Phase, 480V AC

INSTALLATION, OPERATION, AND MAINTENANCE

Annual Power Consumption (kWh per 1 MW)	Approximately 310 kWh per MW
PE Stamped Structural Calculations & Drawings	Yes
On-site Training and System Commissioning	Yes
Connection	100% bolted connections. No drilling, cutting or welding on-site or in-field fabrication
Scheduled Maintenance	None required
Module Cleaning Compatibility	Robotic, Tractor, Manual
Warranty	10 years structural; 5 years drive and controls components

Three-phase pad-mounted PEAK™ transformer



General

Eaton's Cooper Power™ series PEAK™ transformers represent the next generation of transformer design, and with three distinct product offerings there is a PEAK transformer to fit your needs. The first PEAK transformer option is a 75 °C average winding rise (AWR) design that offers users a potentially smaller and lighter footprint than today's 65 °C AWR transformers. This design is ideal for applications with cost, weight, or dimensional constraints. The second PEAK transformer option is a 65/75 °C AWR design that offers users sustained overload capacity while maintaining IEEE Std C57.91™-2011 standard per unit life requirements. This design offers customers flexibility in transformer sizing by offering the ability to accommodate future load growth without oversizing relative to current load, or the ability to meet periods of peak demand without oversizing based on continuous load. The third PEAK transformer option is a 55/75 °C AWR design that provides up to 22% additional loading capacity when compared to traditional mineral oil-filled transformers.

With all PEAK product offerings utilizing thermally upgraded kraft paper and Envirotemp™ FR3™ dielectric fluid, PEAK transformers offer customers a solution that is fully compatible with the new IEEE® standard for transformers using high-temperature insulation systems, IEEE Std C57.154™-2012 standard. In addition, all PEAK transformers provide the high fire point and environmental benefits of Envirotemp™ FR3™ fluid. PEAK transformers are available in various designs and configurations to match almost every application.

EATON

Powering Business Worldwide

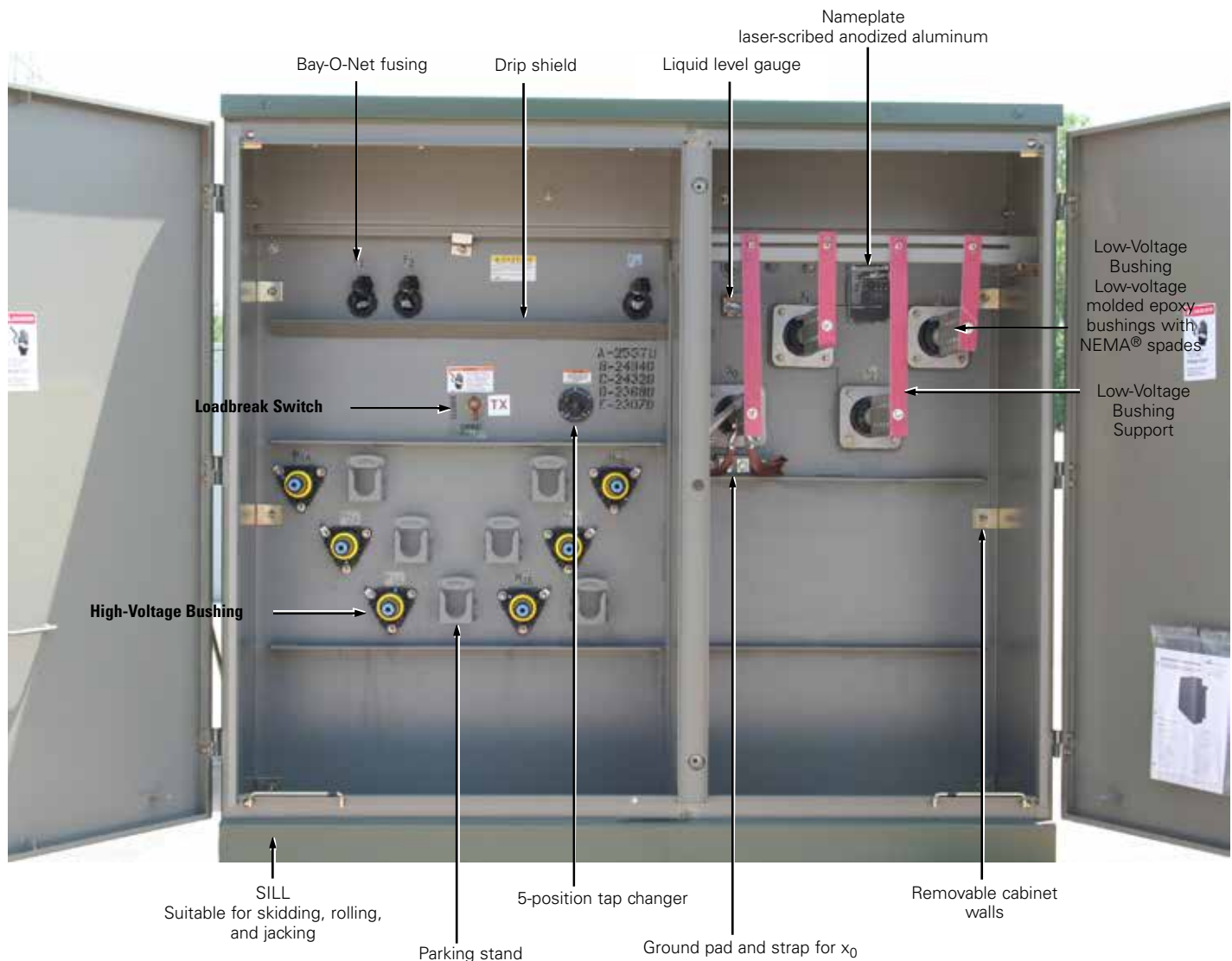


Figure 1. Three-phase pad-mounted PEAK transformer.

Table 1. Product scope

Type	Three-Phase, 50 or 60 Hz, 75 °C Rise and 65 °C/75 °C and 55/75 °C
Fluid Type	Only Envirotemp™ FR3™ fluid
Coil Configuration	2-winding or 4-winding or 3-winding (Low-High-Low), 3-winding (Low-Low-High)
Size	45 – 10,000 kVA
Primary Voltage	2,400 – 46,000 V
Secondary Voltage	208Y/120 V to 14,400 V
Specialty Designs	Inverter/Rectifier Bridge
	K-Factor (up to K-19)
	Solar/Wind Designs
	Differential Protection
	Seismic Applications (including OSHPD)
	Hardened Data Center
	UL® Listed & Label and Classified

Table 2. Three-Phase Ratings

Three-Phase 50 or 60 Hz

kVA Available¹:
45, 75, 112.5, 150, 225, 300, 500, 750, 1000, 1500, 2000, 2500, 3000, 3750, 5000, 7500, 10000

¹Transformers are available in the standard ratings and configurations shown or can be customized to meet specific needs.

Table 3. Impedance Voltage

Rating (kVA)	Low-voltage rating		
	≤ 600 V	2400 Δ through 4800 Δ	6900 Δ through 13800GY/7970 or 13800 Δ
45-75	2.70-5.75	2.70-5.75	2.70-5.75
112.5-300	3.10-5.75	3.10-5.75	3.10-5.75
500	4.35-5.75	4.35-5.75	4.35-5.75
750-2500	5.75	5.75	5.75
3750	5.75	5.75	6.00
5000		6.00	6.50

Note: The standard tolerance is ± 7.5%

Table 4. Audible Sound Levels

Self-Cooled, Two Winding kVA Rating	NEMA® TR-1 Average
	Decibels (dB)
45-500	56
501-700	57
701-1000	58
1001-1500	60
1501-2000	61
2001-2500	62
2501-3000	63
3001-4000	64
4001-5000	65
5001-6000	66
6001-7500	67
7501-10000	68

Table 5. Insulation Test Levels

KV Class	Induced Test 180 or 400 Hz 7200 Cycle	kV BIL Distribution	Applied Test 60 Hz (kV)
1.2	Twice Rated Voltage	30	10
2.5		45	15
5		60	19
8.7		75	26
15		95	34
25		125	40
34.5		150	50

Table 6. Temperature Rise Ratings 0-3300 Feet (0-1000 meters)

	Unit Rating (Temperature Rise Winding)
	75, 65/75, 55/75 °C
Ambient Temperature Max.	40 °C
Ambient Temperature 24 Hour Average	30 °C
Temperature Rise Hotspot	90 °C

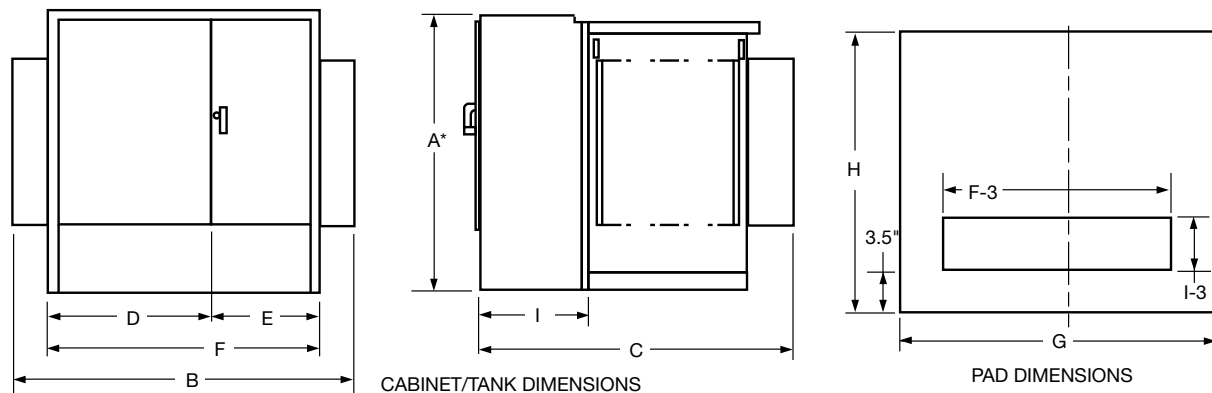


Figure 2. Transformer and pad dimensions.

* Add 9" for Bay-O-Net fusing.

Table 7. Fluid-Filled—Aluminum Windings 65 °C Rise¹

kVA	A	B	C	D	E	F	G	H	I	GALLONS	WEIGHT
45	50	66	40	41	25	66	70	44	20	102	1990
75	50	66	40	41	25	66	70	44	20	102	1990
112.5	50	66	40	41	25	66	70	44	20	108	2150
150	50	66	41	41	25	66	70	45	20	115	2330
225	50	71	50	41	30	71	75	54	20	127	2810
300	50	71	50	41	30	71	75	54	20	136	3200
500	50	79	52	41	30	71	83	56	20	170	4200
750	64	82	56	41	30	71	86	60	20	242	5390
1000	64	82	59	41	30	71	86	63	20	305	7120
1500	64	76	90	42	29	71	80	94	24	356	9980
2000	72	76	90	42	29	71	80	94	24	520	11079
2500	72	79	97	42	29	71	83	101	24	550	13340
3000	84	88	98	49	29	78	92	102	24	625	14820
3750	84	88	103	49	29	78	92	107	24	671	17640
5000	84	99	108	50	30	80	103	112	24	910	21750
7500	94	100	108	48	48	96	104	112	24	1017	25100
10000	94	100	120	48	48	96	104	124	24	1500	38900

¹ Weights, gallons of fluid, and dimensions are for reference only and not for construction. Please contact an Eaton representative for exact dimensions.

* Add 9" for Bay-O-Net fusing.

Table 8. Fluid-Filled—Aluminum Windings 75 °C Rise¹

kVA	A	B	C	D	E	F	G	H	I	GALLONS	WEIGHT
45	50	66	40	41	25	66	70	44	20	102	1990
75	50	66	40	41	25	66	70	44	20	102	1990
112.5	50	66	40	41	25	66	70	44	20	104	2150
150	50	66	40	41	25	66	70	44	20	106	2310
225	50	70	40	41	29	70	74	44	20	120	2710
300	50	70	50	41	29	70	74	54	20	132	3160
500	50	70	53	41	29	70	74	57	20	168	4090
750	64	70	57	41	29	70	74	61	20	237	5300
1000	64	70	58	41	29	70	74	62	20	284	6650
1500	64	71	64	42	29	71	75	68	24	347	9840
2000	64	71	68	42	29	71	75	72	24	393	10790
2500	64	71	91	42	29	71	75	95	24	406	13300
3000	72	71	108	42	29	71	75	112	24	559	14560
3750	72	78	102	46	32	78	82	106	24	634	17440
5000	84	85	112	47	38	85	89	116	24	755	20645
7500	84	88	120	48	40	88	92	124	24	890	23060
10000	84	88	130	48	40	88	92	134	24	990	27300

¹ Weights, gallons of fluid, and dimensions are for reference only and not for construction. Please contact an Eaton representative for exact dimensions.

* Add 9" for Bay-O-Net fusing.

Standard features

Connections and neutral configurations

- Delta-Wye: Low voltage neutral shall be a fully insulated X0 bushing with removable ground strap.
- Grounded Wye-Wye: High voltage neutral shall be internally tied to the low voltage neutral and brought out as the HOX0 bushing in the secondary compartment with a removable ground strap.
- Delta-Delta: Transformer shall be provided without a neutral bushing.
- Wye-Wye: High voltage neutral shall be brought out as the H0 bushing in the primary compartment and the low voltage neutral shall be brought as the X0 bushing in the secondary compartment.
- Wye-Delta: High voltage neutral shall be brought out as the H0 bushing in the primary compartment. No ground strap shall be provided (line to line rated fusing is required).

High and low voltage bushings

- 200 A bushing wells (15, 25, 35 kV)
- 200 A, 35 kV large Interface
- 600 A (15, 25, 35 kV) integral bushings (dead-front)
- Electrical-grade wet-process porcelain bushings (live-front)

Tank/cabinet features

- Bolted cover for tank access (45-2500 kVA)
- Welded cover with hand hole (>2500 kVA)
- Three-point latching door for security
- Removable sill for easy installation
- Lifting lugs (4)
- Stainless steel cabinet hinges and mounting studs
- Steel divider between HV and LV compartment
- 20" deep cabinet (45-1000 kVA)
- 24" deep cabinet (1500-7500 kVA)
- 30" deep cabinet (34.5/19.92 kV)
- Pentahead captive bolt
- Stainless steel 1-hole ground pads (45-500 kVA)
- Stainless steel 2-hole ground pads (750-10,000 kVA)
- Parking stands (dead-front)

Valves/plugs

- One-inch upper filling plug
- One-inch drain plug (45-500 kVA)
- One-inch combination drain valve with sampling device in low voltage compartment (750-10,000 kVA)
- Automatic pressure relief valve

Nameplate

- Laser-scribed anodized aluminum nameplate



Figure 3. Drain valve with sampler.



Figure 4. Automatic pressure relief valve.



Figure 5. Liquid level gauge.



Figure 6. External Gauges.



Figure 7. External visible break with gauges.

Optional features

High and low voltage bushings

- 200 A (15, 25 kV) bushing inserts
- 200 A (15, 25 kV) feed thru inserts
- 200 A (15, 25 kV) (HTN) bushing wells with removable studs
- High-voltage 600 A (15, 25, 35 kV) deadbreak one-piece bushings
- Low-voltage 6-, 8-holes spade
- Low-voltage 12-, 16-, 20-holes spade (750-2500 kVA)
- Low-voltage bushing supports

Tank/cabinet features

- Stainless steel tank base and cabinet
- Stainless steel tank base, cabinet sides and sill
- 100% stainless steel unit
- Service entrance (2 inch) in sill or cabinet side
- Touch-up paint (domestic)
- Copper ground bus bar
- Kirk-Key provisions
- Nitrogen blanket
- Bus duct cutout

Special designs

- Triplex core
- High Altitude
- K-Factors
- Step-up
- Critical application
- Modulation transformers
- Seismic applications (including California Office of Statewide Health Planning and Development, OSHPD)

Switches

- 100 A, 150 A, 300 A tap-changers
- Dual-voltage switch
- One, two, or three On/Off loadbreak switches
- 4-position loadbreak V-blade switch or T-blade switch
- Delta-wye switch
- 3-position V-blade selector switch
- External visible break (15, 25, and 35 kV, up to 3 MVA)
- External visible break with gauges (15, 25, and 35 kV, up to 3 MVA)

Gauges and devices

- Liquid level gauge (optional contacts)
- Pressure vacuum gauge (optional contacts and bleeder)
- Dial-type thermometer (optional alarm contacts)
- Cover-mounted pressure relief device (optional alarm contacts)
- Ground connectors
- Hexhead captive bolt
- Molded case circuit breaker mounting provisions
- External gauges in padlockable box

Overcurrent protection

- Bay-O-Net fusing in series with a partial-range under-oil ELSP current-limiting fuse
- MagneX™ interrupter with ELSP current-limiting fuse
- Fuse/switch interlock

Valves/plugs

- Drain/sampling valve in high-voltage compartment
- Globe-type upper fill valve

Overvoltage protection

- Distribution-, intermediate-, or station-class surge arresters
- Elbow arresters (for dead-front connections)

Metering/fan/control

- Full metering package
- Metering socket
- NEMA® 4 control box (optional stainless steel)
- NEMA® 7 control box (explosion proof)
- Fan packages

Testing

- Customer test witness
- Customer final inspection
- Zero sequence impedance test
- Heat Run Test
- ANSI® Impulse Test
- Audible Sound Level Test
- RIV (Corona) Test
- Dissolved Gas Analysis (DGA) Test
- 8- or 24-Hour Leak Test

Coatings (Paint)

- ANSI® bell green
- ANSI® #61 light gray
- ANSI® #70 sky gray
- Special paint (available per request)

Nameplate

- Stainless steel nameplate

Decals and labels

- High-voltage warning signs
- Mr. Ouch decal
- Bi-lingual warning
- DOE compliant
- Customer stock code
- Customer stenciling
- Shock and arc flash warning decal
- Non-PCB decal

Construction

Core

The three-legged, step-lap mitered core construction is manufactured using a high-quality cutting machine. For maximum efficiency, cores are precisely stacked, virtually eliminating gaps in the corner joints.

Five-legged wound core or shell-type triplex designs are used for wye-wye connected transformers, and other special transformer designs.

Cores are manufactured with precision cut, burr-free, grain-oriented silicon steel. Many grades of core steel are available for optimizing core loss efficiency.

Coils

Pad-mounted transformers feature a rectangular coil configuration with wire-wound, high-voltage primaries and sheet-wound secondaries. The design minimizes axial stress developed by short circuits and provides for magnetic balancing of tap connections.

Coils are wound using the highest quality winding machines providing exacting tension control and conductor placement for superior short-circuit strength and maximum efficiency.

Extra mechanical strength is provided by diamond pattern, epoxy-coated paper insulation, used throughout the coil, with additional epoxy at heavy stress points. The diamond pattern distribution of the epoxy and carefully arranged ducts, provide a network of passages through which cooling fluid can freely circulate.

Coil assemblies are heat-cured under calculated hydraulic pressure to ensure performance against short-circuit forces.

Core and coil assemblies

Pad-mounted transformer core and coil assemblies are braced with heavy steel ends to prevent the rectangular coil from distorting under short-circuit conditions. Plates are clamped in place using presses, and welded or bolted to form a solid core and coil assembly. Core and coil assemblies exceed ANSI® and IEEE® requirements for short-circuit performance. Due to the rigidity of the design, impedance shift after short-circuit is comparable to that of circular wound assemblies.

Tanks

Transformer tanks are designed for high strength and ease of handling, installation, and maintenance. Tanks are welded using precision-cut, hot rolled, pickled and oiled steel. They are sealed to protect the insulating fluid and other internal components.

Transformer tanks are pressure-tested to withstand 7 psig without permanent distortion and 15 psig without rupture.

Tank finish

An advanced multi-stage finishing process exceeds the IEEE Std C57.12.28™-2014 standard. The eight-stage pre-treatment process assures coating adhesion and retards corrosion. It converts tank surfaces to a nonmetallic, water insoluble iron phosphate coating.

The paint method consists of two distinct layers of paint. The first is an epoxy primer (E-coat) layer which provides a barrier against moisture, salt and corrosives. The two-component urethane final coat seals and adds ultraviolet protection.

Vacuum processing

Transformers are dried and filled with filtered insulating fluid under vacuum, while secondary windings are energized. Coils are heated to drive out moisture, ensuring maximum penetration of fluid into the coil insulation system.

Insulating fluid

Eaton's Cooper Power series transformers are available with Envirotemp™ FR3™ fluid. The highly refined fluids are tested and degassed to assure a chemically inert product with minimal acid ions. Special additives minimize oxygen absorption and inhibit oxidation. To ensure high dielectric strength, the fluid is re-tested for dryness and dielectric strength, re-filtered, heated, dried, and stored under vacuum before being added to the completed transformer.

Eaton's Cooper Power series transformers filled with Envirotemp™ FR3™ fluid enjoy unique fire safety, environmental, electrical, and chemical advantages, including insulation life extending properties.

A bio-based, sustainable, natural ester dielectric coolant, Envirotemp™ FR3™ fluid quickly and thoroughly biodegrades in the environment and is non-toxic per acute aquatic and oral toxicity tests.

Building for Environmental and Economic Sustainability (BEES) total life cycle assessment software, utilized by the US Dept. of Commerce, reports its overall environmental performance impact score at 1/4th that reported for mineral oil. Envirotemp™ FR3™ fluid has also earned the EPA Environmental Technology Verification of transformer materials.

With a fire point of 360 °C, Envirotemp™ FR3™ fluid is FM Approved® and Underwriters Laboratories (UL®) Classified "Less-Flammable" per NEC® Article 450-23, fitting the definition of a Listed Product per NEC®.



Special application transformers

Data center transformer

With focus rapidly shifting from simply maximizing uptime and supporting demand to improving energy utilization, the data center industry is continually looking for methods to increase its energy efficiency and reliability. Utilizing cutting edge technology, Eaton's Cooper Power series Envirotran™ Hardened Data Center (HDC) transformers are the solution. Designed with special attention given to surge protection, HDC liquid-filled transformers provide superior performance under the harshest electrical environments. Contrary to traditional dry-type units, HDC transformers provide unsurpassed reliability, overloadability, operational life, efficiency, thermal loading and installed footprint. These units have reliably served more than 100 MW of critical data center capacity for a total of more than 6,000,000 hours without an hour of downtime caused by a thermal or short-circuit coil failure.

The top priority in data center operations is uninterrupted service. Envirotran HDC transformers, having substantially higher levels of insulation, are less susceptible to voltage surges. Eaton has experienced zero failures due to switching transients. The ANSI® and IEEE® standard impulse withstand ratings are higher for liquid-filled transformers, making them less susceptible to insulation failure. The Envirotran HDC transformer provides ultimate protection by increasing the BIL rating one level higher than standard liquid-filled transformer ratings. The cooling system of liquid-filled transformers provides better protection from severe overloads—overloads that can lead to significant loss of life or failure.

Data center design typically includes multiple layers of redundancy, ensuring maximum uptime for the critical IT load. When best in class transformer manufacturing lead times are typically weeks, not days, an unexpected transformer failure will adversely affect the facility's reliability and profitability. Therefore, the ability to determine the electrical and mechanical health of a transformer can reduce the probability of costly, unplanned downtime. Routine diagnostic tests, including key fluid properties and dissolved gas analysis (DGA), can help determine the health of a liquid-filled transformer. Although sampling is not required for safe operation, it will provide the user with valuable information, leading to scheduled repair or replacement, and minimizing the duration and expense of an outage. With a dry-type transformer, there is no reliable way to measure the health or likelihood of an impending failure.

Solar transformer

As a result of the increasing number of states that are adopting aggressive Renewable & Alternative Energy Portfolio Standards, the solar energy market is growing—nearly doubling year over year. Eaton, a key innovator and supplier in this expanding market, is proud to offer Envirotran™ transformers specifically designed for Solar Photovoltaic medium-voltage applications. Eaton is working with top solar photovoltaic developers, integrators and inverter manufacturers to evolve the industry and change the way we distribute power.

In accordance with this progressive stance, every Eaton's Envirotran Solar transformer is filled with non-toxic, biodegradable Envirotemp™ FR3™ dielectric fluid, made from renewable seed oils. On top of its biodegradability, Envirotemp™ FR3™ fluid substantially extends the life of the transformer insulation, saving valuable resources. What better way to distribute green power than to use a green transformer. In fact, delaying conversion to Envirotran transformers places the burden of today's environmental issues onto tomorrow's generations. Eaton can help you create a customized transformer, based on site specific characteristics including: temperature profile, site altitude, solar profile and required system life. Some of the benefits gained from this custom rating include:

- Reduction in core losses
- Improved payback on investment
- Reduction in footprint
- Improved fire safety
- Reduced environmental impact

For the solar photovoltaic industry, Eaton offers standard step up transformers and dual secondary designs, including 4-winding, 3-winding (Low-High-Low) and 3-winding (Low-Low-High) designs.

Wind transformer

Eaton offers custom designs for renewable energy power generation. Eaton manufactures Cooper Power series Generator Step-Up (GSU) transformers for installation at the base of every wind turbine. Additionally, grounding transformers are available for wind power generation.

DOE efficiency

The United States Department of Energy (DOE) has mandated efficiency values for most liquid type, medium voltage transformers. As a result, all applicable Eaton's Cooper Power series transformers 2500 kVA and below conform to efficiency levels as specified in the DOE ruling "10 CFR Part 431 Energy Conservation Program".

K-Factor transformer

With a drastic increase in the use of ferromagnetic devices, arcing devices, and electric power converters, higher frequency loads have increased significantly. This harmonic loading has the potential to generate higher heat levels within a transformer's windings and leads by as much as 300%. Harmonic loading has the potential to induce premature failure in standard-design distribution transformers.

In addition to standard UL® "K-Factor" ratings, transformers can be designed to customer-provided specifications detailing precise loading scenarios. Onsite measurements of magnitude and frequency, alongside harmonic analysis of the connected load can be performed by Eaton engineers or a third party consultant. These field measurements are used to determine exact customer needs and outline the transformer specifications.

Eaton will design harmonic-resistant transformers that will be subjected to the unique harmonic loads. These units are designed to maintain normal temperature rise under harmonic, full-load conditions. Standard UL® "K-Factor" designs can result in unnecessary costs when the "next-highest" K-Factor must be selected for a calculated design factor. To save the customer these unnecessary costs, Eaton can design the transformer to the specific harmonic spectrum used in the application. K-factor transformers from Eaton are filled with mineral oil or Envirotemp™ FR3™ fluid and enjoy the added benefits of dielectric cooling such as higher efficiencies than dry-type transformers.

Modulation transformer

Bundled with an Outboard Modulation Unit (OMU) and a Control and Receiving Unit (CRU), a Modulation Transformer Unit (MTU) is designed to remotely achieve two way communication.

The use of an MTU reduces travel time and expense versus traditional meter reading performed by high voltage electricians. Additionally, with MTU it is possible to manage and evaluate energy consumption data, providing reduced metering costs and fewer tenant complaints.

An MTU utilizes existing utility infrastructure, therefore eliminating the need to engineer and construct a dedicated communication network.



Figure 8. Modular transformer.

Inverter/rectifier bridge

Eaton complements its range of applications for transformers by offering dual winding designs. These designs are intended for connection to 12-pulse rectifier bridges.

Product attributes

To set us apart from other transformer manufactures, Eaton includes the following guarantees with every three-phase pad-mounted transformer.

Engineered to order (ETO)

Providing the customer with a well developed, cost-effective solution is the number one priority at Eaton. Using customer specifications, Eaton works with the customer from the beginning to the end to develop a solution to fit their needs. Whether it is application specific, site specific, or a uniquely specified unit, Eaton provides transformers with the best in class value and performance, saving the customer time and money.

Made in the U.S.A.

Eaton manufactures three-phase pad-mounted transformers right here in the United States of America. Our manufacturing facilities are positioned strategically for rapid shipment of products. Furthermore, should the need arise, Eaton has a broad network of authorized service repair shops throughout the United States.

Superior paint performance

Protecting transformers from nature's elements worldwide, Eaton's E-coat system provides unrivaled transformer paint life, and exceeds IEEE Std C57.12.28™-2014 and IEEE C57.12.29™-2005 standards. In addition to the outside of the unit, each transformer receives a gray E-coat covering in the interior of the tank and cabinet, providing superior rust resistance and greater visibility during service.

If the wide range of standard paint selections does not suit the customer's needs, Eaton will customize the paint color to meet their requirements.

Rectangular coil design

Eaton utilizes a rectangular coil design. This winding technique results in a smaller overall unit footprint as well as reducing the transformer weight. The smaller unit size does not hinder the transformer performance in the least. Units have proven short circuit withstand capabilities up to 10 MVA.

Testing

Eaton performs routing testing on each transformer manufactured including the following tests:

- **Insulation Power Factor:** This test verifies that vacuum processing has thoroughly dried the insulation system to required limits.
- **Ratio, Polarity, and Phase Relation:** Assures correct winding ratios and tap voltages; checks insulation of HV and LV circuits. Checks entire insulation system to verify all live-to-ground clearances.
- **Resistance:** This test verifies the integrity of internal high-voltage and low-voltage connections; provides data for loss upgrade calculations.
- **Routine Impulse Tests:** The most severe test, simulating a lightning surge. Applies one reduced wave and one full wave to verify the BIL rating.
- **Applied Potential:** Applied to both high-voltage and low-voltage windings, this test stresses the entire insulation system to verify all live-to-ground clearances.
- **Induced Potential:** 3.46 times normal plus 1000 volts for reduced neutral designs.
- **Loss Test:** These design verification tests are conducted to assure that guaranteed loss values are met and that test values are within design tolerances. Tests include no-load loss and excitation current along with impedance voltage and load loss.
- **Leak Test:** Pressurizing the tank to 7 psig assures a complete seal, with no weld or gasket leaks, to eliminate the possibility of moisture infiltration or fluid oxidation.

Design performance tests

The design performance tests include the following:

- **Temperature Rise:** Our automated heat run facility ensures that any design changes meet ANSI® and IEEE® temperature rise criteria.
- **Audible Sound Level:** Ensures compliance with NEMA® requirements.
- **Lightning Impulse:** To assure superior dielectric performance, this test consists of one reduced wave, two chopped waves and one full wave in sequence, precisely simulating the harshest conditions.

Thomas A Edison Research and Test Facility

We are constantly striving to introduce new innovations to the transformer industry, bringing you the highest quality transformer for the lowest cost. Eaton's Cooper Power series Transformer Products are ISO 9001 compliant, emphasizing process improvement in all phases of design, manufacture, and testing. We have invested millions of dollars in the Thomas A. Edison Technical Center, our premier research facility in Franksville, Wisconsin affirming our dedication to introducing new innovations and technologies to the transformer industry. This research facility is fully available for use by our customers to utilize our advanced electrical and chemical testing labs.

Eaton
1000 Eaton Boulevard
Cleveland, OH 44122
United States
Eaton.com

Eaton's Cooper Power Systems Division
2300 Badger Drive
Waukesha, WI 53188
United States
Eaton.com/cooperpowerseries

© 2015 Eaton
All Rights Reserved
Printed in USA
Publication No. CA202002EN

Eaton, Cooper Power, PEAK, MagneX, and Envirotran are valuable trademarks of Eaton in the U.S. and other countries. You are not permitted to use these trademarks without the prior written consent of Eaton.

IEEE Std C57.12.28™-2014, IEEE Std C57.12.29™-2005, IEEE Std C57.91™-2011, and IEEE Std C57.154™-2012 standards are trademarks of the Institute of Electrical and Electronics Engineers, Inc., (IEEE). This publication is not endorsed or approved by the IEEE.

IEEE® is a registered trademark of the Institute of Electrical and Electronics Engineers, Inc. ANSI® is a registered trademark of American National Standards Institute. National Electrical Code® and NEC® are registered trademarks of the National Fire Protection Association, Inc., Quincy, MA. NEMA® is a registered trademark of the National Electrical Manufacturers Association. Envirotemp™ and FR3™ are licensed trademarks of Cargill, Incorporated.

For Eaton's Cooper Power series PEAK transformer product information call 1-877-277-4636 or visit: www.eaton.com/cooperpowerseries.



**New York State
Parks, Recreation and
Historic Preservation**

KATHY HOCHUL
Governor

ERIK KULLESEID
Commissioner

October 11, 2023

Mia Morgillo
318 Timothy Ln
Ontario, NY 14519

Re: SEQRA
Tobin Henrietta Solar Project/3 MW/14.1 Acres
55 Tobin Rd, Henrietta, NY 14467
23PR08512

Dear Mia Morgillo:

Thank you for requesting the comments of the Office of Parks, Recreation and Historic Preservation (OPRHP). We have reviewed the project in accordance with the New York State Historic Preservation Act of 1980 (Section 14.09 of the New York Parks, Recreation and Historic Preservation Law). These comments are those of the OPRHP and relate only to Historic/Cultural resources. They do not include potential environmental impacts to New York State Parkland that may be involved in or near your project. Such impacts must be considered as part of the environmental review of the project pursuant to the State Environmental Quality Review Act (New York Environmental Conservation Law Article 8) and its implementing regulations (6 NYCRR Part 617).

Based upon this review, it is the opinion of OPRHP that no properties, including archaeological and/or historic resources, listed in or eligible for the New York State and National Registers of Historic Places will be impacted by this project.

If further correspondence is required regarding this project, please be sure to refer to the OPRHP Project Review (PR) number noted above.

Sincerely,

R. Daniel Mackay

Deputy Commissioner for Historic Preservation
Division for Historic Preservation

rev: S. Snyder

10/16/2023

Town of Henrietta
475 Calkins Road
Rochester, NY 14623

To Whom It May Concern,

Please allow this letter to authorize Fisher Associates, P.E., L.S., L.A., D.P.C., to discuss and represent Tobin Henrietta Solar LLC/Sustainable Energy Developments, Inc. DBA GreenSpark Solar, with regards to the Tobin Henrietta Solar Project. They have my authorization to interact with the Town Board and the Planning Board on my behalf regarding the materials submitted in support of our Special Use Permit and Site Plan Review applications.

Kind Regards,

Kevin Schulte
CEO, GreenSpark Solar



Loyal to People. Loyal to Planet.

[greensparksolar.com](https://www.greensparksolar.com) | 585 265 2384

October 3, 2023

Steve Schultz, Town of Henrietta Supervisor
Town of Henrietta Town Board
475 Calkins Road
Rochester, NY 14623

Dear Mr. Schultz and Members of the Town Board,

We, the landowners of Tax Parcel 190.02-1-48.21, are writing to confirm that we authorize Tobin Henrietta Solar LLC, a subsidiary of GreenSpark Solar, to pursue all permits required by the town of Henrietta in order to complete the Tobin Henrietta Solar Project proposed to be located at 55 Tobin Road Henrietta, New York 14467.

We certify that we are the owners of the property for which the permits are requested (Tax Parcel 190.02-1-48.21).

As of 9/6/22, we have entered into a letter of intent agreement with GreenSpark Solar detailing our intent to enter into a Land Lease Agreement for the installation of a Photovoltaic generating system. Please find it attached to this letter.

We look forward to working with Tobin Henrietta Solar LLC, GreenSpark Solar and the Town of Henrietta in support of this project.

Sincerely,
Mark and Linda Heintz



LETTER OF INTENT FOR LAND LEASE AGREEMENT

This **LETTER OF INTENT** ("Letter") is entered into between **Mark and Linda Heintz** ("Land Owner") with property located at 55 Tobin Road (Parcel # 190.02-1-48.21) in the Town of Henrietta, and **Sustainable Energy Developments, Inc., d/b/a GreenSpark Solar** ("Tenant") located at 318 Timothy Road, Ontario, NY, referred to collectively as the "Parties".

The Letter sets forth the Parties' desires and intentions to negotiate a Land Lease Agreement (the "Agreement") for the installation a Photovoltaic (PV) generating system (the "System") on the Land Owner's Premises (as defined below) and their intention to negotiate the Agreement in good faith commencing with the full execution of this letter.

1. **Premises.** Tenant desires to lease land from Land Owner land that is fully described in Exhibit 'A' attached hereto ('the Premises'). Land Owner acknowledges and agrees that the exact size, shape and location of the property that will comprise the Premises has not been determined, and any maps or depictions which Tenant has shown or will show including are approximations only and subject to mutually agreed upon change.

2. **Term.** The Term of the Agreement (the "Term") shall be Twenty-five years commencing on the date on which the project begins substantial construction (the "Term Commencement Date"). At the end of the Term, the Tenant will have an Option to extend the term pursuant to the Parties reaching mutually agreeable terms in writing.

3. **A. Rent.** The "Rent Commencement Date" shall begin on the Term Commencement Date as defined above. Within 30 days of the Rent Commencement Date, Tenant shall pay the Owner an initial rent payment of \$1,000-\$1,500 per acre per year for the first year's rent. The exact rent payment and acreage to be leased to be determined as stated above. Tenant shall then pay Owner "Annual Rent" each year beginning on the Rent Commencement date anniversary, escalating at 1% per annum.

B. Taxes. Tenant will negotiate with the taxing authorities for a Payment in Lieu of Taxes ("PILOT") agreement, which covers taxation of the solar equipment installed onsite. Any changes to the underlying property taxes on the land itself, such as a loss of an agricultural exemption, are considered the Land Owner's responsibility.

4. **Purpose.** As part of the Agreement, Tenant shall be granted the right to use the Premises for the purpose of construction, installing, removing, replacing, reconstructing, maintaining and operating a solar array project including solar panels, equipment, equipment shelters and buildings, electronics equipment generators and other equipment improvements. Further rights and responsibilities of the Parties shall be defined in the Agreement.

5. **Entry.** Land Owner consents and agrees that Tenant, its employees, agents and independent contractors ("Authorized Parties") may enter upon the Property to conduct and perform some or all of the following activities ("Permitted Activities"): surveys, Phase I environmental audits, and boundary surveys.. Tenant agrees to be responsible for any and all costs related to the Permitted Activities, including installation on and operation and removal of equipment on the Property, repair and restoration of any damage to the Premises caused by the Permitted Activities, and indemnification against any claims arising by reason of the Permitted activities, including attorney fees expended in connection therewith.

6. **Filings.** Land Owner consents and agrees that the Authorized Parties may make and file applications on Land Owner's behalf to such local, state and federal governmental entities whose approval Tenant may consider necessary or advisable to have the Property approved as a photovoltaic generating system, including, but not limited to, governmental approvals for zoning variances, rezoning applications, building permits and wetland permits. Land Owner hereby agrees that a copy of this Agreement is as effective as the original. However, if requested by the Authorized Parties, Land Owner agrees to execute such other and further documents as may be required by the governmental entity in question to evidence Land Owner's consent to the action which is proposed to be taken.

7. **Confidentiality.** Each Party shall treat as confidential and proprietary all information and data delivered to it by the other Party ("Confidential Information"). Confidential Information shall not be disclosed to any third party, other than to either Party's subcontractors or sub consultants under similar nondisclosure agreements, during or subsequent to the term of this Agreement. Nothing contained herein shall preclude either Party from disclosing information or data: (i) in the public domain without breach of this Agreement; (ii) developed independently by either Party; or (iii) where disclosure or submission to any governmental authority is required by applicable statutes, ordinances, codes, regulations, consent decrees, orders, judgments, rules, and all other requirements

of any and all governmental or judicial entities that have jurisdiction, but only after written notice has been received by the receiving Party.

8. **Governing Law, Integration, Amendments.** This Letter shall be governed by the substantive laws of the State of New York without regard to conflict of law principles. This Letter constitutes the entire understanding and agreement between the Parties hereto and their affiliates with respect to its subject matter and supersedes all prior or contemporaneous agreements, representations, warranties and understandings of such Parties (whether oral or written). No promise, inducement, representation or agreement, other than as expressly set forth herein, has been made to or by the Parties hereto. This Letter may be amended only by a written agreement that is signed by the Parties. Evidence shall be inadmissible to show agreement by and between the Parties hereto to any term or condition contrary to or in addition to the terms and conditions contained in this Letter. This Letter shall be construed according to its fair meaning and not strictly for or against either Party.

9. **Counterparts.** The Letter may be executed in multiple counterparts, each of which shall serve as an original for all purposes, but all copies shall constitute but one and the same agreement, binding on all parties hereto, whether or not each counterpart is executed by all parties hereto, so long as each party hereto has executed one or more counterparts hereof. The exchange of a fully executed Letter by electronic delivery in .pdf format will be sufficient to agreement by the Parties to the terms and condition of this Agreement.

10. Except for 7, 8 and 9, **THIS LETTER DOES NOT CONSTITUTE OR CREATE, AND SHALL NOT BE DEEMED TO CONSTITUTE OR CREATE, ANY LEGALLY BINDING OR ENFORCEABLE OBLIGATION TO COMPLETE THE TRANSACTION ON THE PART OF EITHER OF THE PARTIES.** The Binding Provisions shall terminate and be of no further force or effect upon the earlier to occur of (a) three hundred and sixty-five (365) days after the date that both parties have executed this Agreement, or (b) the termination of this letter agreement by mutual agreement of the Parties in writing (such earliest to occur date, the "Termination Date"). Upon termination of the Binding Provisions on the Termination Date, the Parties will have no further obligation or liability under this Letter.

The rest of the page is intentionally omitted.

IN WITNESS WHEREOF, the parties have executed this LOI as of the date fully executed below.

**Mark and Linda Heintz,
Land Owners**

**Sustainable Energy Developments, Inc.,
d/b/a GreenSpark Solar**

Name:

Kevin Schulte

Title: Land Owner

Title: CEO

Date:

Date:

EXHIBIT A

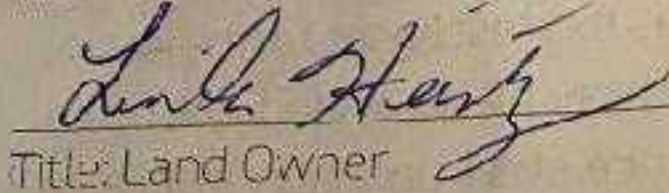
PREMISES

IN WITNESS WHEREOF, the parties have executed this LOI as of the date fully set forth below.

**Mark and Linda Heintz,
Land Owners**



Name:



Title: Land Owner

**Sustainable Energy Developments, Inc.
d/b/a GreenSpark Solar**

Kevin Schulte

Title: CEO

Date: 9.6.2022

Date:

AND NOT BE DEEMED TO CONSTITUTE OR CREATE ANY LEGALLY BINDING OR ENFORCEABLE OBLIGATION TO COMPLETE THE TRANSACTION ON THE PART OF THE PARTIES. THIS LETTER DOES NOT CONSTITUTE OR CREATE ANY LEGALLY BINDING OR ENFORCEABLE OBLIGATION TO COMPLETE THE TRANSACTION ON THE PART OF THE PARTIES. THE PARTIES HEREBY AGREE TO HOLD EACH OTHER HARMLESS FROM AND AGAINST ALL SUCH OBLIGATIONS AND DAMAGES, INCLUDING REASONABLE ATTORNEY'S FEES AND COSTS, THAT MAY BE INCURRED BY EITHER PARTY AS A RESULT OF THE PARTIES' EXECUTION OF THIS LETTER. THE PARTIES HEREBY AGREE TO HOLD EACH OTHER HARMLESS FROM AND AGAINST ALL SUCH OBLIGATIONS AND DAMAGES, INCLUDING REASONABLE ATTORNEY'S FEES AND COSTS, THAT MAY BE INCURRED BY EITHER PARTY AS A RESULT OF THE PARTIES' EXECUTION OF THIS LETTER.

LETTER OF INTENT FOR LAND LEASE AGREEMENT

This **LETTER OF INTENT** ("Letter") is entered into between **Mark and Linda Heintz** ("Land Owner") with property located at 55 Tobin Road (Parcel # 190.02-1-48.21) in the Town of Henrietta, and **Sustainable Energy Developments, Inc., d/b/a GreenSpark Solar** ("Tenant") located at 318 Timothy Road, Ontario, NY, referred to collectively as the "Parties"

The Letter sets forth the Parties' desires and intentions to negotiate a Land Lease Agreement (the "Agreement") for the installation a Photovoltaic (PV) generating system (the "System") on the Land Owner's Premises (as defined below) and their intention to negotiate the Agreement in good faith commencing with the full execution of this letter

1 **Premises.** Tenant desires to lease land from Land Owner land that is fully described in Exhibit 'A' attached hereto ('the Premises') Land Owner acknowledges and agrees that the exact size, shape and location of the property that will comprise the Premises has not been determined, and any maps or depictions which Tenant has shown or will show including are approximations only and subject to mutually agreed upon change

2. **Term.** The Term of the Agreement (the "Term") shall be Twenty-five years commencing on the date on which the project begins substantial construction (the "Term Commencement Date") At the end of the Term, the Tenant will have an Option to extend the term pursuant to the Parties reaching mutually agreeable terms in writing.

3 **A. Rent.** The "Rent Commencement Date" shall begin on the Term Commencement Date as defined above Within 30 days of the Rent Commencement Date, Tenant shall pay the Owner an initial rent payment of \$1,000-\$1,500 per acre per year for the first year's rent. The exact rent payment and acreage to be leased to be determined as stated above Tenant shall then pay Owner "Annual Rent" each year beginning on the Rent Commencement date anniversary, escalating at 1% per annum

B. Taxes. Tenant will negotiate with the taxing authorities for a Payment in Lieu of Taxes ("PILOT") agreement, which covers taxation of the solar equipment installed onsite Any changes to the underlying property taxes on the land itself, such as a loss of an agricultural exemption, are considered the Land Owner's responsibility

4 **Purpose.** As part of the Agreement, Tenant shall be granted the right to use the Premises for the purpose of construction, installing, removing, replacing, reconstructing, maintaining and operating a solar array project including solar panels, equipment, equipment shelters and buildings, electronics equipment generators and other equipment improvements. Further rights and responsibilities of the Parties shall be defined in the Agreement.

5. **Entry.** Land Owner consents and agrees that Tenant, its employees, agents and independent contractors ("Authorized Parties") may enter upon the Property to conduct and perform some or all of the following activities ("Permitted Activities") surveys, Phase I environmental audits, and boundary surveys.. Tenant agrees to be responsible for any and all costs related to the Permitted Activities, including installation on and operation and removal of equipment on the Property, repair and restoration of any damage to the Premises caused by the Permitted Activities, and indemnification against any claims arising by reason of the Permitted activities, including attorney fees expended in connection therewith

6 **Filings.** Land Owner consents and agrees that the Authorized Parties may make and file applications on Land Owner's behalf to such local, state and federal governmental entities whose approval Tenant may consider necessary or advisable to have the Property approved as a photovoltaic generating system, including, but not limited to, governmental approvals for zoning variances, rezoning applications, building permits and wetland permits. Land Owner hereby agrees that a copy of this Agreement is as effective as the original. However, if requested by the Authorized Parties, Land Owner agrees to execute such other and further documents as may be required by the governmental entity in question to evidence Land Owner's consent to the action which is proposed to be taken

7 **Confidentiality** Each Party shall treat as confidential and proprietary all information and data delivered to it by the other Party ("Confidential Information") Confidential Information shall not be disclosed to any third party, other than to either Party's subcontractors or sub consultants under similar nondisclosure agreements, during or subsequent to the term of this Agreement. Nothing contained herein shall preclude either Party from disclosing information or data (i) in the public domain without breach of this Agreement; (ii) developed independently by either Party; or (iii) where disclosure or submission to any governmental authority is required by applicable statutes, ordinances, codes, regulations, consent decrees, orders, judgments, rules, and all other requirements

of any and all governmental or judicial entities that have jurisdiction, but only after written notice has been received by the receiving Party

8 **Governing Law, Integration, Amendments.** This Letter shall be governed by the substantive laws of the State of New York without regard to conflict of law principles. This Letter constitutes the entire understanding and agreement between the Parties hereto and their affiliates with respect to its subject matter and supersedes all prior or contemporaneous agreements, representations, warranties and understandings of such Parties (whether oral or written) No promise, inducement, representation or agreement, other than as expressly set forth herein, has been made to or by the Parties hereto This Letter may be amended only by a written agreement that is signed by the Parties. Evidence shall be inadmissible to show agreement by and between the Parties hereto to any term or condition contrary to or in addition to the terms and conditions contained in this Letter This Letter shall be construed according to its fair meaning and not strictly for or against either Party

9 **Counterparts.** The Letter may be executed in multiple counterparts, each of which shall serve as an original for all purposes, but all copies shall constitute but one and the same agreement, binding on all parties hereto, whether or not each counterpart is executed by all parties hereto, so long as each party hereto has executed one or more counterparts hereof The exchange of a fully executed Letter by electronic delivery in .pdf format will be sufficient to agreement by the Parties to the terms and condition of this Agreement.

10 Except for 7, 8 and 9, **THIS LETTER DOES NOT CONSTITUTE OR CREATE, AND SHALL NOT BE DEEMED TO CONSTITUTE OR CREATE, ANY LEGALLY BINDING OR ENFORCEABLE OBLIGATION TO COMPLETE THE TRANSACTION ON THE PART OF EITHER OF THE PARTIES.** The Binding Provisions shall terminate and be of no further force or effect upon the earlier to occur of (a) three hundred and sixty-five (365) days after the date that both parties have executed this Agreement, or (b) the termination of this letter agreement by mutual agreement of the Parties in writing (such earliest to occur date, the "Termination Date") Upon termination of the Binding Provisions on the Termination Date, the Parties will have no further obligation or liability under this Letter

The rest of the page is intentionally omitted.

IN WITNESS WHEREOF, the parties have executed this LOI as of the date fully executed below

Mark and Linda Heintz.
Land Owners



Name:



Title: Land Owner

Date: 9.6.2022

Sustainable Energy Developments, Inc.
d/b/a GreenSpark Solar



Name: Kevin Schulte

Title: CEO

Date: Oct 17, 2023

Date: