

# PRELIMINARY SCOPING STATEMENT

## Trelina Solar Energy Center

Town of Waterloo  
Seneca County, New York

Case No.: 19-F-0366

*Prepared for:*

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## TABLE OF CONTENTS

1.0	Introduction.....	1
2.0	Applicant and Project Description.....	2
2.1	Company Profile.....	2
2.2	Project Description.....	3
2.3	Project and Study Area .....	5
2.4	Summary of Pre-Application Activities .....	6
2.5	Organization of the Preliminary Scoping Statement .....	7
3.0	Contents of Application.....	8
3.01	General Requirements - Public Contact and Project Information (Exhibit 1) ..	8
3.02	Overview and Public Involvement (Exhibit 2).....	12
3.03	Location of Facilities (Exhibit 3) .....	17
3.04	Existing Land Use and Project Planning (Exhibit 4).....	20
3.05	Electric Systems Effects (Exhibit 5) .....	28
3.06	Wind Power Facilities (Exhibit 6).....	35
3.07	Natural Gas Power Facilities (Exhibit 7).....	36
3.08	Electric System Production Modeling (Exhibit 8) .....	37
3.09	Applicable, Reasonable and Available Alternatives (Exhibit 9).....	39
3.10	Consistency with State Energy Planning Objectives (Exhibit 10) .....	44
3.11	Preliminary Design Drawings (Exhibit 11).....	47
3.12	Construction (Exhibit 12).....	53
3.13	Real Property (Exhibit 13).....	58
3.14	Cost of Facilities (Exhibit 14).....	60
3.15	Public Health and Safety (Exhibit 15).....	62
3.16	Pollution Control Facilities (Exhibit 16).....	67
3.17	Air Emissions (Exhibit 17) .....	68
3.18	Safety and Security (Exhibit 18).....	71
3.19	Noise and Vibration (Exhibit 19).....	76
3.20	Cultural Resources (Exhibit 20) .....	88
3.21	Geology, Seismology, and Soils (Exhibit 21) .....	99
3.22	Terrestrial Ecology and Wetlands (Exhibit 22) .....	113
3.23	Aquatic Ecology and Water Resources (Exhibit 23) .....	143
3.24	Visual Impacts (Exhibit 24).....	157
3.25	Effect on Transportation (Exhibit 25).....	166
3.26	Effect on Communication (Exhibit 26).....	171
3.27	Socioeconomic Effects (Exhibit 27).....	174
3.28	Environmental Justice (Exhibit 28).....	180
3.29	Site Restoration and Decommissioning (Exhibit 29) .....	183
3.30	Nuclear Facilities (Exhibit 30).....	186
3.31	Local Laws and Ordinances (Exhibit 31).....	187
3.32	State Laws and Regulations (Exhibit 32) .....	200
3.33	Other Applications and Filings (Exhibit 33) .....	204
3.34	Electric Interconnection (Exhibit 34).....	206
3.35	Electric and Magnetic Fields (Exhibit 35).....	208
3.36	Gas Interconnection (Exhibit 36).....	211
3.37	Back-up Fuel (Exhibit 37).....	212
3.38	Water Interconnection (Exhibit 38).....	213
3.39	Wastewater Interconnection (Exhibit 39) .....	214
3.40	Telecommunications Interconnection (Exhibit 40) .....	215

3.41     *Applications to Modify or Build-Adjacent (Exhibit 41)*.....216

4.0     Summary and Conclusions..... 217

5.0     References ..... 230

**FIGURES**

- Figure 1. Regional Project Location
- Figure 2. Project Area and Study Area
- Figure 3. Mapped Existing Land Use in the Study Area
- Figure 4. Existing Vegetated Cover in the Study Area
- Figure 5. Agricultural Districts in the Study Area
- Figure 6. FEMA Flood Zones in the Study Area
- Figure 7. Slopes in the Study Area
- Figure 8. Mapped Soils in the Project Area
- Figure 9. Seismic Hazard in the Project Area
- Figure 10. Groundwater Aquifers in the Study Area
- Figure 11. Mapped Water Wells in the Study Area
- Figure 12. Mapped Streams and Wetlands in the Project Area
- Figure 13. Tax Assessment Jurisdiction in the Study Area

**APPENDICES**

- Appendix A. PIP Meeting Log
- Appendix B. Copy of PSS Notice
- Appendix C. PIP Plan
- Appendix D. Stakeholder List
- Appendix E. USFWS IPaC Official Species List
- Appendix F. Grassland Breeding Bird Survey Study Plan



## Acronyms and Abbreviations

AADT	annual average daily traffic
AASHTO	American Association of State Highway and Transportation Officials
ACI	American Concrete Institute
ACS	American Community Survey
ANSI	American National Standards Institute
APE	Area of Potential Effect
ASA	Acoustical Society of America
ASCE	American Society of Civil Engineers
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
BBA	Breeding Bird Atlas
BBS	Breeding Bird Survey
BGEPA	Bald and Golden Eagle Protection Act
BLM	Bureau of Land Management
BMP	best management practices
CAA	Clean Air Act
CBC	Christmas Bird Counts
CES	Clean Energy Standard
CFR	Code of Federal Regulations
CIP	Critical Infrastructure Protection
CLCPA	Climate Leadership and Community Protection Act
Cmet	meteorological correction
CRIS	Cultural Resources Information System
CWA	Clean Water Act
CZMA	Coastal Zone Management Act
DEM	digital elevation models
DHSES	Division of Homeland Security and Emergency Services
DMM	Document and Matter Management
DOD	Department of Defense
DPS	Department of Public Service
DSNY	Dig Safe New York
EAF	environmental assessment form
ECL	Environmental Conservation Law
ECOS	Environmental Conservation Online System
EDR	Environmental Design & Research, Landscape Architecture, Engineering, & Environmental Services, D.P.C.
EMF	electromagnetic fields
EMS	Emergency Medical Services
EPA	Environmental Protection Agency
EPC	Engineering and Procurement Contractor
ERM	Environmental Resource Mapper
ERP	emergency response plan
ESCP	erosion and sediment control plan

Esri	Environmental Systems Research Institute
FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency
FERC	Federal Energy Regulatory Commission
FHWA	Federal Highway Administration
FOIL	Freedom of Information Law
FPDC	Fleet Performance and Diagnostic Center
GEMAPS	GE Energy Consulting's Multi-Area Production Simulation
GHG	greenhouse gas
GIS	Geographic Information Systems
GPS	global positioning system
HDD	horizontal directional drilling
HMANA	Hawk Migration Association of North America
HSG	hydrologic soil group
HUC	hydrologic unit codes
ICEA	Insulated Cable Engineers Association
IDA	Industrial Development Agency
IEEE	Institute of Electrical and Electronic Engineers
ISMCP	invasive species management and control plan
ISO	International Organization for Standardization
LORAN	long range navigation
LSZ	landscape similarity zones
MBTA	Migratory Bird Treaty Act
MLRA	Major Land Resource Area
MW	megawatts
NEC	National Electric Code
NEER	NextEra Energy Resources, LLC
NEMA	National Electric Manufacturers Association
NERC	North American Electric Reliability Corporation
NESC	National Electrical Safety Code
NFPA	National Fire Protection Association
NHPA	National Historic Preservation Act
NIA	noise impact assessment
NIST	National Institute of Standards and Technology
NLCD	National Land Cover Database
NOI	Notice of Intent
NPCC	Northeast Power Coordinating Council, Inc.,
NPS	National Park Service
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NSPS	New Source Performance Standards
NTIA	National Telecommunications and Information Administration
NWI	National Wetlands Inventory
NYAC	New York Archaeological Council
NYCRR	New York Codes, Rules and Regulations

NYISO	New York Independent System Operator
NYNHP	New York Natural Heritage Program
NYS	New York State
NYSCR	New York State Reliability Council
NYSDAM	New York State Department of Agriculture and Markets
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
NYSDOT	New York State Department of Transportation
NYSEG	New York State Electric and Gas Corporation
NYSEPB	New York State Energy Planning Board
NYSERDA	New York State Energy Research and Development Authority
NYSORPTS	New York State Office of Real Property Tax Services
OPRHP	New York State Office of Parks, Recreation, and Historic Preservation
OSHA	Occupational Safety and Health Administration
O&M	Operation and Maintenance
PEM	Palustrine emergent
PFO	Palustrine forested
PILOT	Payment In Lieu of Tax
PIP	Public Involvement Program
PNIA	Pre-Construction Noise Impact Assessment
POI	point of interconnection
POL	Public Officers Law
PSC	Public Service Commission
PSL	Public Service Law
PSS	Preliminary Scoping Statement / Palustrine scrub-shrub
PUB	Palustrine unconsolidated bottom
RCNM	Roadway Construction Noise Model
REC	Renewable Energy Credit
RESRFP	Renewable Energy Standard Solicitation Request for Proposal
REV	Reforming the Energy Vision
ROCC	Renewables Operations & Control Center
ROW	right-of-way
RUS	Rural Utilities Service
SCADA	supervisory control and data acquisition
SEP	State Energy Plan
SEQRA	State Environmental Quality Review Act
SGCN	species of greatest conservation need
SHPO	State Historic Preservation Office
SLM	sound level meter
SLR	single-lens reflex
SPCC	spill prevention control and countermeasure
SPDES	State Pollutant Discharge Elimination System
SRIS	System Reliability Impact Study
SSC	species of special concern
SSESC	Standards and Specifications for Erosion and Sediment Control

STE	short term emergency
STP	shovel test pit
SWPPP	Stormwater Pollution Prevention Plan
THPO	Tribal Historic Preservation Office
T&E	threatened and endangered
UBC	Uniform Building Code
UL	United Laboratories
USACE	United States Army Corps of Engineers
USBM	United States Bureau of Mines
USC	United States Code
USDA	United States Department of Agriculture
USFS	United States Forest Service
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
VIA	visual impact assessment
VSA	visual study area
WHO	World Health Organization
WRS	Winter Raptor Survey

## 1.0 Introduction

Trelina Solar Energy Center, LLC, (Trelina Solar Energy Center or Applicant) a wholly owned indirect subsidiary of NextEra Energy Resources, LLC (NEER), and formerly known as North Light Energy Center, plans to submit an application to construct a major electric generating facility, the Trelina Solar Energy Center (Project), under Article 10 of the Public Service Law (PSL). Pursuant to the rules of the New York State (NYS) Board on Electric Generation Siting and the Environment (Siting Board), applicants proposing to submit an application to construct a major electric generating facility under Article 10 (Application) must submit a Preliminary Scoping Statement (PSS) no less than 90 days prior to filing the Application.

The Applicant has been implementing its Public Involvement Program Plan (PIP Plan) and conducting stakeholder outreach as well as consulting with local, state, and federal government agencies, and Project stakeholders. Consultations and meetings have been documented in a Meeting Log maintained by the Applicant, which will be updated and submitted to the Secretary on a quarterly basis (or as necessary) and is available on the Applicant's website ([www.trelinasolarenergycenter.com](http://www.trelinasolarenergycenter.com)). The most recent Meeting Log is included with this PSS as Appendix A. The Applicant will continue to implement the PIP Plan and conduct outreach activities throughout the scoping process, during the preparation of the Application, and throughout the remainder of the Article 10 process.

The purpose of the PSS is to present "... as much information as is reasonably available concerning the proposed Project..."and propose the methodology, scope of studies, or program of studies to be conducted in support of the Application to be submitted for the Project pursuant to Article 10. The required content of the PSS is prescribed in 16 New York Codes, Rules and Regulations (NYCRR) § 1000.5(l).

Pursuant to 16 NYCRR § 1000.5(g), within 21 days after the filing of this PSS, any person, agency, or municipality may submit comments on the PSS and file a copy with the Applicant and the Secretary to the Siting Board. Further details for filing comments on this PSS are provided in the Notice accompanying this document (see Appendix B for a copy of the Notice).



## **2.0 Applicant and Project Description**

### **2.1 Company Profile**

Trelina Solar Energy Center, LLC, a limited liability company that will develop, own, operate and maintain a solar-powered wholesale generating project in Seneca County, New York, is a wholly owned indirect subsidiary of NEER.

NEER is a nationally recognized clean energy provider with a portfolio totaling over 21,000 megawatts (MW) of generating capacity in the United States and Canada, of which over 2,000 MW is derived from the sun. NEER operates primarily as a wholesale power generator, providing power and environmental attributes to utilities, retail electricity providers, power cooperatives, municipal electric providers, and large industrial companies. Approximately 99 percent of NEER's electricity is derived from clean or renewable sources, including solar and wind. NEER, together with its affiliated entities, is the world's largest operator of renewable energy from the wind and sun.

The Trelina Solar Energy Center was selected as part of the New York State Energy Research and Development Authority (NYSERDA) 2017 Renewable Energy Standard Solicitation Request for Proposal (RESRFP 17-1) to purchase Renewable Energy Credits (RECs) from large-scale renewable energy projects. The Project will consist of a 79.5 to 80 MW solar energy center and will be consistent with NYS's policies promoting renewable energy goals, including the 2015 New York State Energy Plan (SEP), the Clean Energy Standard (CES), and the 2019 Climate Leadership and Community Protection Act (CLCPA), which collectively seek to achieve an 85 percent reduction in greenhouse gas (GHG) emissions by 2050, the generation of 70 percent of the State's electricity by renewable energy sources by 2030, and 100 percent by 2040 (70-by-30 and 100-by-40).





## 2.2 Project Description

The Project will have a generating capacity of 79.5 to 80 MW and will be located on land leased from owners of private property in the Town of Waterloo, Seneca County, New York (Figure 1). Project facilities will include commercial-scale solar arrays, access roads, buried (and possibly overhead) electric collection lines, a collection substation, and electrical interconnection facilities. Trelina Solar Energy Center anticipates the interconnection facilities will include a 115 kV switchyard, which will be transferred to the New York State Electric and Gas Corporation (NYSEG) to own, maintain, and operate. The proposed Point of Interconnection (POI) will be a tap on NYSEG's existing Border City to Station 122 115 kV transmission line, the distance of which has yet to be determined but is anticipated to be a few hundred feet or less. The proposed collection substation and POI switchyard will be located on land within the Project Area, adjacent to NYSEG's existing Border City to Station 122 115 kV transmission line (Figure 2).

The proposed height of the solar array itself will be approximately 10 feet. As solar technology is rapidly advancing, it is not possible to determine the exact module type that will be used for a project with a commercial operation date in 2022. However, the Applicant intends to utilize a module similar to the Jinko Solar Eagle 72HM G2 380-400 Watt Mono Perc Diamond Cell. The Applicant is still assessing the use of either a tracking or fixed array system.

The proposed Project will have positive socioeconomic impacts in the Project Area, in adjacent towns, and beyond through employment opportunities, specifically by generating construction employment. Based on similar project experience elsewhere, Trelina Solar Energy Center estimates that up to approximately 100-150 construction jobs (peak) will be generated during the approximate nine to twelve months of construction. Local construction employment will primarily benefit those in the construction trades, including equipment operators, truck drivers, laborers, and electricians. Trelina Solar Energy Center encourages local hiring to the maximum extent practicable. Workers from outside the area who fill specialized job functions will add to the regional economy by staying in area hotels, eating in the local restaurants, and shopping in Seneca County stores. Additionally, the Trelina Solar Energy Center will require one to two permanent employment positions during the proposed 30-year operational period.

Trelina Solar Energy Center will commence discussions with the Seneca County Industrial Development Agency (IDA), and other relevant participants concerning the structure and level of a Payment In Lieu of Tax (PILOT) agreement.

## 2.3 Project and Study Area

Figure 1 shows the Regional Project Location. The Project Area and the Study Area to be used for analysis are shown on Figure 2. For purposes of this document, Trelina Solar Energy Center is defining these areas as follows:

- The Project Area is the land for which the Applicant has obtained real property rights to develop the Project, and includes the locations being evaluated for placement of permanent Project facilities. As shown in Figure 2, the Project Area includes approximately 1,072 acres of land, portions of which would be used for the proposed solar energy center. Additional land area beyond what is required for the proposed solar energy center is included in the Project Area in order to provide setbacks from neighboring land uses and to minimize impacts to environmental resources to the maximum extent practicable. Within the Project Area, it is anticipated that the proposed solar energy center would comprise an area of approximately 450 acres of land.
- Consistent with 16 NYCRR § 1000.2(ar), the Study Area (as shown in Figure 2) is all areas within at least two miles of the Project Area boundaries (which includes the planned location of Project generating components, interconnections and related facilities), and includes approximately 17,625 acres of land (inclusive of the approximately 1,072-acre Project Area). The Study Area includes the City of Geneva, Town of Geneva, and Town of Phelps in Ontario County as well as the Towns of Waterloo and Fayette in Seneca County. As a number of studies will be performed in support of the Application, some of the studies may use resource-specific study areas greater than the two-mile radius, as will be discussed in this PSS.

For the purpose of this document, the following definitions are provided for clarification: off-site and on-site are respectively defined as outside or within the Project Area. For archaeological resources, the Area of Potential Effect (APE) is defined as where significant ground disturbances may occur, inclusive of access roads, workspaces, collection lines, any proposed collection substations and interconnection facilities, and other areas of significant ground-disturbing activities (such as grading). This standard terminology will be used throughout this PSS and the Application. Additionally, the Application will include a list of acronyms.



## 2.4 Summary of Pre-Application Activities

Prior to the filing of this PSS, Trelina Solar Energy Center prepared a PIP Plan originally submitted to the New York State Department of Public Service (DPS) on May 13, 2019. This document was submitted in accordance with 16 NYCRR § 1000.4. The Project was assigned Case No. 19-F-0366. Comments on the PIP Plan were received from the DPS on June 12, 2019. This document was updated, finalized, and filed on July 12, 2019. Paper copies of the PIP Plan were provided to the following locations:

- Town of Waterloo Municipal Offices, 66 Virginia Street, Waterloo, NY 13165
- Waterloo Library and Historical Society 31 East Williams Street, Waterloo, NY 13165
- Geneva Public Library, 244 Main Street Geneva, NY 14456

The PIP Plan can be accessed on the DPS online case record website maintained by the Siting Board

(<http://documents.dps.ny.gov/public/MatterManagement/CaseMaster.aspx?MatterSeq=59765&MNO=19-F-0366>) and on a Project-specific website created and maintained by Trelina Solar Energy Center ([www.trelinasolareenergycenter.com](http://www.trelinasolareenergycenter.com)).



## **2.5 Organization of the Preliminary Scoping Statement**

This PSS has been organized in accordance with 16 NYCRR § 1001, with all sub-sections in Part 3 directly corresponding with each Exhibit that will be included in the Application (set forth in 16 NYCRR § 1001). In order to ensure compliance with 16 NYCRR § 1000.5(l), a content matrix has been created and is included in the Summary and Conclusions section (Section 4.0) of this document. This matrix cross-references the different requirements of 16 NYCRR § 1000.5(l) with the sections applicable to this PSS.

The information presented in this PSS is preliminary in nature and presents information on the design of the Project as is reasonably available in its early stages of development. As the Project is advanced, the Application will clearly depict all proposed solar photovoltaic array locations, along with the locations of other Project components. The linear distances of components will be presented in the Application based on the footprint that will be analyzed. Furthermore, the Application will analyze potential impacts of the proposed Project by conducting on-site and computer-based review of the Project Area and where applicable, the Project Study Area. Figures and Appendices are referenced in the text of this PSS and presented at the end of the document.





### **3.0 Contents of Application**

#### **3.01 General Requirements - Public Contact and Project Information (Exhibit 1)**

The proposed Trelina Solar Energy Center is located in Seneca County, New York, within the Town of Waterloo, and is being developed by Trelina Solar Energy Center, LLC.

Applicant: Trelina Solar Energy Center, LLC  
700 Universe Blvd., FEW/JB  
Juno Beach, FL 33408  
Telephone: (800) 405-9723  
Fax: (561) 304-5404  
Email: [info@trelinasolarenergycenter.com](mailto:info@trelinasolarenergycenter.com)

Project Website: [www.trelinasolarenergycenter.com](http://www.trelinasolarenergycenter.com)

Public Contact and Designated Agent: Mr. David Boxold  
700 Universe Blvd., FEW/JB  
Juno Beach, FL 33408  
Telephone: (561) 694-4735  
Fax: (561) 304-5404  
Email: [David.Boxold@nexteraenergy.com](mailto:David.Boxold@nexteraenergy.com)

Principal Officer: Mr. John DiDonato, Vice President  
700 Universe Blvd., FEW/JB  
Juno Beach, FL 33408  
Telephone: (561) 694-4735  
Fax: (561) 304-5404  
Email: [info@trelinasolarenergycenter.com](mailto:info@trelinasolarenergycenter.com)

Document service should be made to the Project's Public Contact (Mr. David Boxold). The Application will indicate if additional document service will be requested at that time for the Applicant's agent or counsel, and related contact information will be included.

Additional inquiries related to the Project can be directed to [info@trelinasolarenergycenter.com](mailto:info@trelinasolarenergycenter.com) or at (800) 405-9723. This toll-free number established for the Project will be provided in the Application where public contact information is requested and will also be included on the Public Notice. The Project website can be found at [www.trelinasolarenergycenter.com](http://www.trelinasolarenergycenter.com).

Trelina Solar Energy Center, LLC, a limited liability company that was originally formed as North Light Energy Center, LLC on May 17, 2018 in Delaware, and it will develop, own, operate and maintain a solar-powered wholesale generating facility in Seneca County, New York. Trelina Solar Energy Center, LLC is a wholly owned, indirect subsidiary of NEER. NEER is located at 700 Universe Blvd, Juno Beach, Florida 33408. A copy of the certificate or other documents of formation will be provided with the Application.

The following shall apply to each of the exhibits to the Application:

- (a) The application for a certificate shall contain the exhibits described by Part 1001 as relevant to the Project technology and site, and such additional exhibits and information as the Applicant may consider relevant or as may be required by the Siting Board or the Presiding Examiner. Exhibits that are not relevant to the particular application have been omitted.
- (b) Each exhibit shall contain a title page showing:
  - (i) The Applicant's name.
  - (ii) The title of the exhibit.
  - (iii) The proper designation of the exhibit.
- (c) Formatting:
  - (i) Each exhibit consisting of 10 or more pages of text shall contain a table of contents citing by page and section number or subdivision the component elements or matters contained in the exhibit.
  - (ii) Each exhibit which includes reference or supporting documents such as attachments or appendices shall contain a table of contents that indicates those supporting documents. The location of information within the Application (including exhibits, attachments and appendices, specifically addressing the

relevant requirements of 16 NYCRR § 1001 will be clearly identified either in the table of contents or in the form of a matrix in order to ensure completeness and facilitate review. The Application will provide a list of acronyms as an appendix to the Table of Contents. All reference citations within the body of any exhibit will be fully cited at the relevant list of reference documents.

- (d) In collecting, compiling, and reporting data required by 16 NYCRR § 1001, the Applicant shall establish a basis for statistical comparison with data which shall subsequently be obtained under any program of post-construction monitoring. In addition, the Applicant will provide the NYSDEC and DPS, contemporaneously with the filing of the Application, shapefiles suitable for use in Geographic Information Systems (GIS) software via Esri's ArcGIS suite of software containing all applicable Project and survey components using NYSDEC's *Guidelines for Conducting Bird and Bat Studies at Commercial Wind Energy Projects* (June 2016) as guidance. Applicable shapefiles will also be provided to accompany any applicable wildlife and habitat survey reports when they are ready to be submitted by the Applicant.
- (e) If the same information is required for more than one exhibit, it may be supplied in a single exhibit and referenced in other exhibit(s) where it is also required.
- (f) Exhibit 1 shall also contain:
  - (i) The name, address, telephone number, facsimile number, and E-mail address of Trelina Solar Energy Center, LLC.
  - (ii) The address of the website established by the Applicant to disseminate information to the public regarding the Application.
  - (iii) The address, telephone number, facsimile number, and E-mail address of David Boxold, who is the person that the public may contact for more information regarding the application.
  - (iv) The business address, telephone number, facsimile number, and e-mail address of the principal officer of the Applicant, John DiDonato, Vice President.

- (v) If the Applicant desires service of documents or other correspondence upon an agent, the name, business address, telephone number, facsimile number, and E-mail address of the agent.
- (vi) A brief explanation of Trelina Solar Energy Center, LLC, a wholly owned, indirect subsidiary of NextEra, including its date and location of formation and the name and address of its parent.
- (vii) A certified copy of the certificate of formation for Trelina Solar Energy Center, LLC.

## 3.02 Overview and Public Involvement (Exhibit 2)

### **Description**

The proposed Project consists of a solar photovoltaic energy generation facility located in the Town of Waterloo, Seneca County, New York. The proposed Project Area boundary (see Figure 2) consists of approximately 1,072 acres of land, and the general landscape is primarily a mix of agricultural and forested land. Within the Project Area, it is anticipated that the proposed solar energy center would comprise an area of approximately 450 acres of land.

The proposed Project will consist of a 79.5 to 80 MW solar energy center. Proposed components of the Project include commercial-scale solar arrays, access roads, fencing, inverters, buried (and possibly overhead) electric collection lines, a collection substation, and electrical interconnection facilities. A description of the solar array, as well as the proposed locations of the solar array will be identified in the Application. Additional Project facilities consist of a new collection substation and 115 kV switchyard, which will be transferred to NYSEG to own, maintain, and operate. The proposed POI will be a tap on NYSEG's existing Border City to Station 122 115 kV transmission line, the distance of which has yet to be determined but is anticipated to be a few hundred feet or less. The proposed collection substation and interconnection facilities will be located on land located within the Project Area (defined in Section 2.4).

### **Application Content Summary**

The Application will comply with all applicable sections of PSL § 164 and 16 NYCRR § 1001 (Content of an Application). This PSS offers preliminary Project design information, as is reasonably available, with supporting figures and appendices. The Application will provide more detailed conceptual design information, analyses, and content.

### **Pre-Application Public Involvement**

The Applicant prepared a PIP Plan in accordance with the requirements of 16 NYCRR § 1000.4. The PIP Plan was submitted to the DPS on May 13, 2019. Following the receipt of DPS comments on the PIP Plan, the PIP Plan was updated, finalized, and filed by the Applicant on June 12, 2019. The PIP Plan was created to identify and involve affected stakeholders, introduce the Project to the local community and other interested parties, explain the public outreach and involvement efforts that the Applicant will pursue throughout the development of

this Project, hear stakeholder concerns and input, and explain how these efforts comport with and satisfy New York’s legal and regulatory requirements. Trelina Solar Energy Center has completed the pre-PSS consultations set forth in the PIP Plan’s Appendix B and has held multiple stakeholder meetings. Meetings are summarized in the PIP Meeting Log (Appendix A). The final PIP Plan is included herein as Appendix C.

Trelina Solar Energy Center mailed informational flyers to over 5,800 addresses including host and adjacent property owners within the Project Study Area announcing the first project open house event, which was held on September 25, 2019. Information was presented describing the proposed Project, Article 10 requirements, proposed studies, availability of intervenor funding, and the review process. Input from attendees was also received and documented. PIP activities are ongoing. Copies of all filed or public outreach documents are also available on the Project website at [www.trelinasolarenergycenter.com](http://www.trelinasolarenergycenter.com). Two additional open house meetings will be held on a date following submission of this PSS.

#### **Post-Application Public Involvement**

After submission of the Application, Trelina Solar Energy Center will continue to engage stakeholders by conducting outreach to encourage involvement and open communication.

Ongoing PIP Plan activities will continue to be tracked and filed in the Meeting Log, which is attached as Appendix A, posted on the Project website, and will be submitted to the Secretary on a quarterly or as-needed basis.

#### **PSS Distribution and Notification Efforts**

Notification of filing of the PSS, as required by 6 NYCRR § 1000.5 and § 1000.6, is available on the Project website and will be published in the following newspapers:

- The Finger Lakes Times, a paid-subscription, daily newspaper for the Finger Lakes Region including Seneca, Ontario, Wayne, and Wates Counties.
- The Reveille Between the Lakes/Seneca Daily News, a free online-only daily news source for Seneca County and the surrounding area.
- The Seneca County Area Shopper, a free weekly newspaper serving Seneca, Schuyler, and Tompkins Counties ([www.scashopper.com](http://www.scashopper.com)).
- Finger Lakes Pennysaver in Seneca Falls.

In addition to the newspaper notices, the stakeholder list has been notified via email or mail (depending on their stated preference) of the PSS Filing. The Applicant has provided an updated stakeholder list with this filing (see Appendix D), which includes host and adjacent landowners (adjacent landowners are those landowners within 2,500 feet of the Project Area property boundaries) and other parties identified through the Applicant's outreach efforts, as well as proof that a mailing and newspaper publication has occurred. Copies of the PSS are also available at the following local repositories:

- Town of Waterloo Municipal Offices, 66 Virginia Street, Waterloo, NY 13165
- Waterloo Library and Historical Society 31 East Williams Street, Waterloo, NY 13165
- Geneva Public Library, 244 Main Street Geneva, NY 14456

### **Proposed Studies**

The Applicant proposes to collect, evaluate, and provide the following information to support and prepare Exhibit 2 of the Application (not to exceed 15 pages in accordance with 16 NYCRR § 1001.2):

- (a) A brief description of the major components of the proposed Project, including commercial-scale solar arrays, access roads, electric collection lines, collection substation, switchyard, and the 115 kV transmission line that taps into the existing NYSEG Border City to Station 122 transmission line. The proposed tap will be approximately several hundred feet long and within the Project Area. The Application will provide any Project component dimensions given in meters by the equivalent value in feet.
  - (i) In the description of the solar array, the Applicant will provide the manufacturer's specification sheets and will indicate whether the panels will be solar tracking, as applicable. To the extent the proposed panel has been selected, the information will be provided in the Application. If the precise panel has not been selected, typical information for the proposed panel will be presented.
- (b) A brief summary of the contents of the Application, except those exhibits which do not apply to the proposed Project

- (c) A brief description of the PIP Plan conducted by the Applicant prior to submission of the Application and an identification of significant issues raised by the public and affected agencies during such program and the response of the Applicant to those issues including a summary of changes made to the proposal as a result of the PIP Plan (i.e. resulting from outreach efforts). Additionally:
- (i) Specific components of the PIP Plan conducted to date and the topics addressed will be discussed, including: opportunities for public involvement, development and use of the stakeholder list (including host and adjacent landowners), identification of any environmental justice areas, the use of document repositories, consultation with affected agencies and stakeholders, factsheets on the Article 10 process, intervenor funding and other outreach materials, use of meeting logs, and the establishment of a Project website ([www.trelinasolarenergycenter.com](http://www.trelinasolarenergycenter.com)) and local telephone number; Paper copies of major Project documents, except those subject to protective order, will be sent to the designated local repositories. The Project is not currently planned to have a local office.
  - (ii) The description shall include public involvement activities regarding the filing of the Project Application. Notice of the Application submittal will be mailed in accordance with 16 NYCRR § 1000.5 (c). In addition, notice will be mailed to a Project mailing list consisting of the updated stakeholders list, including host and adjacent landowners, and additional addresses received through public outreach. The notice will include information on the Project generally and the Article 10 Application specifically. A copy of the mailing list and documentation indicating the dates and mailings that were made will be provided to the Secretary. The Application will include the updated stakeholder list.
  - (iii) In addition to newspaper publication as required under 16 NYCRR 1000.7(a), the Applicant will publish notice about the Application in at least one free local newspaper circulated in the Project and Study Area if available; and
  - (iv) Regarding the open house events held on September 25, 2019, additional details will be listed, including when the informational flyers were mailed, when notification was placed in the newspaper and how many people attended.



Information on the types of comments that were received and whether the Applicant took any follow-up actions will be included in the Application.

- (v) The Application will provide a summary of questions asked at outreach events and meetings. The Applicant will indicate how it addressed or plans to address the questions. Any further public involvement activities will be included in the Project's PIP meeting log that can be found on the Project website and the DPS Document and Matter Management (DMM) website. Further information will be provided in the Application.
- (d) A brief description of the PIP Plan to be conducted by the Applicant after submission of the Application
- (e) A brief, clearly, and concisely written analysis in plain language that presents the relevant and material facts regarding the proposed Project which the Applicant believes the Siting Board should use as the basis for its decision. The analysis shall be analytical, not encyclopedic, and shall specifically address each required finding, determination, and consideration the Siting Board must make or consider in its decision pursuant to Section 168 of the PSL and explain why the Applicant believes the requested Certificate should be granted.
- (f) Paper copies of major Project documents, except those subject to trade secret protection under the Board's rules and any adopted protective order, will be sent to the designated local repositories



### 3.03 Location of Facilities (Exhibit 3)

Figure 1 shows the general region in which the Project is located. Figure 2 shows the boundary of the area in which Project facilities are currently proposed (Project Area) and the corresponding Study Area which encompasses two miles from the boundaries of the Project Area. The Application will include detailed topographic mapping based on a 2018 (or most recent) version of the United States Geological Survey (USGS) 1:24,000 edition Geneva North topographic quadrangle which will indicate contours, roads, railways, utility corridors, streams, waterbodies, and other features of interest. The scale of the figures will allow for detailed location information, indication of local roads, and clear identification of Project components.

The proposed locations of Project facilities will be identified on USGS topographic base maps as well as aerial photos (Environmental Systems Research Institute [Esri]) in order to provide a clear understanding of the Project layout in relation to existing resources and features. Municipal boundaries (county, city, town, and village) will be obtained from the New York State GIS Clearinghouse and Esri and provided on appropriate mapping. Base map sources, formats, layout sizes and scales for the Application will be identified in any stipulations agreed to by the parties. In addition, the Applicant will provide GIS shapefiles of Project locational information to the DPS as part of the Application.

A written Project description accompanied by representative mapping will identify and describe the locations of Project components based upon reasonably available information, including:

- Commercial-scale solar arrays;
- Inverters;
- Access roads;
- Fencing;
- Collection lines (mostly buried and possibly some overhead);
- Laydown/staging areas;
- The collection substation; and
- The 115 kV switchyard and tap line.

The Project does not include any ancillary features located outside the Project Area.

The Project, including all related facilities, will be sited on privately-owned lands within the Project Area obtained through lease agreements with landowners.

### **Proposed Studies**

The Applicant proposes to collect, evaluate, and provide the following information to support and prepare Exhibit 3 of the Application in accordance with 16 NYCRR § 1001.3:

- (a) The most recent USGS maps (1:24,000 topographic edition) reproduced at original scale showing:
  - (i) The proposed location of the major electric generating facility (i.e., Project) and locations of all Project components including commercial scale solar arrays, access roads, collection lines, on site laydown/staging areas, collection substation, and switchyard and tap line. Mapping will include the locations of roads, substations, and similar facilities, as applicable. There is currently no Operation and Maintenance (O&M) building proposed to be built as part of the Project. A list of proposed locations to be indicated on maps will include perimeter fencing (around the solar panel arrays, substation, and switchyard); employee operational parking; and locations of proposed landscape berms, fences, and other features, as applicable. The Applicant will specify the location of the collection substation and POI switchyard, and will provide a map detailing the location of access roads from public roadways to be utilized for construction and operation of these facilities.;
  - (ii) The proposed location of any interconnections, water supply lines, communications lines, stormwater drainage lines, and appurtenances thereto, to be installed in NYS connecting to and servicing the site of the Project that are not subject to the Commission's jurisdiction under PSL Article VII;
  - (iii) The location of all proposed ancillary features not located in the Project Area, if applicable, such as roads, railroads, switchyards, fuel or energy storage or regulation facilities, solid waste disposal areas, waste treatment and disposal facilities, and similar facilities, that are not subject to the Siting Board's jurisdiction under PSL Article 10. At this time, no such facilities are proposed;
  - (iv) There are no proposed electric transmission line or fuel gas transmission line interconnections that are subject to review under Article VII of the PSL proposed

as part of the Project; therefore, this information is not required to be included as part of the Application; and

- (v) The Study Area for the Project is generally related to the nature of the technology and the setting of the proposed Project Area. Based on the scale of the Project and the Project setting, the Application will include the evaluation of a two-mile Study Area from all Project Area property boundaries unless stated otherwise in the Application for resource-specific surveys. The proposed Project is not located in areas of significant resource concerns that would justify expanding the Study Area.
  
- (b) Maps clearly showing the location of the proposed Project Area and a two-mile study area. Mapping will also show the interconnections, including electric collection lines, collection substation, the 115 kV switchyard, and the tap line in relation to municipal boundaries, taxing jurisdictions, and designated neighborhoods or community districts, at a scale sufficient to determine and demonstrate relation of facilities to those geographic and political features.
  
- (c) Written descriptions explaining the relation of the location of the proposed Project Area, the interconnections, including electric collection lines, collection substation, the 115 kV switchyard and tap line in relation to affected municipalities, taxing jurisdictions, and designated neighborhoods or community districts.



### 3.04 Existing Land Use and Project Planning (Exhibit 4)

A map of the existing land uses for the Project Area has been prepared (see Figure 3) using publicly available data from the Seneca County Real Property Tax Office and the classification codes of the New York State Office of Real Property Tax Services (NYSORPTS). The following classifications are used by the NYSORPTS to identify the different land use types: Agricultural; Residential; Vacant Land; Commercial; Recreation and Entertainment; Community Services; Industrial; Public Services; and Wild, Forested, or Conservation Lands and Public Parks. For the Application, the land use will be further described and mapped based on site-specific investigations and documentation. To further define land uses on land classified by the NYSORPTS as Vacant Land within the Project Area, the Applicant will inquire about current uses of vacant land through coordination with participating landowners. A map of the existing vegetated cover showing crop lands, forested lands and other cover types is helpful in providing land use context as well (see Figure 4).

The Project Area is located in Seneca County Agricultural District 6 (SENE006). Existing agricultural uses within the Project Area consist of a mix of pasture, hay fields and cultivated crops. A review of the Natural Resources Conservation Service (NRCS) Web Soil Survey mapping indicates that of the 25 soil units mapped within the Project Area, three are designated as *prime farmland if drained*, five are designated as *farmland of statewide importance*, nine are designated as *all areas are prime farmland* and the remaining eight units are designated as *not prime farmland*. Mapping of these NRCS farmland designations will be included in Exhibit 21 Geology, Seismology and Soils of the Application.

The Application will include mapping of the Project Area with the various farmland classifications listed above and of mapped Agricultural Districts (see Figure 5) within the Project Study Area. The Application will also include a discussion describing how the siting, construction, and operation of the Project will avoid or otherwise minimize impacts, to the maximum extent practicable, to prime farmland, including a description of the proposed methods for soil stripping, storage and replacement upon the completion of construction, where disturbance to such areas cannot be avoided.

In addition to land use and agricultural maps, mapping of existing transmission facilities (e.g., electric, gas, or telecommunications) within the Study Area will be provided in the Application,

based upon publicly available information and consultations with the Host Municipality, local utilities, and DPS Staff.

Maps showing special designation areas such as mapped flood zones (see Figure 6), critical environmental areas, and recreational/sensitive areas will be prepared using up-to-date databases, such as the NYS GIS Clearinghouse and agency sources, and included in the Application. The Application will also include reference information for each source.

Parcels where Project components will be located, and those properties adjoining them, will be mapped to identify current land use, tax parcel number, and record of ownership. Additionally, any publicly known proposed land use plans for any of these parcels will be mapped using data from the Seneca County Department of Economic Development and Planning, as made available to the Applicant.

Mapping of parcels located within the Study Area will be shown on aerial photography in the Application. Aerial photography will also be overlaid with proposed Project facilities, access and maintenance roads, and limits of clearing, in order to show the relationship with existing structures and vegetation cover types. Aerial photography dates and sources will be included in the Application.

A review of the impacted municipalities was conducted to identify those with comprehensive plans. Both the host county (Seneca County) and the host municipality (Town of Waterloo) have existing comprehensive plans. The Town of Waterloo plan was adopted in 2017. It illustrates that the majority of surveyed participants have interest in alternative energy within the Town of Waterloo.

The Seneca County Comprehensive Plan was adopted in 2014, which lists enabling renewable energy production, including solar, as a strategy to achieve the goal of supporting businesses that strengthen and diversify the economic base. The plan states that “to manage rising energy costs, promote local economic development, and protect the natural environment, many local governments and property owners in NYS are looking at renewable energy resources to meet community energy demands” and that “Seneca County is committed to supporting renewable and sustainable energy sources.”



As further described in Sections (i), (j), and (k), a qualitative assessment of the Project's compatibility with existing, proposed, and allowed land uses will be presented in the Application. This assessment will include evaluation of the compatibility of the Project's above-ground structures, as well as any underground interconnections, with surrounding land uses.

The Application will also include a description of the community character in the Study Area, an analysis of impacts from the construction and operation of the Project on that community character, and proposed avoidance or mitigation measures that will minimize potential impacts on community character, to the maximum extent practicable, should any be identified.

### **Proposed Studies**

The Applicant proposes to collect, evaluate, and provide the following information to support and prepare Exhibit 4 of the Application in accordance with 16 NYCRR § 1001.4:

- (a) A scaled map showing Project facilities in relation to existing land uses within the Study Area (area within a two-mile radius from the Project Area boundaries) using publicly available data from the Seneca County Real Property Tax Office. The "Seneca County Parcel Data" data set, derived from the Property Class attribute, will be referenced to produce the scaled map. The Study Area includes approximately 17,625 acres (inclusive of the approximately 1,072-acre Project Area).
- (i) Land use classifications codes of the NYSORPTS will be used to inventory existing land uses within the Study Area. For the Application, the land use will be further discussed and mapped based on site-specific investigations and documentation. Land use types will be identified as:
  - 100 – Agricultural;
  - 200 – Residential;
  - 300 – Vacant Land (Vacant Land that is identified for Project facility locations and directly adjacent properties will be further broken down by usage [i.e. timber, pasturing, hunting etc.] based on input received from participating landowners);
  - 400 – Commercial;

- 500 – Recreation and Entertainment;
  - 600 – Community Services;
  - 700 – Industrial;
  - 800 – Public Services; and
  - 900 – Wild, Forested, or Conservation Lands and Public Parks.
- (b) In addition to land use maps, communications towers and existing overhead or underground lines for electric, gas or telecommunications companies will be mapped within the Study Area.
- (c) A scaled map of all properties upon which any component of the Project or the related facilities would be located, and all properties adjoining such properties that shows the current land use, tax parcel number and owner of record of each property, and any publicly known proposed land use plans for any of these parcels. The land use will be described and mapped based on site-specific investigations and documentation. To further define land uses on land classified by the NYSORPTS as Vacant Land within the Project Area, the Applicant will inquire about current land uses of current vacant land through coordination with the participating landowners.
- (d) A scaled map of existing and proposed zoning districts within the Study Area will be created by data obtained from local governments including a description of the permitted and prohibited uses within each zone.
- (e) A discussion of the Project's consistency with the Seneca County Comprehensive Plan dated 2014; the Town of Waterloo's Comprehensive Plan dated 2017, and the Seneca County Economic Development Strategy draft dated September 12, 2019. The Exhibit shall contain the addresses of the internet sites where the plans are posted.
- (f) A map of all publicly known proposed land uses within the Study Area, gleaned from interviews with state and local planning officials, from the public involvement process, or from other sources. A discussion of the cumulative impact of these publicly known existing and proposed land uses within the Study Area will be included.

- (g) Maps showing designated agricultural districts, flood-prone zones, and recreational/sensitive areas. Agricultural districts will be specified, as designated by New York State Department of Agriculture and Markets (NYSDAM) regulations. The Agricultural District discussion in the Application will indicate date of current Agricultural District enrollment and expiration/renewal date pending for each applicable parcel. Additional discussion of agricultural land will be included in Exhibit 22. Flood hazard areas will be specified according to data from the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps. There are no coastal areas, local waterfront revitalization program areas, State Environmental Quality Review Act (SEQRA) designated critical environmental areas, or groundwater management zones within the Study Area of the Project. However, Seneca Lake, a designated inland waterway, lies within the two-mile Study Area.
- (h) Scaled maps showing: (i) recreational and other land uses within the Study Area that might be affected by the sight, sound or odor of the construction or operation of the Project, interconnections and related facilities, including any wild, scenic and recreational river corridors, open space and any known archaeological, geologic, historical or scenic area, park, designated wilderness, forest preserve lands, scenic vistas, conservation easement lands, scenic byways designated by the federal or state governments, nature preserves, designated trails, and public-access fishing areas; (ii) major communication and utility uses and infrastructure; (iii) institutional, community and municipal uses and facilities; and (iv) a statement including a summary describing the nature of the probable environmental impacts and of construction and operation of the Project on such uses, including an identification of how such impacts are avoided or, if unavoidable, minimized or mitigated. Given the provisions of § 304 of the National Historic Preservation Act (NHPA), 9 NYCRR § 427.8, and § 15 of the PSL, information about the location, character, or ownership of a cultural resource shall not be disclosed to the public, and shall only be disclosed to the parties to a proceeding pursuant to an appropriate protective order if a determination is made that disclosure may: (1) cause a significant invasion of privacy, (2) risk harm to the affected cultural resource, or (3) impede the use of a traditional religious site by practitioners.

- (i) A qualitative assessment of the compatibility of the Project and any interconnection with existing, proposed and allowed land uses, and local and regional land use plans within a one-mile radius of the Project site and any interconnection route. The qualitative assessment shall include an evaluation of the short- and long-term effects of Project-generated noise, odor, traffic and visual impacts on the use and enjoyment of areas within one mile of Project facilities. The assessment will specifically address impacts to nearby land uses that may be of particular concern to the community such as residential areas, schools, civic facilities, recreational facilities, and commercial areas. If any known off-Site staging and/or storage areas will be used for Project construction, a qualitative assessment of the compatibility of the proposed off-Site staging and/or storage areas with existing, proposed and allowed land-uses will also be provided. Final locations of any off-Site staging areas will be confirmed in any required Compliance Filing, or filing with the Secretary, as applicable.
- (j) A qualitative assessment of the compatibility of proposed above-ground interconnections and related facilities with existing, potential, and proposed land uses within the Study Area.
- (k) A qualitative assessment of the compatibility of underground interconnections and related facilities with existing, potential, and proposed land uses within 300 feet from the centerline of such interconnections or related facilities.
- (l) The Project is not within a designated coastal area. Therefore, a demonstration of conformance with the Coastal Zone Management Act (CZMA) is not applicable and will not be included in the Application.
- (m) Aerial photographs will reflect the current situation and specify the source and date of the photography. To the extent that any material changes in land use have occurred since those photos were taken, the Applicant shall identify those changes in this Exhibit.
- (n) Overlays on aerial photographs which clearly identify the Project Area with all proposed Project facilities, access roads and limits of clearing, in order to show the relationships with existing structures and vegetation cover types.

- (o) Aerial photographs of all properties within the Study Area of such scale to provide detail, discrimination and identification of natural and cultural features. All aerial photographs shall indicate the photographer and the date photographs were taken.
- (p) A description of community character within the Study Area, an analysis of impacts of Project construction and operation on community character, and identification of avoidance or mitigation measures that will minimize adverse impacts on community character to the maximum extent practicable. For the purposes of this paragraph, community character includes defining features and interactions of the natural, built, and social environment, and how those features are used and appreciated in the community based on the Town of Waterloo and Seneca County Comprehensive Plans, as well as information obtained through PIP Plan activities. PIP Plan activities will continue after submission of the Application.
- (q) Photographic representations of the Project Area and the two-mile Study Area, as applicable, for the Project will be included to depict existing characteristics of the Project and surrounding area setting.
- (r) Mapping of the Project Area with farmland classifications (e.g. areas that are prime farmland, prime farmland if drained, etc.). Also, a discussion of how the Project will avoid or minimize, or mitigate, to the maximum extent practicable, impacts to agricultural soils with the “Prime Farmland” classification will be included. An analysis of the Prime Farmland, Prime Farmland if Drained, and Farmland of Statewide Importance to be occupied by solar components and the effects it would have on use of that land for future farming operations will also be included, as applicable.
- (s) Identification of farmland classifications located within the Project’s proposed limits of disturbance.
- (t) The Application will include a map of all publicly known proposed land uses within the Study Area, for which required permit applications have been filed with the appropriate permitting authority, from interviews with state and local planning officials, from the public involvement process, or from other sources. The potential

cumulative impact of these identified publicly known proposed land uses within the Study Area along with the Project on farmland will be discussed, as will farmland conversion trends over the past 20 years within the Study Area.

- (u) Agricultural impacts will be discussed relative to the goals of the Seneca County Agriculture and Farmland Protection Plan, duration of the Project, and agricultural viability in the Project's Study Area.
- (v) The Application will include a map of all publicly known existing and proposed land uses within the Study Area, gleaned from interviews with state and local planning officials, from the public involvement process, from landowners and local farmers, or from other sources. The cumulative impact of these identified publicly known existing and proposed land uses within the Study Area along with the Project on farmland will be discussed, as will farmland conversion trends over the past 20 years within the Study Area.
- (w) Agricultural impacts will be discussed relative to the goals of the Seneca County Agriculture and Farmland Protection Plan, the duration of the Project, and agricultural viability in the Project's Study Area.
- (x) The Application will include a discussion describing how the Project layout and construction and operation of the Project will avoid or otherwise minimize impacts, to the maximum extent practicable, to natural resources and existing land uses, including, without limitation, to Prime Farmland, including a discussion as to why it was not possible to avoid the Prime Farmland designated areas, a description of the proposed methods for soil stripping, storage and replacement upon the completion of construction, where disturbance to such areas cannot be avoided, as applicable.

### **3.05 Electric Systems Effects (Exhibit 5)**

A System Reliability Impact Study (SRIS) has been prepared for the Project by the New York Independent System Operator (NYISO). The SRIS evaluates a number of power flow base cases, as provided by the NYISO, including expected flows on the system under normal, peak, and emergency conditions to evaluate the effects on stability of the interconnection. Additionally, technical analyses of thermal, voltage, short circuit, and stability are being performed to evaluate the impact of interconnection. The SRIS will be included with the Article 10 Application but will be filed separately with a request for confidentiality as it contains Critical Energy Infrastructure Information in accordance with NYISO requirements.

The Application will describe the impact of the proposed Project on transmission system reliability in the State of New York in greater detail.

#### **Applicable Engineering Codes and Standards, Guidelines and Practices**

The Project and interconnection will be designed in accordance with applicable standards, codes, and guidelines. Such standards may include (but are not limited to):

- Rural Utilities Service (RUS) Bulletin 1724E-200;
- American National Standards Institute (ANSI);
- American Society of Civil Engineers (ASCE);
- American Society for Testing and Materials (ASTM);
- Building Code of New York;
- Institute of Electrical and Electronic Engineers (IEEE);
- National Electric Code (NEC);
- North American Electric Reliability Corporation (NERC);
- National Fire Protection Association (NFPA);
- Northeast Power Coordinating Council, Inc. (NPCC);
- New York State Reliability Council (NYSCR);
- Occupational Safety and Health Administration (OSHA); and
- Underwriters Laboratories.

The Application will describe which codes and standards are applicable to the Project, including interconnection components. The Application will also provide a description of the criteria, plans, and protocols for Project design, construction, commissioning, and operation.

### **Maintenance, Management, and Procedures**

Project commissioning will occur once the solar arrays and Project interconnections are fully constructed and the NYISO is ready to accept transmission of power to the New York grid. The commissioning activities are comprised of testing and inspecting the electrical, mechanical, and communications systems associated with the Project.

O&M of the Project will follow industry standard practices. The Project will always have on-call local technicians who can respond quickly if required. If an event outside the normal operating range of the Project occurs, the equipment will immediately and automatically shut down. A report will then be generated and received by the Applicant's Renewables Operations & Control Center (ROCC)/Fleet Performance and Diagnostic Center (FPDC) which is responsible for Project critical controls, responding to alarms, and other functions for the safe and reliable operation of the Project. The responsibilities of the ROCC/FPDC are described further below. The Project's O&M procedures will include Project maintenance and management plans, procedures and criteria addressing vegetation management, and Project inspection and maintenance. The Project's preliminary O&M procedures will be submitted with the Application.

Trelina Solar Energy Center O&M procedures will include monitoring of solar components and ancillary structures, environmental monitoring, quality control and assurance, technical training, and inspection of access/service road conditions. In addition to routine maintenance activities, additional tasks and/or unscheduled maintenance associated with solar arrays, electrical components, access/service roads, ancillary structures and the Project collection substation will be completed as needed.

O&M personnel will complete routine inspections of the solar arrays, access roads, revegetated areas, collection lines, and the collection substation to document Project conditions, compliance with any required certificate conditions, and identify any potential maintenance or improvement actions that may be needed. As previously mentioned, the POI switchyard and tapline will be transferred to NYSEG to own, maintain, and operate. During the



Applicant's inspections, environmental conditions throughout the Project Area will also be observed and recorded for evaluation of the effectiveness of restoration activities until site restoration has been completed. The Applicant will also perform periodic environmental audits to ensure compliance with all regulatory and permit conditions, generally every three years. Any findings are immediately resolved by on-Site staff and any positive operating procedures are also recorded and disseminated to other operating solar facilities.

In addition to inspections, an O&M schedule will be developed for inspections of all solar arrays. As part of these routine activities, the solar array components will be inspected, and the results recorded. All other existing solar structures and ancillary structures will also be inspected along with revegetated areas.

Specific schedules and frequency of routine O&M activities, Project inspections and anticipated preventative maintenance and/or additional periodic activities required for the safe, reliable, and efficient operation of the Project are being developed. Plans, specifications, maintenance recommendations, performance curves and any other manuals or documentation available for the selected solar arrays will be obtained from the manufacturer and maintained by O&M personnel for reference and troubleshooting.

In addition to on-Site O&M, as described above, Trelina Solar Energy Center will utilize a continuous 24/7 ROCC/FPDC that will be responsible for:

- Monitoring the solar facilities;
- Deploying technicians based on projected environmental conditions to optimize the Project; and
- Coordinating with a local system operator, as required.

The ROCC/FPDC also provides performance and reliability optimization through remote solar array operation and fault reset capability, the use of advanced real-time equipment performance statistical modeling for advanced diagnostics, benchmarking among similar components and replication of best practices across the fleet. The ROCC/FPDC is supported by technical subject matter experts in the equipment and technology.

It is anticipated that collection systems will be buried underground. In the event that overhead collection lines are required, vegetation control will be conducted in accordance with best management practices (BMPs), consistent with those adopted in past cases by the Siting Board and/or Public Service Commission (PSC), to provide safe operation and prevent damage to the line. The Application will provide the vegetation clearance requirements for the collection lines and the Project's Vegetation Management Plan will be submitted with the Application. This plan will describe the vegetation management practices for the array locations, collection lines and the collection substation, including inspection and treatment schedules, and environmental controls to avoid off-Site effects.

### **Proposed Studies**

The Applicant proposes to collect, evaluate, and provide the following information to support and prepare Exhibit 5 of the Application in accordance with 16 NYCRR § 1001.5:

- (a) A SRIS, performed in accordance with the open access transmission tariff of the NYISO approved by the Federal Energy Regulatory Commission (FERC), that shows expected flows on the system under normal, peak and emergency conditions and effects on stability of the interconnected system, including the necessary technical analyses (Thermal, Voltage, Short Circuit and Stability) to evaluate the impact of the interconnection. The study shall include proposed collection substation and interconnection facilities, as well as any other system upgrades required.
- (b) An evaluation of the potential significant impacts of the Project and its interconnection to transmission system reliability at a level of detail that reflects the magnitude of the impacts.
- (c) A discussion of the benefits and detriments of the Project on ancillary services and the electric transmission system, including impacts associated with reinforcements and new construction necessary as a result of the Project.
- (d) An analysis of any reasonable alternatives that would mitigate adverse reliability impacts and maintain voltage, stability, thermal limitations, and short circuit capability at adequate levels.

- (e) An estimate of the increase or decrease in the total transfer capacity across each affected interface, and if a forecasted reduction in transfer capability across affected interfaces violates reliability requirements, an evaluation of reasonable corrective measures that could be employed to mitigate or eliminate said reduction.
- (f) A description of criteria, plans, and protocols for generation and ancillary facilities design, construction, commissioning, and operation, including as appropriate to generation technology:
  - (i) Engineering codes, standards, guidelines, and practices that apply;
  - (ii) Generation facility type certification;
  - (iii) Procedures and controls for Project inspection, testing and commissioning; and
  - (iv) Maintenance and management plans, procedures, and criteria, including information on maintaining/mowing grasses under and between the panels and invasive species control measures.
- (g) The Project will not have a thermal component, and therefore, heat balance diagrams are not applicable and will not be included in the Application.
- (h) As part of the Project, the 115 kV switchyard and tap line will be transferred to NYSEG to own, maintain, and operate. Therefore, the Application will include:
  - (i) A statement concerning the 115 kV switchyard ownership. At this time, the Applicant anticipates the 115 kV switchyard will be transferred to NYSEG to own, maintain, and operate. NYSEG, the transmission owner, will control the operational and maintenance responsibilities of the 115 kV switchyard;
  - (ii) A statement that the substation-interconnection design will meet the transmission owner's requirements; and
  - (iii) A statement that the operational and maintenance responsibilities for the 115 kV switchyard will be performed by NYSEG.
- (i) Project maintenance and management plans, procedures, and criteria, specifically addressing the following topics:

- (i) Solar photovoltaic panel maintenance, safety inspections, and racking and mounting post integrity; and
- (ii) The proposed collection substation, line inspections, maintenance, and repairs, including:
  - vegetation clearance requirements;
  - vegetation management plans and procedures;
  - inspection and maintenance schedules;
  - notification and public relations for work in public right-of-way (ROW); and
  - minimization of interference with electric and communications distribution systems.
- (j) Vegetation management practices for the Project facilities, including collection lines and the collection substation, will be included in the Application, including management practices for danger trees (i.e., trees that, due to location and condition, are a particular threat to fall on and damage electrical equipment) around the collection substation, specifications for clearances, inspection and treatment schedules, and environmental controls to avoid off site effects.
- (k) A list of the criteria and procedures by which proposals for sharing above ground facilities with other utilities will be reviewed, if applicable.
- (l) A status report on equipment availability and expected delivery dates for major components including solar arrays, collection lines, collection substation, transformers, and related major equipment.
- (m) Solar energy generation facilities do not have blackstart capabilities; therefore, a description of the Project's black start capabilities is not applicable and will not be included in the Application.
- (n) An identification and demonstration of the degree of compliance with all relevant applicable reliability criteria of the Northeast Power Coordinating Council Inc., New York State Reliability Council, and the local interconnecting transmission utility.

These appropriate criteria will be identified in the SRIS or through consultation with DPS, NYISO, and the local transmission owner.



### **3.06 Wind Power Facilities (Exhibit 6)**

This requirement is not applicable to the Trelina Solar Energy Center, as there are no wind power facilities included in the proposed Project. Therefore, this information will not be included in the Application.





### **3.07 Natural Gas Power Facilities (Exhibit 7)**

This requirement is not applicable to the Trelina Solar Energy Center, as there are no natural gas power facilities included in the proposed Project. Therefore, this information will not be included in the Application.



### **3.08 Electric System Production Modeling (Exhibit 8)**

The analyses presented in this Exhibit of the Application will be developed using computer-based modeling tools (GE Energy Consulting's Multi-Area Production Simulation (GEMAPS), PROMOD or similar). The Applicant will consult with DPS Staff and the New York State Department of Environmental Conservation (NYSDEC) to develop acceptable input data for the simulation analyses. This data includes modeling for the proposed Trelina Solar Energy Center's output that will be used in calculating the projected emissions predicted to be displaced by the Project from other operating power generation facilities.

The Application will expand upon the fact that solar arrays generate electricity without combusting fuel or releasing pollutants into the atmosphere. The Application will also estimate the levels of sulfur dioxide (SO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>), and carbon dioxide (CO<sub>2</sub>) emissions in the region with and without the proposed Project.

In addition to calculations of approximated regional air emission levels with and without the proposed Project, the Application will estimate the annual prices representative of NYISO Zones within the Control Area of NYS with and without the proposed Project.

Additionally, the Application will provide the estimated capacity factor, the estimated monthly, on peak, shoulder, and off-peak MW output capability factors, and the estimated average annual and monthly production output in megawatt-hours (MWh) for the proposed Project. An estimated production curve and estimated production duration curve over an average year will be created and the effects of the Project will be estimated for the energy dispatch of existing resources and co-generation facilities.

#### **Proposed Studies**

The Applicant proposes to collect, evaluate, and provide the following information to support and prepare Exhibit 8 of the Application in accordance with 16 NYCRR § 1001.8:

- (a) The following analyses will be developed using GEMAPS, PROMOD or a similar computer-based modeling tool:

- (i) Estimated statewide and regional levels of SO<sub>2</sub>, NO<sub>x</sub> and CO<sub>2</sub> emissions, both with and without the proposed Project
  - (ii) Estimated minimum, maximum, and average annual spot prices representative of all NYISO Zones within the New York Control Area, both with and without the proposed Project
  - (iii) An estimated capacity factor for the Project
  - (iv) Estimated annual and monthly, on-peak, shoulder, and off-peak MW output capability factors for the Project
  - (v) Estimated average annual and monthly production output for the Project in MWhs
  - (vi) An estimated production curve for the Project over an average year
  - (vii) An estimated production duration curve for the Project over an average year
  - (viii) Estimated effects of the proposed Project on the energy dispatch of existing must-run resources, defined for this purpose as existing wind, hydroelectric and nuclear facilities, as well as co-generation facilities to the extent they are obligated to output their available energy because of their steam hosts
- (b) The Application will include digital copies of the inputs used in the simulations required in subdivision (a) of this Exhibit. The Applicant will seek the requisite protections for confidential information.

### **3.09 Applicable, Reasonable and Available Alternatives (Exhibit 9)**

Trelina Solar Energy Center has designed the Project to maximize solar output and to efficiently interconnect to the existing power transmission system in Seneca County, New York. The Project Area's key features, including existing open space, availability of land for lease, and proximity to existing electric transmission infrastructure with capacity available to deliver energy generated from the Project, positions it to best assist NYS in addressing the SEP, CES, CLCPA and other policies directed at meeting climate change goals and advancing the integration of renewable energy. Trelina Solar Energy Center, in accordance with 16 NYCRR § 1001.9, will include an identification, if any, of applicable, reasonable, and available alternative location sites for the proposed Project. The alternatives analysis will be limited to property under the Applicant's control (i.e., option, lease, or ownership) in accordance with 16 NYCRR § 1001.9(a).

The Project has been awarded a contract with NYSERDA to sell RECs generated by a 79.5 to 80 MW solar energy center at the proposed site. Therefore, the objective of the Project is to construct a solar energy generating Project that can produce 79.5 to 80 MW of renewable energy at the proposed site in furtherance of complying with the NYSERDA executed REC contract.

The location selected for the Project Area is a suitable area in New York for commercial scale solar energy production. Preliminary selection of solar energy center locations is driven by many essential operational factors, both technical and economical. Trelina Solar Energy Center selected the proposed Project Area based on availability of the solar resource, available land from willing landowners, the relative ease of accessing the Project Area (thus limiting unnecessary impacts), the relative ease of connecting to the existing electric transmission grid, and sufficient available capacity on the grid. Additional factors are compatible land use, topography, and avoidance of areas considered of high statewide significance or environmental sensitivity.

In addition, Project layouts are currently being evaluated by the Applicant and will continue to be refined throughout the Article 10 process with input from Project stakeholders, and based upon the results of key resource studies and environmental impacts assessments. A proposed

Project layout will be presented in the Application along with a discussion of any reasonable alternative layouts considered.

The Application will include discussions of the following other reasonable and available alternatives, as applicable:

- General arrangement and design
- Other solar technology
- Scale or magnitude
- The No Build Alternative

Alternative generating technologies such as wind and natural gas, or other sources such as transmission or demand-reducing alternatives, are not reasonable due to the award of the REC contract by NYSERDA to the Applicant for the construction and operation of a 79.5 to 80 MW solar Project at the proposed site.

### **Proposed Studies**

The Applicant proposes to collect, evaluate, and provide the following information to support and prepare Exhibit 9 of the Application in accordance with 16 NYCRR § 1001.9:

- (a) Given that the Applicant proposes to operate a private facility, the identification and description of applicable, reasonable, and available alternative location sites for the proposed Project, if any, will be limited to sites owned by or under option to the Applicant, as set out in 16 NYCRR § 1001.9(a).
- (b) For each applicable, reasonable, and available alternative location identified, if any, the Applicant will provide an evaluation of the comparative advantages and disadvantages of the proposed and alternative locations at a level of detail sufficient to permit a comparative assessment of the alternatives discussed considering:
  - (i) The environmental setting;
  - (ii) The recreational, cultural, and other concurrent uses that the site may serve;
  - (iii) Engineering feasibility and interconnections;

- (iv) Reliability and electric system effects;
  - (v) Environmental impacts, including an assessment of climate change impacts (whether proposed energy use contributes to global temperature increase), potential wildlife habitat, wetland, stream, and agricultural resource impacts;
  - (vi) Economic considerations;
  - (vii) Environmental justice considerations;
  - (viii) Security, public safety, and emergency planning considerations;
  - (ix) Public health considerations;
  - (x) The site's vulnerability to potential seismic disturbances and current and anticipated climate change impacts, such as sea-level rise, precipitation changes, and extreme weather events;
  - (xi) The objectives and capabilities of the Applicant; and
  - (xii) Agricultural use of land.
- (c) A description and evaluation of reasonable alternatives to the proposed Project at the primary proposed location including applicable, reasonable, and available alternatives regarding:
- (i) General arrangement and design including;
    - consideration of arrangements/design options that would enable some continued agricultural use of the Project Area;
    - consideration of alternative sites, designs or arrangements that would avoid or minimize impacts, to the maximum extent practicable, to wildlife and wildlife habitat, including but not limited to habitat fragmentation, disturbance and loss, and the displacement of wildlife from preferred habitat;
    - arrangements that would avoid or minimize impacts to waterbodies, wetlands, and streams, to the maximum extent practicable;
    - arrangement of inverters away from site property lines; and
    - consideration of alternative perimeter fencing designs that would minimize, to the maximum extent practicable, contrasts with adjacent land uses and visual character.

- (ii) Technology;
  - (iii) Scale or magnitude;
  - (iv) As the Project does not involve wind power facilities, alternative turbine layouts are not applicable to the Project; and
  - (v) Timing of the proposed in-service date for the Project in relation to other publicly known planned additions, withdrawals, or other capacity, transmission, or demand reduction changes to the electric system that would reasonably affect the Project.
- (d) A statement of the reasons why the proposed Project location is best suited, among other applicable, reasonable, and available alternative locations, if any, and measures to be submitted as part of the Application, to promote public health and welfare, including recreational, cultural and other concurrent uses which the site and affected areas may serve.
- (e) A statement of the advantages and disadvantages of the applicable, reasonable, and available alternatives and the reasons why the primary proposed design technology, scale or magnitude, and timing are best suited, among the applicable, reasonable, and available alternatives, to promote public health and welfare, including recreational, cultural and other concurrent uses that the site may serve.
- (f) A description and evaluation of the no action/no build alternative at the proposed Project location, including the reason why the proposed Project is better suited to promote public health and welfare, including recreational, cultural, and other concurrent uses that the site may serve.
- (g) An identification and description of reasonable alternate energy supplies will be limited to those that are feasible based on the objectives and capabilities of the Applicant (i.e., solar-powered electric generation). Accordingly, other fuel sources will not be addressed in the Application.



- (h) Due to the private nature of the Project, and the objectives and capabilities of the Applicant (i.e., solar-powered electric generation), transmission and demand-reducing alternatives will not be evaluated in the Application.
- (i) A statement of the reasons why the proposed Project is best suited, among the applicable, reasonable, and available alternatives to promote public health and welfare, including the recreational, cultural, and other concurrent uses which the site and affected areas may serve.
- (j) A discussion of potential impacts to vegetation associated with any alternative arrangements considered, and information regarding why alternative arrangements were not selected. Vegetation discussed will include, but will not be necessarily limited to, trees (saplings to mature), food and livestock feed producing crops, graze lands, and soil erosion prevention cover, as applicable.



### 3.10 Consistency with State Energy Planning Objectives (Exhibit 10)

New York Energy Law § 6-104 requires the New York State Energy Planning Board (NYSEPB) to adopt a SEP. The latest iteration of the New York SEP was announced on June 25, 2015. The 2015 SEP, along with the CES and CLCPA, contains a series of policy objectives and coordinates with New York's Reforming the Energy Vision (REV) initiative and its objectives to significantly reduce GHG emissions while stabilizing energy costs. As stated by the PSC in its 2015 REV Order, "(a) significant increase in the penetration of renewable resources is essential to meeting our objectives, state goals and proposed federal requirements."

REV, as a core initiative of the SEP, is guided by a set of five Guiding Principles, each of which is supported by the Trelina Solar Energy Center:

1. **Market Transformation:** With each new large renewable energy project, the local and regional supply chain is strengthened and expanded. The Project will help stimulate the local economy through direct and indirect spending and the demand for trained solar technicians.
2. **Community Engagement:** Trelina Solar Energy Center has been, and will continue to be, fully engaged with local and state stakeholders (as described in the PIP Plan).
3. **Private Sector Investment:** The Applicant is making a considerable capital investment to develop the Project.
4. **Innovation and Technology:** The Project will use state-of-the-art solar photovoltaic technology that has been developed to increase efficiency.
5. **Customer Value and Choice:** By increasing the amount of solar generated power available, the Project will allow customers greater choices in the types of electricity and the pricing they choose to utilize (SEP, 2015).

The SEP builds on the principles above with additional initiatives, goals, and targets. By adding 79.5 to 80 MW of clean, renewable solar power into the NYS energy market, the Project is consistent with the SEP and the CES adopted by the PSC pursuant to the SEP and, therefore, instrumental in meeting the New York 2030 Targets of:

- 40% reduction in GHG emissions from 1990 levels; and

- 50% of electricity generation from renewable energy sources.

As noted above, the CES was adopted pursuant to and is consistent with the goals and objectives of the current SEP. As part of the implementation of the CES, NYSERDA conducts competitive solicitations for renewable projects. This Project was awarded a contract by NYSERDA for the purchase of its RECs in a recent solicitation. Accordingly, the construction and operation of the Project is consistent with the Commission's CES and the SEP. The Project will also be consistent with the recently adopted CLCPA, which requires 70 percent, and then 100 percent, of the State's electric generation to come from carbon-free resources by 2030 and 2040, respectively, and establishes a State mandate for electric providers to procure at least 6 GW of solar generation by 2025.

The Project will also increase fuel diversity within NYS by increasing the amount of electricity produced by solar generation facilities. The New York electric utility system relies on supply from numerous fuel sources, including natural gas, hydroelectric, nuclear, wind, solar, oil, and some coal, as well as interconnections with neighboring states and demand-response resources. The Project is consistent with the SEP and other associated state policies and laws, which are designed to encourage the development of renewable energy projects and contribute to the transition of New York's energy markets. Immediate benefits from the Project would include economic development, jobs for the community, greater stability in consumer energy bills, and cleaner air, all of which are consistent with the SEP, CES, and CLCPA.

### **Proposed Studies**

The Applicant proposes to collect, evaluate, and provide the following information to support and prepare Exhibit 10 of the Application in accordance with 16 NYCRR § 1001.10:

- (a) A statement demonstrating the degree of consistency of the construction and operation of the Project with the energy policies and long-range energy planning objectives and strategies contained in the most recent SEP, and any publicly available draft new SEP including consideration of the information required by subdivisions (b) through (i) of 16 NYCRR § 1001.10.

- (b) A description of the impact the proposed Project would have on reliability in the State based upon the results of the SRIS; provided, however, this description may be submitted when the SRIS (being prepared as part of Exhibit 5) is submitted.
- (c) A description of the impact the proposed Project would have on fuel diversity in the State.
- (d) A description of the impact the proposed Project would have on regional requirements for capacity.
- (e) A description of the impact the proposed Project would have on electric transmission constraints.
- (f) The proposed Project will generate electricity without the use of fuel. Therefore, there will be no adverse fuel delivery impacts and this topic will not be addressed in the Application.
- (g) A description of the impact the proposed Project would have in relation to any other energy policy or long-range energy planning objective or strategy contained in the most recent SEP.
- (h) An analysis of the comparative advantages and disadvantages of applicable, reasonable, and available alternative locations or properties identified, if any, of which analysis will be limited to sites under option to the Applicant for the solar energy Project, as authorized by 16 NYCRR § 1001.9(a).
- (i) A statement of the reasons why the proposed Project location and source is best suited, among the applicable, reasonable, and available alternatives identified, if any, to promote public health and welfare, including minimizing, to the maximum extent practicable, the public health and environmental impacts related to climate change.



### **3.11 Preliminary Design Drawings (Exhibit 11)**

Drawings developed in support of the Application will be prepared using computer software, such as AutoCAD or MicroStation, under the direction of a professional engineer, landscape architect, or architect who is licensed and registered in the State of New York whose name will be clearly printed on the drawings. These drawings will be labeled “preliminary” and/or “not for construction purposes.” The Project will use common engineering scales for plotting full size drawings, as required, and the corresponding common engineering scales for half size sets. Trelina Solar Energy Center will provide DPS with the appropriately sized copies, in accordance with the Article 10 regulations, as well as AutoCAD or Microstation files of the engineering drawings.

As part of the Application, the Applicant will prepare a site plan, construction operations plan, grading and erosion control plans, a landscaping plan, and a lighting plan as specified in 16 NYCRR § 1001.11. The Application will include typical design details of all underground facilities and all overhead facilities, as applicable. The Project will also obtain coverage under the State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activity (GP-0-15-002, or SPDES General Permit in effect at the time of construction) and will comply with all requirements therein.

A lighting plan for Project facilities will detail any necessary safety lighting, as well as the type, location and height of proposed exterior lighting fixtures, and an indication of the measures to be taken to prevent unnecessary light trespass beyond the Project Area boundaries. The Application will also include manufacturer cut sheets of proposed light fixtures. The numbers and intensity of lighting fixtures will be kept to the minimum level necessary for worker safety. Measures such as down-shielding of fixtures to focus the lighting on work areas will be used to minimize any unnecessary light impacts beyond the immediate work area and Project Area. Manually activated lighting will also be used while maintenance activities are occurring.

The Application will also include a detailed list of engineering codes, standards, guidelines, and practices that Trelina Solar Energy Center intends to conform to during the planning, designing, construction, and operation of the Project, as applicable. The following is provided as a representative list of applicable codes and standards, which will be updated as needed in support of the Application:

- ANSI
- IEEE
- Insulated Cable Engineers Association (ICEA)
- American Society of Mechanical Engineers (ASME)
- NEC
- National Electrical Safety Code (NESC)
- National Electric Manufacturers Association (NEMA)
- NFPA
- Uniform Building Code (UBC)
- United Laboratories (UL)
- American Iron and Steel Institute
- American Institute of Steel Construction
- American Association of State Highway and Transportation Officials (AASHTO) Standard for Aggregates
- ASCE 7-10 Minimum Design Loads for Buildings and Other Structures
- Federal OSHA 1910.269
- American Concrete Institute (ACI)
- Building Code of NYS

### **Proposed Studies**

The Applicant proposes to collect, evaluate, and provide the following information to support and prepare Exhibit 11 of the Application in accordance with 16 NYCRR § 1001.11:

- (a) A site plan showing all structures, driveways, parking areas, emergency access lanes, access ways and other improvements at the Project Area, depicting the proposed site in relation to adjoining properties, and depicting the layout of on site facilities and ancillary features, as applicable. This plan will also include the number of circuits per proposed collection system route, the existing Substation and tap to Border City to Station 122 115 kV transmission line and any known existing transmission utilities and associated rights-of-way within the Project Area as well as laydown, staging, and equipment storage areas with associated access, setbacks, and parking. The distance of the proposed tap has yet to be determined but is anticipated to be a few hundred feet



or less and will be located within the Project Area. Additional drawings shall be included depicting the layout of all off site facilities and ancillary features, if applicable. There are currently no buildings, off site facilities, or sidewalks proposed. Site plans will also provide indication of property lines. Four full size copies of the preliminary design drawing set (using a common engineering scale) will be provided to DPS at the time of Application submittal, as applicable. Additionally, the Applicant will provide a Flash Drive Memory Stick containing AutoCAD drawing files, as applicable. The following specific features will be included on the Project Site plans and will be submitted with the Application:

- (i) Proposed solar panels and associated mounting features (any concrete pads, foundations, etc.), inverters, and any proposed meteorological stations
- (ii) Access road travel lanes
- (iii) Proposed grading (temporary grading for construction purposes and permanent contours for final grading)
- (iv) Electric cable collection lines and number of circuits per proposed electric cable route; overhead and underground cable routes will be differentiated with specific line-types
- (v) Approximate limits of disturbance for all Project components (panels, access roads, buildings, electric lines, substation, etc.)
- (vi) Clearing limits for all Project components (panels, access roads, buildings, electric lines, shading vegetation, etc.)
- (vii) Indication of off site permanent ROW and road crossings for electric cable installations
- (viii) Outline of collection and interconnection switchyard/substations, tap line including access driveway, setbacks, and fence line
- (ix) Proposed locations of electric cable installations for crossing of streams, waterbodies, roads, etc. and, where proposed, any proposed locations of such crossings that will use trenchless methods of installation, including the approximate laydown area (outline of approximate workspace needed) and approximate trenchless installation distances
- (x) Laydown, staging, and equipment storage areas including designated parking areas

- (xi) O&M facilities (if applicable) including access, parking areas, site maintenance shops or equipment storage areas, and the location of any proposed water supply and septic system(s)
  - (xii) Fencing and gates, including clearing associated with fencing
  - (xiii) Property lines and zoning setbacks
  - (xiv) Existing utility equipment locations and easement limits of those existing locations, including electric transmission and distribution lines, cable and telecommunication lines, and other features as applicable
  - (xv) Site security features, including perimeter fencing
- (b) A construction operations plan indicating all on site materials lay-down areas, construction preparation areas, major excavation, and soil storage areas, as applicable, and construction equipment and worker parking areas.
- (c) Grading and erosion control plan indicating soil types, depth to bedrock, general areas of cut and fill, retaining walls, initial and proposed contours, and permanent stormwater retention areas, as applicable (which will address both construction-phase and permanent installations).
- (d) A landscaping plan indicating areas of trees to be retained, removed, or restored; berms, walls, fences and other landscaping improvements, and areas for snow removal storage.
- (e) A lighting plan detailing the type, number and location of exterior lighting fixtures and indicating measures to be taken to prevent or mitigate, to the maximum extent practicable, unnecessary light trespass beyond the Project property line.
- (f) Architectural drawings, as applicable, including structure arrangements and exterior elevations for all structures (including collection substation and 115 kV switchyard tap line and interconnection equipment, and site security features, such as CCTV or other monitoring equipment support structures, as well as any O&M or other operational support buildings and structures, including retaining walls, and fences), indicating the length, width, height, material of construction, color and finish of all

buildings, structures, and fixed equipment and the type(s) of site perimeter fencing to be installed extensively around the Project.

- (g) Typical design detail drawings of all underground facilities indicating proposed depth and level of cover, and all overhead facilities indicating height above grade, including descriptions and preliminary specifications of all major components.
- (i) Plan and sections for all proposed layout schemes concerning underground collection line installations, as applicable, including:
  - Single and multiple-circuit layouts
  - Co-located installations with dimensions of proposed depth and level of cover
  - Separation requirements between circuits
  - Clearing width limits for construction
  - Operation of the facility, limits of disturbance, and required permanent ROW
- (ii) If overhead collection lines are deemed necessary, the following applicable information will be included on site plan drawings submitted with the Application:
  - Elevation plans for overhead facilities (collection and transmission lines) including height above grade, structure layouts, clearing width limits for construction and operation of the facility, and permanent ROW widths
  - Average span lengths for each proposed layout
  - Structure separation requirements (for installations containing more than one pole, etc.) for all single and multiple-circuit layouts
- (iii) Foundations (piers, etc., including dimensions) to be used for solar panel installations.
- (iv) A circuit map indicating overhead and underground installations, and number of required circuits proposed per collection line run.
- (v) Typical details associated with trenchless installations including typical staging areas, construction machinery arrangements, and bore pits.
- (vi) Technical data sheets associated with solar panels to be used for this Project.

- (h) For interconnection facilities, the plans and drawings required by subsections (a) through (g) of this exhibit for the proposed interconnection facilities and a profile of the centerline of the interconnection facilities at exaggerated vertical scale.
- (i) A list of engineering codes, standards (including the NESC), guidelines, and practices that the Applicant intends to conform with when planning, designing, constructing, operating, and maintaining the Project, electric collection system substation, and 115 kV switchyard and tap line, and associated structures, as applicable. These standards will include those of the ACI and the Building Code of NYS applicable to the Project.
- (j) All wetland boundaries will be included in the Application on maps, site plans, and shapefiles. Interpolated boundaries will be differentiated from field-delineated boundaries when displayed on maps, site plans, and shapefiles.
- (k) Site plan drawings, referenced in 11(a) above, at a scale of 1":100' (or similar) will depict all Project components, proposed grade changes, the limits of ground disturbance and vegetative clearing; and all field-delineated wetlands, predicted wetland boundaries and NYSDEC-regulated 100-foot adjacent areas located within 500 feet of all areas to be disturbed by construction.

### 3.12 Construction (Exhibit 12)

A preliminary Quality Assurance and Control Plan will be included in the Application. This plan will detail staffing positions and qualifications necessary to hold such positions and demonstrate the monitoring process for the Project. The Application will also include a statement from the Applicant confirming that all requirements for the protection of underground facilities contained in PSL § 119-b, as implemented by 16 NYCRR Part 753, as well as pole-numbering and marking requirements implemented by 16 NYCRR Part 217 (if determined to be required), will be met.

#### **Construction Activities**

Several activities must be completed prior to the proposed commercial operation date. The majority of the activities relate to equipment ordering lead-time, as well as design and construction of the Project. Below is a preliminary list of activities necessary to develop the Project. Pre-construction, construction, and post-construction activities for the proposed Project include, but are not limited to:

- Ordering all necessary components including solar photovoltaic panels, racking, mounting posts, and transformers;
- Completing surveys of properties, determining locations of all structures and roadways;
- Conducting soil borings, testing, and analyzing for proper foundation design and materials;
- Installing erosion and soil management measures required pursuant to the SPDES General Permit;
- Completing construction of access roads to be used for construction and maintenance;
- Constructing the collection lines (mostly underground, and if necessary, above ground);
- Designing and constructing the collection substation;
- Installing solar array mounting posts;
- Determining solar panel placement and setting;
- Acceptance testing of the Project; and
- Commencing commercial operation.

For construction, access roads are typically built to allow for the delivery of components. The access road will consist of an aggregate surface and will be adequate to support the size and

weight of maintenance vehicles. The specific solar array placement will determine the amount of access roads that will be constructed for the Project. During the construction phase, several types of light, medium, and heavy-duty construction vehicles will travel to and from the Project Area, as well as private vehicles used by construction personnel. The general area in which access roads will be located in a manner that mitigates environmental impacts to the maximum extent practicable will be presented in the Application. Detailed design and engineering information about final access roads will be presented as part of any required filing with the Secretary and/or Compliance Filing.

### **Construction Management**

While a yet to-be determined Engineering and Procurement Contractor(s) (EPC) will be tasked with constructing the Project, Trelina Solar Energy Center's construction managers will be on-Site overseeing the EPC contractor(s) and will ultimately be responsible for managing and constructing the Project. The EPC contractor(s) will undertake the following activities:

- Purchasing some material and equipment
- Scheduling execution of construction activities
- Obtaining construction labor

The contractor(s) also serves as key contact and interface for subcontractor coordination. The EPC contractor(s) will oversee the installation of collection lines as well as the proposed collection substation and POI switchyard. The contractor(s) will also install solar arrays, access roads, and the proposed collection substation and switchyard foundations, as well as coordinate materials receiving, inventory, and distribution. The Project will be constructed under the direct supervision of a NEER on-Site construction manager.

The construction team will be on-Site to handle materials purchasing, construction, quality control, testing, and start-up. Throughout the construction phase, ongoing coordination will occur between the project development and construction teams. The on-Site construction manager will help to coordinate all aspects of the proposed project, including ongoing communication with local officials. The Project construction sequence will include specific details relating to the implementation of Certificate requirements, including any approved BMPs and the requirements of the SPDES to avoid and/or mitigate impacts, to the maximum extent practicable, to sensitive natural resources, including wetlands, waterbodies, and flood

zones. Details and descriptions of proposed BMPs and other avoidance/mitigation measures will be provided in the Application.

Before the Project becomes fully operational, the O&M personnel will be integrated into the construction phase. The construction manager, the construction environmental compliance manager, and the O&M personnel manager will work together continuously to ensure a smooth transition from construction through solar array commissioning and operation.

### **Civil Works**

Completion of the Project will require various types of civil works and physical improvements to the land. These civil works may include the following:

- Clearing and grading for solar array installations, if determined necessary
- Installation of underground (and, if required, overhead) collection lines for connecting the solar arrays to the Project collection substation
- Installation of any Project Area fencing and security
- Restoration and re-vegetation of disturbed land when construction activities are completed

Additionally, the Application will include preliminary plans and descriptions indicating avoidance of interference with existing utilities, including gas, electric and communications infrastructure.

### **Commissioning**

The Project will be commissioned after completion of the construction phase. The Project will undergo detailed inspection and testing procedures prior to final commissioning. Inspection and testing will occur for each component of the system, as well as the communication system, high voltage collection system, and the supervisory control and data acquisition (SCADA) system.

### **Complaint Resolution**

Throughout the construction process and operations, Trelina Solar Energy Center will remain committed to addressing any comments, concerns or complaints brought forth by the public. If issues are identified by the public, they will be addressed through one formal Complaint

Resolution Plan which will be included as an appendix to the Application. The procedures will provide details on how complaints will be received, when these methods will be communicated to the public, the timeframe in which complaints will be responded to, steps to take when the complaints cannot be resolved by the Applicant, and how complaints will be recorded and tracked. The Applicant will make the Complaint Resolution Plan available to the public. The Applicant will make reasonable efforts to respond to all complaints from residents and businesses quickly and resolve complaints in a timely manner.

### **Proposed Studies**

The Applicant proposes to collect, evaluate, and provide the following information to support and prepare Exhibit 12 of the Application in accordance with 16 NYCRR § 1001.12:

- (a) Preliminary quality assurance and control procedures including staffing positions and qualifications necessary, demonstrating how the Applicant will monitor and assure conformance of Project installation with all applicable design, engineering, and installation standards and criteria.
- (b) A statement from a responsible company official that:
  - (i) The Applicant and its contractor(s) will conform to the requirements for protection of underground facilities contained in PSL § 119-b, as implemented by 16 NYCRR Part 753; and
  - (ii) The Applicant will comply with pole numbering and marking requirements, as implemented by 16 NYCRR Part 217 (if determined to be required).
- (c) Preliminary plans and descriptions indicating design, location and construction controls to avoid interference with existing utility transmission and distribution systems, indicating locations and typical separations of proposed facilities from existing electric, gas infrastructure (production or storage wells, pipelines, and related components), and communications infrastructure and measures to minimize interferences where avoidances cannot be reasonably achieved. If any existing gas pipelines are located in the Project Area, the following will be provided, to the extent available:



- (i) A review of publicly recorded easements associated with the pipelines
  - (ii) An indication of any publicly recorded restrictions associated with the easement for crossings and setbacks
  - (iii) Results of a consultation with the owner of the pipelines requesting specific information regarding crossings of Project component installations nearby the existing utility
  - (iv) To the extent provided upon written request of the Applicant, utility owner criteria for installations of Project components near the existing pipelines
  - (v) Descriptions of any potential studies required or recommended by the pipeline owners (along with an indication of timing of the studies)
  - (vi) Specific separation requirements or recommendations regarding specific Project components (collection lines, panels, etc.) in relation to the existing pipelines
  - (vii) Descriptions and typical details of any required or recommended protective features to be placed at crossings of or nearby the existing pipelines
  - (viii) Communications and coordination requirements of the pipeline Project owner-operators for construction within the pipeline ROW
- (d) Specification of commitments for addressing public complaints, and procedures for dispute resolution during Project construction and operation. The Complaint Resolution Plan shall identify and include any procedures or protocols that may be unique to each phase of the Project (e.g., construction, operation, decommissioning) or complaint type (e.g., noise). The Application will include a plan for maintaining a complaint log listing all complaints and resolutions during construction and operations of the Project and will include a procedure for review and transmittal of the complaint log to DPS staff.
- (e) A statement regarding how and when the Applicant will communicate with stakeholders about construction activities, schedule and applicable safety and security measures.



### 3.13 Real Property (Exhibit 13)

Trelina Solar Energy Center has entered into option-to-lease agreements for all parcels where Project components will be sited. Appropriate documentation supporting these actions, as available, will be included in the Application and redacted as necessary to protect confidential information. A statement demonstrating that the Applicant has or will obtain any additional rights deemed to be necessary to proceed with the Project will also be provided in the Application, if applicable.

A map of the Project facilities showing all property boundaries, owner and tax map information, easements, public and private roads, zoning, and related designations will be included in the Application.

#### **Proposed Studies**

The Applicant proposes to collect, evaluate, and provide the following information to support and prepare Exhibit 13 of the Application in accordance with 16 NYCRR § 1001.13:

- (a) A survey of the Project Area showing property boundaries with tax map sheet, block and lot numbers; the owner of record of all parcels included in the Project Area and for all adjacent properties; land rights, easements, grants and related encumbrances on the Project Area parcels; public and private roads on or adjoining or planned for use as access to the Project Area; zoning and related designations applicable to the Project Area and adjoining properties.
- (b) A property/ROW map of all proposed interconnection facilities and off-property/ROW access drives and construction lay-down or preparation areas for such interconnections, as applicable.
- (c) A demonstration that the Applicant has obtained title to or a leasehold interest in the Project Area, including ingress and egress access to a public street, or is under binding contract or option to obtain such title or leasehold interest, or can obtain such title or leasehold interest.

- (d) A statement that the Applicant has obtained, or can obtain, such deeds, easements, leases, licenses, or other real property rights or privileges as are necessary for all interconnections for the Project.
- (e) There are currently no improvement district extensions necessary for the Project. Therefore, this will not be included in the Application.

### **3.14 Cost of Facilities (Exhibit 14)**

The Application will provide an estimate of total capital costs associated with the Project for review by the Siting Board subject to applicable Article 10 regulations; however, certain information is considered proprietary and will be provided under separate cover and requested to be treated as trade secret and/or confidential commercial information under applicable regulations.

Costs identified will be estimates and will include the costs associated with development and permitting, solar arrays, the balance of Project equipment and engineering, and other costs necessary for interconnecting the Project to the New York bulk transmission system. Sources for these costs will be determined based on relevant industry experience building solar energy projects and estimated third-party vendor pricing.

#### **Proposed Studies**

The Applicant proposes to collect, evaluate, and provide the following information to support and prepare Exhibit 14 of the Application in accordance with 16 NYCRR § 1001.14:

- (a) A detailed estimate, as explained in (b) below, of the total capital costs of the proposed Project, including the costs associated with development and permitting, solar arrays, the balance of Project equipment and engineering, and other costs necessary for interconnecting the Project to the New York grid. However, this information is proprietary. Therefore, the Applicant will seek the requisite trade secret and/or confidential commercial information protection for this information pursuant to Public Officers Law (POL) § 87(2) (d) and 16 NYCRR § 6-1.3.
- (b) The cost estimate provided in subdivision (a) above will be based on the Applicant's knowledge of industry experience in building solar energy projects in the United States and estimated prices from third-party vendors associated with typical Project components.
- (c) Upon the demand of any party or of the DPS, the Applicant shall supply the work papers from which the estimates required by subdivision (a) were made, provided that demand is made in the form of a written request. However, this information is

proprietary and typically treated as trade secret and/or confidential commercial information. Therefore, the Applicant will seek the requisite trade secret and/or confidential commercial information protection for this information pursuant to POL § 87(2) (d) and 16 NYCRR § 6-1.3.

### **3.15 Public Health and Safety (Exhibit 15)**

The Project will not cause public health or safety concerns. Solar energy is considered to be one of the cleanest forms of electricity production. One of the greatest advantages of solar energy production is the maintenance of air quality without water consumption or wastewater discharges. Solar energy generates electricity without emitting pollutants. Solar energy technology allows for production of electricity without creating any gaseous, liquid, or solid wastes, and therefore eliminates the need to treat, collect, transport, and dispose of such waste in any significant amount. As described previously, and as will be discussed in the Application, the Project is consistent with the SEP, the CES, and the CLCPA.

The Project will not result in negative impacts to air quality. Depending upon the location of existing fossil fuel units, the Project may displace air pollutant emissions from existing generators. Exhibit 8 of the Application will address any expected reduction in air emissions. Any air emissions from the Project are limited to very minor levels during construction activities, resulting from construction equipment and vehicles, typical of large commercial construction sites. The only waste generated by the Project will be minimal amounts of solid waste generated during the construction phase. These materials may include small amounts of plastic, wood, cardboard, and metal packing materials, construction scrap, waste concrete from concrete truck washout, and general refuse, which will be properly recycled or disposed of at a nearby solid waste management facility in accordance with applicable regulations. The handling of wood waste from site clearing activities will also be addressed. In addition, small amounts of waste may be generated during routine maintenance activities (e.g., cardboard, cleaning rags and general refuse). Exhibit 15 of the Application will address how the waste materials will be properly recycled or disposed of at a nearby licensed landfill facility and will also address the specific local solid waste collection services, landfills, or transfer stations within the Project Area.

In accordance with the requirements of 16 NYCRR § 1001.15, the Application will include a summary of the review performed to evaluate potential significant adverse impacts on the environment, public health, and safety associated with construction and operation of the Project. Although not anticipated, the Application will present a plan for mitigation and monitoring activities to be employed should any potential impacts be identified that warrant continued monitoring.

The Project is not expected to produce any negative impacts to public or private water supplies. There will be no water withdrawal involved with operation of the Project. BMPs, such as erosion control measures (e.g., silt fence, hay bales) will be used during construction in order to avoid stormwater runoff to wetlands or waterbodies. The Application will include a proposed Stormwater Pollution Prevention Plan (SWPPP) describing these BMPs.

The Application will include maps, contacts and analysis showing the relation of the proposed Project Area to community emergency response resources and facilities including police, fire and emergency medical response facilities and plans, and hospitals. Community emergency response services for the Project Area and larger Study Area include:

- Town of Waterloo Volunteer Fire Department
- Border City Fire Department
- Geneva Fire Department
- Northside Fire Department
- Oaks Corners Fire Department
- North Seneca Emergency Medical Services (EMS)
- Seneca County Emergency Management Department
- Seneca County Sheriff's Office
- Ontario County Sheriff's Office
- NYS Police, Troop E

The Project is not anticipated to produce adverse impacts on any of the locations listed in 16 NYCRR § 1001.15(f), as will be documented in the Application. Mapping of the Study Area and analysis based upon publicly available information will be provided in the Application showing the relation of the Project Area to: public water supply resources; community emergency response features; emergency communications facilities; hospitals and emergency medical facilities; designated evacuation routes; existing known hazard risks including flood hazard zones, storm surge zones, areas of coastal erosion hazard, landslide hazard areas, areas of geologic, geomorphic or hydrologic hazard; dams, bridges and related infrastructure; explosive or flammable materials transportation or storage facilities; contaminated sites; and other local risk factors, should any be identified.



### **Proposed Studies**

The Applicant will prepare a statement and evaluation in the Application that identifies, describes, and discusses all potential significant adverse impacts of the construction and operation of the Project and related facilities on the environment, public health, and safety, at a level of detail that reflects the severity of the impacts and the reasonable likelihood of their occurrence and identifies the current applicable statutory and regulatory framework.

The Applicant proposes to collect, evaluate, and provide the following information to support and prepare Exhibit 15 of the Application in accordance with 16 NYCRR § 1001.15:

- (a) The anticipated gaseous, liquid, and solid wastes to be produced at the Project during construction and under representative operating conditions of the Project, including their source, anticipated volumes, composition and temperature, and such meteorological, hydrological, and other information needed to support such estimates. Studies referenced shall identify the author and date thereof, used in the foregoing analysis. This will also include consideration of waste wood generated during site clearing, including stumps and slash, and proposed methods to manage these materials.
- (b) The anticipated volumes of such wastes to be released to the environment during construction and under an operating condition of the Project. Thin-film solar cell technology is not being proposed. A manufacturer's specification sheet for the typical type of crystalline silicon solar panel to be used will be provided.
- (c) The treatment process to eliminate or minimize wastes to be released to the environment.
- (d) The manner of collection, handling, storage, transport, and disposal for wastes retained and not released at the site, or to be disposed of.
- (e) Impacts specific to wind-powered facilities will not be addressed in the Application as they are not applicable to the Project.

- (f) Maps of the Study Area and analysis showing relation of the proposed Project Area to public water supply resources; community emergency response resources and facilities including police, fire and emergency medical response facilities and plans; emergency communications facilities; hospitals and emergency medical facilities; designated evacuation routes; existing known hazard risks including flood hazard zones, storm surge zones, landslide hazard areas, areas of geologic, geomorphic or hydrologic hazard; dams, bridges and related infrastructure; explosive or flammable materials transportation or storage facilities; contaminated sites; and other local risk factors, should any be identified.
- (g) All significant impacts on the environment, public health, and safety associated with the information required to be identified pursuant to subdivisions (a) through (f) above, including all reasonably related short-term and long-term effects.
- (h) Any adverse impact on the environment, public health, and safety that cannot be avoided should the proposed Project be constructed and operated, and measures for monitoring and measuring such impacts, if applicable.
- (i) Any irreversible and irretrievable commitment of resources that would be involved in the construction and operation of the Project, if applicable.
- (j) Any measures proposed by the Applicant to minimize such impacts, as applicable.
- (k) Any measures proposed by the Applicant to mitigate or offset such impacts, if applicable.
- (l) Any monitoring of such impacts proposed by the Applicant, if applicable.
- (m) Should the Applicant choose to employ the use of herbicides or fertilizers, information will be provided in the Application identifying typical types used and the reasoning for their use.
- (n) In addition to the requirements outlined in subdivisions (a) through (l) above, the Applicant will perform receptor surveys using publicly available information and field visits to determine full-time and part-time residences in the vicinity of the Project Area

property boundaries to document whether there will be operational sound impacts to such residences as a result of the Project that exceed any applicable state or local standards.

- (o) A glare analysis will be prepared in accordance with the proposed study for Exhibit 24.



### **3.16 Pollution Control Facilities (Exhibit 16)**

The Project will not generate pollutants on any ongoing basis, nor require any pollution control facilities. Additionally, the Project will not use an emergency generator. Therefore, this requirement is not applicable to the Trelina Solar Energy Center and will not be included in the Application.



### **3.17 Air Emissions (Exhibit 17)**

Solar energy centers generate electricity without combusting fuel or releasing pollutants into the atmosphere. Once operational, the Project will produce electricity without emitting GHGs or other air pollutants. The Project will also not require the use of an emergency generator.

#### **Compliance with Applicable Federal, State, and Local Regulatory Requirements**

Solar facilities generate electricity without releasing pollutants into the atmosphere; therefore, the Project is not subject to the Environmental Protection Agency (EPA) New Source Performance Standards (NSPS), which regulate emissions of air pollutants from new stationary sources, and will not require air pollution control permits under the Clean Air Act (CAA) or NYS law or regulation.

Additionally, the Project will generate electricity without releasing SO<sub>2</sub> or NO<sub>x</sub>. As such, the Project is not subject to the requirements under the 1984 State Acid Deposition Control Act, which requires the reduction of sulfur dioxide (SO<sub>2</sub>) emissions from existing sources and nitrogen oxides (NO<sub>x</sub>) emission controls on new sources in NYS. SO<sub>2</sub> and NO<sub>x</sub> in the atmosphere are the primary causes of acid rain.

#### **Emissions by Combustion Sources Table**

The table required by 16 NYCRR § 1001.17(c) summarizing the rate and amount of emissions by combustion sources is not applicable to the Project and will not be included in the Application. This exclusion is due to the fact that solar generation facilities generate electricity without combusting fuel or releasing pollutants into the atmosphere.

#### **Potential Impacts to Ambient Air Quality**

The operation of the Project is anticipated to have a positive impact on air quality by producing electricity with zero emissions. The operation of the Project is expected to offset air emissions from other sources of electrical generation such as fossil fuel-powered generation plants. Since solar facilities generate electricity without combusting fuel or releasing pollutants into the atmosphere, the specific requirements of 16 NYCRR § 1001.17(d) pertaining to pollutant emissions are not applicable to the proposed Project and will not be included in the Application.

Potential temporary impacts to ambient air quality resulting from the construction of the Project, typical of a commercial construction project, will be discussed in the Application. Such impacts could occur as a result of emissions from engine exhaust and from the generation of fugitive dust during earth moving activities and travel on unpaved roads. The increased dust and emissions will not be of a magnitude or duration that will significantly impact local air quality during the approximately 9 to 12 months of Project construction. These impacts will be mitigated to the maximum extent practicable through the use of BMPs such as:

- Use of ultra-low sulfur diesel fuel in all diesel engines;
- Proper maintenance of all manufacturer-supplied air pollution control equipment on all engines;
- Minimization of diesel idling time whenever possible; and
- Use of dust and erosion control measures consistent with NYSDEC's New York State Standards and Specifications for Erosion and Sediment Control (SSESC), such as spraying access roads with water as necessary (NYSDEC, 2016).

#### **Off-Site Consequence Analysis for Ammonia Stored On-Site**

No ammonia will be stored on-Site during Project construction or operation. Therefore, the off-Site consequence analysis required by 16 NYCRR § 1001.17(e) is not applicable to the Project and will not be included in the Application.

#### **Proposed Studies**

Exhibit 17 of the Application will contain a discussion on potential temporary impacts to ambient air quality resulting from the construction of the Project, typical of a commercial construction project. Such impacts could occur as a result of emissions from engine exhaust and from the generation of fugitive dust during earth moving activities, and travel on unpaved roads. There will be no back-up generator installed for operation of the Project. An identification of appropriate control and mitigation measures to minimize potential adverse impacts will be provided.

The Applicant proposes to collect, evaluate, and provide the following information to support and prepare Exhibit 17 of the Application in accordance with 16 NYCRR § 1001.17:



- (a) The inapplicability of the Project's compliance with federal, state, and local regulatory requirements regarding air emissions.



### **3.18 Safety and Security (Exhibit 18)**

In order to ensure security and safety, an early-development safety plan with a safety tailboard form, construction safety plan, and an operations safety plan will be provided in the Application to help identify the precautions that will be taken in regard to safety relative to the survey, design, layout, construction and operations of the Project. In addition, safety measures are currently employed for all development site-related activities, such as environmental and cultural surveys, land surveys, micro-siting, etc.

The construction contractor will be required to provide a site security plan for Project construction, which will be developed by the contractor selected to lead the construction of the Project (i.e., EPC contractor). Preparation of the site security plan will initiate immediately following selection of the EPC contractor. The site security plan will be provided to the Siting Board as part of any required compliance filing or filed with the Secretary. Measures to ensure safety and security during construction may include (but are not limited to) installing fencing around the construction laydown yard, locking gates to the yard during off-work hours, and posting signs notifying the public of active construction sites. A series of traffic-related signs and road safety measures will also be put in place to help ensure safe driving conditions for the public and Project construction workers. This traffic management plan will be developed for the Project in consultation with local officials and submitted as part of any required compliance filing or filed with the Secretary. The Applicant will communicate with stakeholders within the Project Area (and surrounding Study Area) to ensure their awareness of construction activities and the applicable safety and security measures.

Nearly all construction will take place on private property, reducing access to general public traffic. Primary access controls for ensuring public safety during both construction and operation includes design setbacks, security fencing, and locked access to the Project Area, proposed collection substation, and POI switchyard which functions to restrict public access to the facilities.

Exhibit 18 of the Application will also describe the purposes, equipment and planned usage for the various lighting fixtures that will be necessary for Project construction and operation. During construction, this includes security lighting which will both ensure safe on-Site worker activity and serve to minimize trespassing. Security lighting will be focused downward in order to

minimize any impacts to wildlife or visual receptors. Manually activated lighting will also be used while maintenance activities are occurring. In general, lighting will be the minimum levels needed to accomplish the purpose and will only be used when necessary. Certain electronic security controls and surveillance systems may also be implemented.

With regards to cybersecurity of the Project's digital networks and communication systems, the Applicant will comply with the NERC Critical Infrastructure Protection (CIP) standards. The Applicant will use a Project that is compliant with the necessary NERC CIP standards. All firewalls and servers are monitored 24 hours a day, seven days a week by a Security Operations Center and all employees are required to complete training in information security awareness.

In addition to these preliminary plans, Trelina Solar Energy Center will implement an emergency response plan (ERP). This plan will outline the contingencies that would constitute a safety or security emergency, the appropriate response measures to be taken as a result of the emergency, any evacuation control measures that may be necessary, and the means by which the community will be notified of the emergency and any procedures that shall be followed. In addition, any on-Site equipment and system information will be provided to the appropriate emergency response agencies, including the local fire and police departments. The local entities, all on-Site equipment, and any on-Site safety control measures (i.e., fire extinguishers and their locations) will be included in the Draft ERP, which will be submitted with the Application.

### **Proposed Studies**

The Applicant proposes to collect, evaluate, and provide the following information to support and prepare Exhibit 18 of the Application in accordance with 16 NYCRR § 1001.18:

- (a) A preliminary plan for site security of the proposed Project during construction of such Project, including site plans and descriptions of the following site security features (if circumstances dictate their use):
  - (i) Access controls including fences, gates, bollards, and other structural limitations
  - (ii) Electronic security and surveillance facilities

- (iii) Security lighting, including specifications for lighting and controls to address work-site safety requirements and to avoid off site light trespass
  - (iv) Setback considerations for Project components which may present hazards to public safety
- (b) A preliminary plan for site security of the proposed Project during operation of such Project, including site plans and descriptions of the following site security features, including consideration of local zoning and land use regulations for fence-line setbacks and security fencing design requirements (if circumstances dictate their use):
  - (i) Access controls including fences, gates, bollards, and other structural limitations
  - (ii) Electronic security and surveillance facilities
  - (iii) Security lighting, including specifications for lighting and controls to address work-site safety requirements and to avoid off site light trespass
  - (iv) Lighting of Project components to ensure aircraft safety
  - (v) Setback considerations for Project components which may present hazards to public safety, as well as setback considerations with respect to wildlife and habitats as presented in Exhibit 22
  - (vi) A description of a cyber-security program for the protection of digital computer and communication systems and networks that support the Project demonstrating compliance with current standards issued by a standards setting body generally recognized in the information technology industry, including, but not limited to, the Federal Department of Commerce's National Institute of Standards and Technology (NIST), the NERC, or the International Organization for Standardization (ISO), and providing for periodic validation of compliance with the applicable standard by an independent auditor
- (c) A preliminary response plan to ensure the safety and security of the local community, including:
  - (i) An identification of contingencies that would constitute a safety or security emergency;

- (ii) Emergency response measures by contingency;
  - (iii) Evacuation control measures by contingency; and
  - (iv) Community notification procedures by contingency. These procedures will include a detailed description of the stakeholders included in the communication/notification efforts, the timeframes for notification, and the planned communication methods (e.g. letter, doorhangers, electronic mail, text, telephone calls, etc.). Mandatory plans for how these communications will be tracked and reported in a log to DPS Staff will be identified and discussed in the Application.
- (d) A statement that the Applicant will provide a copy of the plans required in subdivisions (a), (b), and (c) of this Exhibit to, and request review of such plans and comment by, the New York State Division of Homeland Security and Emergency Services (DHSES).
- (e) This Project is not located within any part of a city with a population over one million, therefore this section of the Exhibit 18 regulation is not applicable.
- (f) A description of all on site equipment and systems to be provided to prevent or handle fire emergencies and hazardous substance incidents.
- (g) A description of all contingency plans to be implemented in response to the occurrence of a fire emergency or a hazardous substance incident will be provided in the Application. Relevant on-site equipment and system information will be provided to the appropriate emergency response agencies, including the local fire and police departments. The local entities, all on-site equipment, and any on-site safety control measures (i.e., fire extinguishers and their locations) will be included in the ERP, which will be submitted with the Application. Local fire, police, and emergency response agencies will be consulted to review the draft ERP and preliminary plans.
- (h) A statement that the Applicant will consult with the Seneca County Emergency Management Office and the Waterloo and Border City Volunteer Fire Departments during the development of the ERP. The Applicant will provide a copy

of the plans required in subdivision (c) of this Exhibit, and request review of such plans and comment by the NYS Division of Homeland Security as well as local emergency first responders serving the Project Area, and a review by the Applicant of any responses received.

- (i) The ERP will outline the contingencies that would constitute a safety or security emergency, the appropriate response measures to be taken as a result of this emergency, any evacuation control measures that may be necessary, and the means by which the community will be notified of the emergency and any procedures that shall be followed.
- (j) The Applicant will identify the first responders/emergency services that will be consulted during the development of the ERP and those identified will receive copies of the final site plan.
- (k) The Application will address how the Applicant will provide information and training to the local emergency response organizations, including the Waterloo and Border City Volunteer Fire Departments and the Seneca County Emergency Management Office, to instruct such entities on how to respond to emergencies that occur on, near, or as a result of the operation of the solar Project.





### 3.19 Noise and Vibration (Exhibit 19)

A benefit of solar energy centers is that they generate electricity without the use of major sound emitting sources. Sound emitting sources associated with the operation of the Project are limited to the inverters and the transformer(s) associated with the proposed collection substation and POI switchyard. The inverters are used to convert locally generated direct current (DC) current into alternating current (AC) power that is then routed to the collection substation through underground collector cables. Inverters are generally considered a low-level source of noise and will be located among the arrays, away from the boundary of the Project Area. Additionally, they only produce sound while converting DC current into AC power and, therefore, the minimal sound emitted from the inverters will only occur during daylight hours. Additionally, the collection substation and POI switchyard will be sited away from sensitive sound receptors to the maximum extent practicable to avoid potential sound impacts from transformers.

In accordance with the requirements of 16 NYCRR § 1001.19, a noise impact assessment (NIA) will be conducted to determine existing environmental sound levels within the Project Area, the expected operational sound levels from the Project, and how they compare to pre-construction levels and applicable local or state noise standards. Components of the assessment include the mapping of potentially sensitive noise receptors, field measurements of current sound levels, an analysis of construction sound levels, the modeling of operational sound emissions and the determination of the various statistical quantities detailed in 16 NYCRR § 1001.19(f).

The field work and subsequent analyses will be carried out by a reputable acoustical engineering firm that has specialized in noise assessments for power generation projects. The acoustical engineering firm's qualifications and relevant experience will be included in the Application.

Two surveys of existing background sound levels will be undertaken to evaluate the possibility of seasonal/vegetation variation, one with leaf-on (i.e., summertime) conditions and one with leaf-off (i.e., wintertime) conditions. Exhibit 19 of the Application will include a report summarizing the noise expert's assessment of the ambient noise environment, using the sound data collected on-Site during the leaf-on and leaf-off monitoring periods. Ambient pre-

construction noise monitoring locations were determined based upon proximity of residences to solar arrays, variation in existing noise sources, and site access.

A map of the Project Area showing the location of sensitive sound receptors in relation to the Project, including the collection substation and POI switchyard will be included in the Application. A desktop analysis using aerial imagery and field verification will be used to preliminarily identify and classify sensitive sound receptors within the Project Area. If access for field verification is not possible and aerial imagery cannot provide an obvious classification of a structure (i.e., residential vs. non-residential), the structure will be assumed to be a sensitive sound receptor. The sensitive sound receptors shown will include residences, outdoor public facilities and areas, hospitals, places of worship, and schools.

### **Construction and Operation Noise**

Project construction will require the operation of heavy equipment for activities such as clearing, grading, access road construction, material and component delivery, installation of electrical interconnect, solar array construction, and site restoration. It is expected that Project-related construction noise will be similar to that of typical road or utility construction projects. Construction noise may be audible on a temporary basis at residences close to solar array locations, trenching operations or access road building activities. These temporary impacts are likely to go unnoticed in many areas because of the remote location of many construction activities due to required setbacks from roads and residences. An analysis will be performed to quantify these construction-related sound levels.

Impacts during operations from low frequency noise or tones are not expected to be significant. As part of the Application, analyses will be carried out to tabulate the A-weighted broadband and low frequency whole octave band (31.5 Hz, 63 Hz and 125 Hz) sound levels at all Project receptors. Sound level impacts from the Project at frequencies below 31.5 Hz may be calculated at the most potentially impacted and representative sensitive receptors if sound level data is available.

As described above, both leaf-on (i.e., summertime) and leaf-off (i.e., wintertime) surveys of existing environmental sound levels will be conducted. The specified statistical parameters for background noise ( $L_{90}$ ,  $L_{50}$  and  $L_{eq}$ ) will be measured in both surveys and compared with model predictions of Project noise associated with the proposed Project layout, once defined. At least

three 1/3 octave band frequency analyzers will be used as sound monitors to record the frequency spectrum of the existing sound levels. At least five total measurement positions, distributed over the Project Area, will be used to evaluate potential geographic variability in sound level within the Project Area.

### **Complaint Resolution**

Throughout the construction process and operations, Trelina Solar Energy Center will remain committed to addressing any comments, concerns or complaints brought forth by the public. If issues are identified by the public, they will be addressed through the Applicant's formal Complaint Resolution Plan which will be included as an appendix in the Application. The procedures will provide details on how complaints will be received, when these methods will be communicated to the public, the timeframe in which complaints will be responded to, steps to take when the complaints cannot be resolved by the Applicant, and how complaints will be recorded and tracked. The Applicant shall make the Complaint Resolution Plan available to the public. The Applicant will make reasonable efforts to respond to all complaints from residents and businesses quickly and resolve complaints in a timely manner.

### **Avoidance and Minimization Measures**

Planned measures to avoid or mitigate, to the maximum extent practical, the noise impacts from the Project include the following:

- Limiting construction activities to certain days (Monday through Saturday) and hours unless otherwise granted the applicable approval
- Optimizing the overall layout to maximize, to the extent practicable, distances from potentially sensitive receptors

### **Proposed Studies**

Exhibit 19 of the Application shall contain a study of the potential noise impacts of the construction and operation of the Project. The study will include the solar arrays, related facilities, and ancillary equipment, including the proposed collection substation and 115 kV switchyard. The name and qualifications to perform such analyses of the preparer of the study shall be stated. If the results of the study are certified in any manner by a member of a relevant professional society, the details of such certification shall be stated. If any noise assessment

methodology standards are applied in the preparation of the study, an identification and description of such standards shall be stated.

The Applicant proposes to collect, evaluate, and provide the following information to support and prepare Exhibit 19 of the Application in accordance with 16 NYCRR § 1001.19:

- (a) A map of the study area in digital format showing the location of sensitive receptors within 0.25-mile of the Project Area, in relation to the proposed Project, related proposed facilities, ancillary equipment including the collection substation and 115 kV switchyard. The sensitive receptors shown shall include residences (including participating, non-participating, full-time, and seasonal), outdoor public facilities and areas, state forest lands, places of worship, hospitals, schools, cemeteries, campsites, summer camps, Public Parks, federal and NY State Lands and other noise-sensitive receptors, if identified. Seasonal receptors will include, at a minimum, cabins and hunting camps, identified by property tax codes and any other seasonal residences with septic systems/running water.
- (b) An evaluation of ambient pre-construction baseline noise conditions will include:
  - (i) A-weighted/dBA sound levels and prominent discrete (pure) tones, at representative potentially impacted noise receptors using actual measurement data recorded in winter and summer and during day and night as a function of time and frequency (frequency data will include one-third octave bands from 20 Hertz (Hz) up to 10,000 Hz) using a suitable and suitably calibrated sound level meter (SLM) and octave band frequency spectrum analyzer or similar equipment;
  - (ii) The ambient pre-construction baseline sound level will be filtered to exclude seasonal and intermittent noise;
  - (iii) The pre-construction ambient sound levels will be evaluated in accordance with the requirements of these exhibits and applicable portions of ANSI Standards S12.100-2014 and S12.9 Part 2-1992 R-2013. These methods and standards will be described in the Pre-Construction Noise Impact Assessment (PNIA) and summarized in Exhibit 19 of the Application;
  - (iv) Graphical timelines for the A-weighted Leq and the L90 broadband noise levels for each pre-construction sound measurement location will be included in the Application;
  - (v) Figures for the un-weighted Leq and the L90 full-octave band noise levels (after

- exclusions, starting at the 16 Hz full octave band or 12.5 one-third octave band) for each pre-construction measurement location will also be included;
- (vi) The Application will describe how the pre-construction ambient surveys were conducted including specifications for sound instrumentation and weather meters, calibration, settings, positions that were tested, noise descriptors collected, range of sound frequencies evaluated, weather conditions, testing conditions to be excluded, schedules and time frames, testing methodologies and procedures, provisions for evaluation of existing tones and sounds with strong low frequency noise content, if any;
  - (vii) Measurement locations will include global positioning system (GPS) coordinates of the sound microphones and annual average daily traffic (AADT) information of the nearest road, to the extent the data is available from the County and/or New York State Department of Transportation (NYSDOT). The Application will include a justification for location selection and specify whether selected locations are representative of potentially impacted receptors;
  - (viii) The seasonal noise will be filtered by using the process specified in ANSI/Acoustical Society of America (ASA) S12.100-2014. The intermittent noise will be filtered by reporting the L90. Each sound collection will be conducted for a minimum of 7 consecutive days;
  - (ix) Temporal accuracy of the ambient data will be calculated to a 95 percent confidence interval using the technique in Section 9 of ANSI S12.9-1992/Part 2 (R2013) or any other applicable statistical procedure as appropriate for the Leq and the L90 noise descriptors;
  - (x) The sound instrumentation for ambient sound surveys will comply with the following standards: ANSI S1.43-1997 (R March 16, 2007). Specifications for Integrating-Averaging Sound Level Meters; ANSI S1.11-2004 (R June 15, 2009) Specification for Octave-Band Analog and Digital Filters, and ANSI S1.40-2006 (R October 27, 2011) (Revision of ANSI 1.40-1984) Specifications and Verification Procedures for Sound Calibrators; and
  - (xi) Data collected out of the range of operation of the sound instrumentation will be excluded. Sound data collected at wind speed exceeding 5 meters per second (11 miles per hour) at the sound microphone or portable weather station heights will also be excluded. Pre-construction sound level data collected during periods of rain, thunderstorms and snowstorms will also not be used in the calculation of background sound levels. These exclusions will be indicated on the graphs specified in this section.

New York State Mesonet data from the most representative station may be used to supplement the weather dataset for sound monitoring periods.

- (c) An evaluation of future noise levels during construction of the proposed Project, proposed related facilities and proposed ancillary equipment, including predicted A-weighted sound levels at various distances and at proximate potentially impacted and representative sensitive receptors will be performed using the Federal Highway Administration (FHWA) Roadway Construction Noise Model (RCNM), or a 3-D computer propagation model or similar. Information will include predicted sound levels at the nearest sensitive receptor(s) around the collection substation, including the loudest pieces of equipment for the different phases of construction. By its very nature, construction equipment typically moves around the site. For construction sound level impacts, a “table of sound levels vs. distances” will be presented. The construction analysis will include a table indicating the actual distances from expected construction activity to residences around the Project Area. This will provide construction sound levels at residences that will be compared to measured existing sound levels. This section will include a discussion of time frames for construction activities indicating seasons of the year, days of the week, hours of the day, and whether construction activities will be performed during evening time (6:00 p.m. to 10 p.m.), nighttime (after 10:00 p.m. or before 7:00 a.m.), weekends or national holidays.
- (d) Future sound levels from the Project will be calculated with the Cadna/A computer software or similar software that uses the ISO 9613-2 standard.
  - (i) For the purposes of this Exhibit the term “ISO-9613-2” will refer to the ISO 9613-2:1996 Standard or equivalently the ANSI/ASA S12.62-2012/ISO 9613-2:1996 (Modified) Standard with no meteorological correction (C<sub>met</sub>) or equivalently with the meteorological correction C<sub>met</sub> equaled to a value of zero.
  - (ii) The Cadna/A model performs calculations for full octave bands from 31.5 Hertz (Hz) to 8,000 Hz.
  - (iii) Computer noise modelling will be performed at a minimum for the Project equipment with the highest Broadband A-weighted sound power level (Maximum dBA sound power level).
  - (iv) The Application will include a discussion and justification for ground absorption “G” values that will be used for sound propagation over land.

- (v) The predicted sound levels from ISO 9613-2 will be reported for sensitive receptors in tabular format and shown at sensitive receptors and external property boundaries through graphical isolines of A-weighted decibels. Contours will start at 30 dBA, shown in 1-dBA increments. Noise contours representing sound levels in multiples of 5 dBA will be differentiated.
  - (vi) Participating, developed, and, undeveloped (vacant) non-participating properties will be differentiated. Only properties that have a signed contract with the Applicant as of the date of filing the Application will be identified as “participating”.
  - (vii) A temperature of 10 degrees Celsius and 70 percent relative humidity will be used to calculate atmospheric absorption for the ISO 9613-2 model. These conditions result in the smallest reduction in sound levels caused by air absorption at the key frequencies for A-weighted sound levels.
  - (viii) The Application will include a brief discussion about the accuracy of selected outdoor propagation models, methodologies, ground absorption values, assumptions and the correlation between measurements and predictions for documented cases as compared to other alternatives, as available.
  - (ix) The model will also include relevant noise sources from the proposed collection substation and 115 kV switchyard facilities, and proposed ancillary equipment. No emergency generators are proposed for the Project.
  - (x) A ground absorption factor, G, of zero ( $G=0$ ) will be used to represent significant waterbodies.
- (e) An evaluation of future noise levels predicted during operation of the Project, related facilities and ancillary equipment including:
- (i) Modeled A-weighted/dBA sound levels at all sensitive receptors;
  - (ii) A discussion of whether a tonal condition is possible from the substation or inverters. The “prominent discrete tone” constant level differences (Kt) in ANSI S12.9-2013/Part 3 Annex B, Section B.1, will be used to evaluate tones at the nearest 10 potentially impacted and representative noise receptors using spreadsheet calculations if one-third octave band data information is available;
  - (iii) Amplitude modulation is not an issue with solar projects and will not be included in the Application; and
  - (iv) Infrasound and low-frequency sounds:

- Low frequency sounds for the full-octave bands equal to and greater than 31.5 Hz will be evaluated at all the sensitive receptors as listed in Section (a) of this Exhibit. The number of receptors with SPL's equal to and greater than 65 dB will be reported.
  - Infrasound is not an issue for solar projects and will not be included in the Application.
- (f) The A-weighted/dBA sound levels, in tabular form for each sensitive location and in graphical form at external property boundary lines, will be calculated. The tables will include the following:
- (i) The daytime ambient noise level will be calculated from leaf on (i.e., summertime) and leaf off (i.e., wintertime) background sound level monitoring data. This will be equal to the L90 of sound levels measured during the daytime at each of the monitoring locations. Daytime will be 15 hours (7 a.m. – 10 p.m.).
  - (ii) The leaf on (i.e., summertime) nighttime ambient noise level will be calculated from summer background sound level monitoring data. This will be equal to the L90 of sound levels measured at night, during leaf on conditions at each of the monitoring locations. Nighttime will be 9 hours (10 p.m. – 7 a.m.).
  - (iii) The leaf off (i.e., wintertime) nighttime ambient noise level will be calculated from background sound level monitoring data. This will be equal to the L90 of sound levels measured at night, during leaf off conditions at each of the monitoring locations. Nighttime will be 9 hours (10 p.m. – 7 a.m.).
  - (iv) The worst case future noise level during the daytime period will be determined for each sensitive receptor listed in Section (a) of this Exhibit by logarithmically adding the most representative daytime ambient sound level (L90) as related to the use and soundscape of the location being evaluated, calculated from background sound level monitoring in Section (f)(1), to the modeled upper tenth percentile sound level (L10) of the Project. The L10 statistical noise descriptor corresponds to the highest short-term daytime sound level. Daytime will be 15 hours (7 a.m. – 10 p.m.).
  - (v) The worst case future noise level during the leaf on (i.e., summertime) nighttime period will be determined for each sensitive receptor listed in Section (a) of this



Exhibit by logarithmically adding the most representative leaf on nighttime ambient sound level (L90) as related to the use and soundscape of the location being evaluated, calculated from background sound level monitoring in Section (f)(2), to the modeled upper tenth percentile sound level (L10) of the Project at each evaluated receptor. Nighttime will be 9 hours (10 p.m. – 7 a.m.).

(vi) The worst case future noise level during the leaf off (i.e., wintertime) nighttime period will be determined for each sensitive receptor listed in Section (a) of this Exhibit by logarithmically adding the most representative leaf off nighttime ambient sound level (L90) as related to the use and soundscape of the location being evaluated, calculated from background sound level monitoring in Section (f)(3), to the modeled upper tenth percentile sound level (L10) the Project at each evaluated receptor. Nighttime will be 9 hours (10 p.m. – 7 a.m.).

(vii) The daytime ambient average noise level will be calculated by logarithmically averaging sound pressure levels (Leq) (after exclusions) from the background sound level measurements over the daytime period at each monitoring location. These calculations will include both leaf on (i.e., summertime) and leaf off (i.e., wintertime) data. Daytime will be 15 hours (7 a.m. – 10 p.m.).

(viii) Typical Project noise levels for each sensitive receptor listed in Section (a) of this Exhibit will be calculated as the median sound pressure level emitted by the Project at each evaluated receptor (L50). The median sound pressure level will likely be similar to the highest short-term daytime sound level.

(ix) Typical Project daytime noise levels for each sensitive receptor listed in Section (a) of this Exhibit will be calculated as the most representative daytime equivalent average sound level (Leq) that was calculated from background sound level monitoring in Section (f)(7), as related to the use and soundscape of the location being evaluated, logarithmically added to the median Project sound pressure level (L50) at each evaluated receptor. The L50 statistical noise descriptor will correspond to the daytime value calculated in Section (f)(8). Daytime will be 15 hours (7 a.m. – 10 p.m.).

(g) A description of the noise standards applicable to the Project, including any local substantive requirements, and noise design goals for the Project at representative potentially impacted noise receptors, including residences, outdoor public facilities and areas, hospitals, schools, other noise-sensitive receptors, and at representative external

property boundary lines of the Project and related facilities and ancillary equipment sites.

- (h) A table outlining regulations, ordinances, noise standards, guidelines, and goals applicable to the Project. The Applicant will review applicable local codes and will provide a summary of applicable substantive noise standards from these codes. In addition, the Applicant will include a summary of noise-modeling results from the PNIA for all sensitive receptors as listed in Section (a) of this Exhibit in relation to applicable noise ordinances, standards, guidelines, goals and identified criteria by using the specific requirements as related to noise descriptors (e.g., Leq, L10), weighting scales, and time frame of determination (e.g., minutes/hour, 1 hour, 1 year). The number of receptors exceeding any identified limit, threshold, goal, guideline, or recommendation will be included in the Application (in terms of absolute and relative numbers). For ease of identification and comparison, the sound study prepared for Exhibit 19 of the Application will use the same definition of “sensitive receptor” and will employ a common receptor labelling system, as used throughout the Application. Noise levels for participant and non-participant lot boundary lines will be represented as specified in Section (d).
- (i) Identification and evaluation of reasonable noise abatement measures for construction activities will be provided, including a description of the Complaint Resolution Plan that shall be provided during the construction period. The Application will include an assessment of reasonable noise abatement measures during construction (i.e., implementing BMPs, Complaint Resolution Plan, etc.).
- (j) The Complaint Resolution Plan will include information on how and when the process to file a complaint (i.e. written, electronic, and oral) will be communicated to the public. An identification of any procedures or protocols that may be unique to each phase of the Project (e.g. construction, operation, decommissioning) or complaint type (e.g. noise) will also be included. The Applicant will maintain a complaint log listing all complaints and resolutions during construction and operations of the Project and the Plan will include a procedure for review and transmittal of the complaint log to DPS Staff. The Town Clerk will be notified when a complaint is filed.

- (k) An identification and evaluation of reasonable noise abatement measures for the final design and operation of the Project including the use of alternative technologies, alternative designs, and alternative Project arrangements.
  
- (l) An evaluation of the following potential community noise impacts:
  - (i) The potential for the Project to result in hearing damage will be addressed using OSHA standards, EPA “Levels” document (1974), and the World Health Organization (WHO) (WHO, 1999)
  - (ii) Indoor and outdoor speech interference will be addressed using the EPA “Levels” document (1974) and WHO (1999) Guideline Levels
  - (iii) Potential for annoyance and complaints will include a review of peer-reviewed and/or government-sponsored literature, studies, and/or publications, specific to the relationship between solar project noise and annoyance/complaints
  - (iv) Information regarding construction activities will be included in the Construction Operations Plan, the Preliminary Blasting Plan (if any blasting is determined to be necessary), and the Preliminary Geotechnical Report. Potential for some construction activities (such as blasting, pile driving, excavation, horizontal directional drilling [HDD] or rock hammering, if any) to produce any cracks, settlements or structural damage on any existing proximal buildings, including any residences, historical buildings or infrastructure will be analyzed in this section and included in the Application.
  - (v) Potential for air-borne or ground-borne transmitted vibrations from the operation of the Project to reach a sensitive receptor including any sensitive technological, industrial, or medical activities and cause vibrations on the floors or on building envelope elements that may be perceived at the receptor will be evaluated through a review of peer-reviewed and/or government sponsored literature, studies, and/or publications.
  
- (m) A description of the proposed post-construction evaluation studies and a plan for post-construction evaluations to determine conformance with operational noise design goals will be provided.

- (n) An identification of practicable post-construction operational controls and other mitigation measures that will be available to address reasonable complaints, including a description of a complaint resolution plan that shall be provided during periods of operation.
  
- (o) Specific modeling input parameters, assumptions, and any associated data used in sound propagation modeling and calculations will be included as an appendix to the PNIA and shall fairly match the unique operational noise characteristics of the particular equipment proposed for the Project. The Application will include noise source locations (including latitude/longitude coordinates plus elevation above sea level) , evaluated participating and non-participating receptor locations (including latitude/longitude coordinates plus elevation above sea level); participant and non-participant boundary lines; and noise source sound level data, where available. These will be delivered directly to DPS Staff by electronic means.

## 3.20 Cultural Resources (Exhibit 20)

### Introduction and Record of Consultation

Consistent with 16 NYCRR § 1001.20, the Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation, and the New York Archaeological Council's (NYAC's) Standards for Cultural Resource Investigations and the Curation of Archaeological Collections in New York State (1994), the Applicant is initiating consultation with the New York State Office of Parks, Recreation, and Historic Preservation (OPRHP) to develop a scope and methodology for cultural resources studies for the proposed Project.

To date, a desktop review of cultural resources surveys, reports, recorded site locations, historic areas/buildings, and archaeological sensitivity has been conducted using the OPRHP's Cultural Resources Information System (CRIS). A study of the impacts of construction and operation of the Project on cultural resources will be conducted and detailed in the Application with Phase IA and Phase IB (if required) archaeological survey reports and historic architectural survey report included in the appropriate appendix.

As no field surveys have been conducted to date, the following summarizes the results of a preliminary desktop search. The Application will contain an analysis of the impacts of construction and operation of the proposed Project on cultural resources identified, as well as the results of both the consultation with the OPRHP, the Phase IA and Phase IB studies (if required), and the reconnaissance-level architectural survey. An Unanticipated Discovery Plan will be provided in the Application that identifies the actions to be taken in the event that resources of cultural, historical, or archaeological importance are encountered during construction activities.

The Project will consist of solar arrays, access roads, inverters, fencing buried (and possibly overhead) electric collection lines, a proposed collection substation tap line and 115 kV switchyard. These elements of the Project will require ground disturbance activities during their installation. It is anticipated that archeological investigations would be required only for areas of significant ground disturbance. Based on a recent solar project in New York State, the OPRHP has determined that certain installation methods of solar arrays and fencing (such as with post-drivers) do not constitute significant ground disturbance and would in most cases not require archeological investigation. Similarly, installation of buried cables via narrow cable plow

may not constitute a significant ground disturbance thereby precluding the need for archeological survey.

### **Phase IA Archaeological Research**

The Applicant has begun a preliminary review of potential Phase IA archaeological resources within the Project Area, resulting in the following information. One archaeological resource, a historic period site, is located within the Project Area (APE for direct effects). Previously recorded historic resources located within five miles of the Project Area include:

- 29 individual resources listed in the National Register of Historic Places (NRHP);
- 2 historic districts listed in the NRHP;
- 53 individual resources that have been determined eligible for listing in the NRHP;
- 2 historic districts that have been determined eligible for listing in the NRHP; and
- 168 previously recorded but unevaluated resources.

A Phase IA report following the OPRHP Guidelines will be provided to the State Historic Preservation Office (SHPO) following a desktop review of cultural resources surveys, reports, recorded site locations, historic areas/buildings, and archaeological sensitivity has been conducted using the OPRHP's CRIS. The report will contain an environmental overview, precontact period and historic cultural contexts, summaries of previous cultural studies, listings of archaeological and historic sites in the surrounding area, research methods, and a discussion of the site sensitivity model and recommendations for Phase IB survey, as needed. The results and research designs of these nearby studies will be reviewed to gain an understanding of acceptable survey methods for projects in similar settings. In support of the text, historical maps and figures will be prepared to illustrate findings, including the development of sensitivity maps. The report will provide recommendations for Phase IB survey methods for review and acceptance by the OPRHP.

### **Phase IB Archaeological Survey**

Preliminary Phase 1A research indicates that one location within the Project Area is considered sensitive for archaeological resources. A Phase IB survey will likely be recommended by the Applicant. Should SHPO concur, then a field methodology for examining the Project APE during a Phase IB survey will be proposed. For archaeological resources, the APE is defined

as where ground disturbances may occur, inclusive of access roads, workspaces, collection lines, proposed collection substation, POI switchyard, and other areas of significant ground-disturbing activities. The Phase IB field methods will consist of both pedestrian and shovel test pit (STP) survey to locate all archaeological resources within the Project APE. In areas of high and moderate sensitivity, the Applicant will excavate STPs at 15-meter intervals along survey transects in all proposed construction impact areas. To help ascertain the viability of the sensitivity -defined field methods, the Applicant will examine between 5 and 10 percent\* of all areas identified as high and moderate sensitivity with a 5-meter STP interval. The locations of the smaller subset of close interval testing in high and moderate sensitivity areas will be based on suitable areas as determined in the field. (\*Note: The selection of size of the subset will be determined by individual parcel configuration).

In areas of low sensitivity, which consist predominantly of areas of steep slope, a combination of pedestrian survey and judgmental STP excavation will be conducted. Pedestrian survey will be conducted in lieu of shovel testing where steep slope, exposed bedrock, wetlands, and/or ground disturbance precludes the utility of shovel testing. Judgmental STPs will be excavated in areas of micro-topography, such as small level benches on steep slope, possible rock shelter locations, and narrow, ephemeral stream crossings.

Per the OPRHP Guidelines, all STPs will measure 30-50 centimeters (12-20 inches) in diameter and will be excavated to sterile subsoil. All excavated soil will be screened through ¼-inch hardware cloth over tarps or plastic sheeting. Soil strata within each shovel test will be recorded on standardized forms describing Munsell color and United States Department of Agriculture (USDA) soil types. All recovered artifacts will be bagged, labeled, and sent to the laboratory for processing and analysis. All shovel tests will be backfilled after completion. All positive shovel tests will be recorded using a *Trimble* sub-meter accurate GPS unit and plotted on aerial photographs and Project maps.

Additional STP (radials) will be excavated around positive tests in a radial pattern in order to define Isolated Finds. Per OPRHP Guidelines, when artifacts are discovered in an isolated shovel test context, a minimum of eight additional shovel tests at 1-meter (3.3 feet) and 3-meter (10 feet) intervals will be excavated. Radial tests will not be excavated when artifacts are found in two or more adjacent or nearby STPs since this technique is appropriate only for isolated finds and not for archaeological sites. All work will be conducted inside the Project

APE. No archaeological survey is anticipated in areas where there will be no proposed disturbance, unless field conditions or construction feasibility warrant a change in design resulting in potential ground disturbance in those areas.

Following completion of Phase IB research, a Technical Report will be prepared following *OPRHP Guidelines*. The report will contain a brief environmental overview, prehistoric and historic cultural contexts, summaries of previous cultural studies, listings of archaeological and historic sites in the surrounding area, fieldwork methods and results, and recommendations. In support of the text, historical maps and photographs will be prepared to illustrate findings. Tables including the artifact inventory and shovel tests results will be appended as needed. The report will provide recommendations on whether the archaeological sites are eligible or ineligible for inclusion in the NRHP, or if additional Phase II studies would be required to determine site eligibility. It is anticipated the report will be filed with the Application. All final documents will be filed as part of any required compliance filing or with the Secretary.

### **Phase II Study**

Should an archaeological site be identified during the Phase I study that cannot be avoided, a Phase II site investigation will be conducted in consultation with the OPRHP. Should a Phase II study be conducted, it would serve to provide a NRHP eligibility determination of the site and define the site boundaries.

### **Discovery of Human Remains**

If Native American human remains are encountered, procedures for such discoveries would be followed in accordance with state regulations. This will involve consultation with the SHPO or Tribal Historic Preservation Office (THPO) and appropriate interested parties in an effort to identify and notify next of kin, closest lineal descendant, or the Indian tribes who may be culturally affiliated with the remains, and to determine appropriate treatment and disposition of the remains.

If human remains are encountered, work in the near vicinity of the remains would cease and reasonable efforts made to avoid and protect the remains from additional impact. In cases of inclement weather, the human remains would be protected with tarpaulins. The county medical examiner would be notified of the discovery. If the remains are found to be other than human,



construction will be cleared to proceed. If the remains are human, and are less than 75 years old, the local medical examiner and local law enforcement officials will assume jurisdiction.

If the remains are found to be human and older than 75 years, the OPRHP will be notified and may assume jurisdiction of the remains. If jurisdiction is assumed by the OPRHP, they will a) determine whether the human remains represent a significant archaeological resource, and b) make a reasonable effort to identify and locate persons who can establish direct kinship, tribal community, or ethnic relationship with the remains. If such a relationship cannot be established, then the OPRHP may consult with a committee to determine the proper disposition of the remains. This committee shall consist of a human skeletal analyst, Native American members of current State tribes recommended by the Governor's Council on Indian Affairs, and "an individual who has special knowledge or expertise regarding the particular type of the unmarked human burial."

A plan for the avoidance of any further impact to the human remains and/or mitigative excavation, re-interment, or a combination of these treatments will be developed in consultation with the OPRHP and if applicable, appropriate Native American tribes or closest lineal descendants. Parties will be expected to respond with advice and guidance in an efficient time frame. Once the plan is agreed to by all parties, the plan will be implemented.

The plan will include a provision for work stoppage in the immediate site of the find upon the discovery of possible archaeological or human remains. Evaluation of such discoveries, if warranted, will be conducted by a professional archaeologist, qualified according to the NYAC Standards. The Unanticipated Discovery Plan will specify the degree to which the methodology used to assess any discoveries follows the NYAC Standards.

### **Unanticipated Discovery Plan**

The Application will include an Unanticipated Discovery Plan that will identify the actions to be taken in the unexpected event that resources of cultural, historical, or archaeological importance are encountered during Project construction. This Unanticipated Discovery Plan presents the approach that would be employed to address such emergency discoveries to ensure that any potentially significant archaeological resources discovered are dealt with in full accordance with State and Federal requirements, including the most recent Standards for Cultural Resource Investigations and Curation of Archaeological Collections in New York

State. This approach would also ensure that procedures and lines of communication with the appropriate government authorities are clearly established prior to the start of construction so that discoveries can be addressed in a timely manner, minimizing the impacts to the construction schedule to the extent possible.

Both the environmental inspectors and construction personnel will be provided with a preconstruction briefing regarding potential cultural resources indicators. These indicators would include items such as recognizable quantities of bone, unusual stone deposits and ash deposits, or black-stained earth that could be evident in spoil piles or trench walls during construction. In the event that potentially significant cultural resources or human remains are discovered during construction, the environmental monitors and construction personnel would be instructed to follow the specific requirements and notification procedures outlined below. Cultural resource discoveries that require reporting and notification include any human remains and any recognizable, potentially significant concentrations of artifacts or evidence of human occupation.

If cultural resources indicators are found by construction personnel, the construction supervisor would be notified immediately. The supervisor, in turn, would notify the environmental inspector, who would notify a designated archaeologist, who would be available to respond to this type of find. Based on the information provided, the archaeologist would determine if a visit to the area is required and, if so, would inform the construction crews. No construction work at the immediate discovery site that could affect the artifacts or site would be performed until the archaeologist reviews the site. The site would be flagged as being off-limits for work but would not be identified as an archaeological site per se in order to protect the resources. The archaeologist would conduct a review of the site and would test the site as necessary. The archaeologist would determine, based on the artifacts found and on the cultural sensitivity of the area in general, whether the site is potentially significant and would consult with the OPRHP regarding site eligibility.

### **Historic Architectural Survey**

On June 12, 2019, the NYS SHPO requested, “a survey of above-ground historic resources within, adjacent to and within the immediate viewshed to the project APE.” In compliance with Section 106 of the NHPA and Article 10 regulatory requirements, the Applicant will conduct a reconnaissance-level historic architectural survey for the Project. The goal of the survey will

be to document architectural resources 50 years or older within the Project APE and evaluate their eligibility for listing on the NRHP. For those properties that are listed or recommended as eligible for listing on the NRHP, the Applicant will further investigate properties for potential visual effects.

### **Architectural Field Survey**

The Applicant will conduct an architectural field survey of the proposed APE. The architectural field survey will revisit all previously recorded resources and document any newly identified architectural resources 50 years old or older that fall within the Project APE. The architectural field survey will include systematically driving all public roads within the APE to identify resources present. All resources will be assessed from public ROW. Based on previous consultation with OPRHP for a previous large-scale solar energy project (EDR, 2017), buildings that are not sufficiently old (less than 50 years), clearly lack architectural integrity, or are otherwise evaluated by the architectural historian as lacking historical or architectural significance will not be included in or documented during the survey.

The previously identified NRHP-listed historic property will be checked and photographed to record existing conditions and reassess its current NRHP status. Each previously identified but unevaluated resource and each newly identified resource will be documented via photography. Their locations will be recorded on field maps, and field notes will be recorded describing the style, physical characteristics, materials, condition, integrity, and other noteworthy characteristics of each resource. The NRHP evaluation of historic resources will apply the two-part test of historic significance integrity to determine eligibility.

Upon completion of the field survey, the surveyed architectural resources will be analyzed in accordance with the NRHP Criteria in 36 Code of Federal Regulations (CFR) § 60.4. A Historic Architectural Survey letter report will be produced for submittal to the OPRHP and as part of the Application. The report will include a project description, statement of methodology, historic context, summary of surveyed resource types, and field results. Survey results will include recommendations of NRHP eligibility/non-eligibility and a preliminary assessment of Project effects, as well as any necessary recommendations for further work. The report will also include maps showing the location of all previously recorded and newly recorded architectural resources in the APE. Surveyed resources will also be entered individually into CRIS with the report and GIS shapefiles for the Project.

### **Agency Consultation and Definition of APE**

The Applicant will consult with the OPRHP concerning the definition of the APE for direct and indirect effects, and its proposed survey methodology. The APE for aboveground structures is defined as the geographic area or areas within which an undertaking may directly or indirectly cause changes in the character or use of historic properties, if any such properties exist. For assessment of effects to historic architectural resources, the APE is determined in relation to the nature and scale of new construction, improvements, or demolitions to be made as a result of the continuing O&M of the solar facility.

For assessment of direct effects, the APE is defined as the area of construction. The Project is expected to have no physical impacts to aboveground resources. The APE for indirect (i.e., visual, atmospheric, or audible) effects includes those areas removed in distance, where Project components will be visible and where there is a potential for a significant visual effect. Per the requirements set forth in 16 NYCRR § 1000.2 (ar), the Study Area to be used for analysis of major electric generating facilities is defined as:

*(ar) Study Area: an area generally related to the nature of the technology and the setting of the proposed site. In highly urbanized areas, the study area may be limited to a one-mile radius from the property boundaries of the facility site, interconnections, and alternate location sites. For large facilities or wind power facilities with components spread across a rural landscape, the study area shall generally include the area within a radius of at least five miles from all generating facility components, interconnections and related facilities and alternative location sites. For facilities in areas of significant resource concerns, the size of a study area shall be configured to address specific features or resource issues.*

Considering the Project's relatively low profile compared to wind power facilities, a 5-mile APE is inappropriate. Consistent with the viewshed analysis described in Exhibit 24, the Applicant is proposing a 2- to 5-mile APE radius to identify specific historic resources. The historic resource APE for indirect effects likely comprises those areas within 2 to 5 miles of the proposed Project and which fall within the potential viewshed of the Project (i.e., those areas from which the Project is potentially visible). The 2- to 5-mile-radius Study Area for the Project includes parts of Fayette and Waterloo in Seneca County and the City of Geneva, Town of Geneva and Phelps in Ontario County.

### **Proposed Studies**

Consistent with 16 NYCRR § 1001.20, the Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation, and the NYAC's Standards for Cultural Resource Investigations and the Curation of Archaeological Collections in New York State (1994), the Applicant initiated consultation with the New York State OPRHP via the CRIS system on May 20, 2019, to develop the scope and methodology for cultural resources studies for the Project. The Applicant proposes to collect, evaluate and provide the following information to support and prepare Exhibit 20 of the Application in accordance with 16 NYCRR §1001.20:

- (a) A study of the impacts of the construction and operation of the Project, interconnections, and related facilities on archaeological resources, including:
  - (i) Consultation with local historians, such as the Town of Waterloo Historical Society, the Town of Waterloo, including the Town Supervisor, to identify locally significant archaeological/cultural resources.
  - (i) A summary of the nature of the probable impact on any archaeological/cultural resources identified addressing how those impacts shall be avoided or minimized, to the maximum extent practicable;
  - (ii) A Phase IA archaeological/cultural resources study for the APE for the Project Area, as determined in consultation with OPRHP, including a description of the methodology used for such study;
  - (iii) A Phase IB study, if required, as determined in consultation with OPRHP;
  - (iv) Phase II archaeological studies, in consultation with OPRHP and DPS, if warranted based on Phase I study results;
  - (v) A Phase III Data Recovery Plan, following completion of a Phase II archaeological study, if any identified archaeological site cannot be avoided through modification of Project design. The Phase III Data Recovery Plan will be prepared by the Applicant in consultation with the NYS OPRHP and submitted as part of the Compliance Filing. The Phase III Data Recovery would be conducted in advance of any ground-disturbing activities and would serve to mitigate impacts caused by Project development to any NRHP-eligible archaeological site(s);
  - (vi) A complete list of all recovered artifacts; and
  - (vii) An Unanticipated Discovery Plan that shall identify the actions to be taken in the unexpected event that resources of cultural, historical or archaeological

importance are encountered during the excavation process. The Plan shall include a provision for work stoppage upon the discovery of possible archaeological or human remains. In addition, the Plan shall specify the degree to which the methodology used to assess any discoveries follows the most recent Standards for Cultural Resource Investigation and Curation of Archaeological Collections in New York State. Such an assessment, if warranted shall be conducted by a professional archaeologist, qualified according to the standards of the NYAC.

- (b) A study of the impacts of the construction and operation of the Project and the interconnections and related facilities on historic resources, including the results of field inspections and consultation with local historic preservation groups to identify sites or structures listed or eligible for listing on the State or NRHP within the viewshed of the Project and within the Study Area, including an analysis of potential impact on any standing structures which appear to be at least 50 years old and potentially eligible for listing in the State or NRHP, based on an assessment by a person qualified pursuant to federal regulation (36 C.F.R. 61).
  - (i) The Applicant will consult with OPRHP and DPS to obtain input concerning appropriate criteria for Historic Architectural studies.
  - (ii) Any cemeteries and other significant cultural features within the APE will be identified. Access to cemeteries located within the Project Area will be discussed.
  - (iii) Mitigation measures, such as local improvement projects, will be discussed should there be any unavoidable impacts to cultural resources. Audible or visual impacts, if any, will also be addressed.
- (c) Based on the Project's geographical location and guidance from the NYS OPRHP and the Indian Nations of New York State, the Applicant has initiated consultation with Native American Tribes. Based on the Project's geographical location and guidance from the NYS OPRHP and the Indian Nations of New York State, the Application will consult with the following Federally Recognized Tribes: Cayuga Nation, Oneida Nation of New York, Onondaga Nation, Seneca Nation of Indians, Shinnecock Indian Nation, Tonawanda Band of Seneca, Tuscarora Nation of New York, and the Saint Regis Mohawk Tribe. The Tribal consultation procedures will

include preparing correspondence to each THPO that describes the Project's location and design. The Applicant will request comments from each THPO on any potential effects from the Project on Tribal resources or Tribal lands. Documentation of these consultations will be included in the Application and reflected in the Meeting Log.

- (d) Installation methods used for collection lines and potential impacts on cultural resources will be included in the Application.





### **3.21 Geology, Seismology, and Soils (Exhibit 21)**

The Project will not result in significant impacts to geology, topography, and soils. Only temporary, minor impacts to topography are expected as a result of construction activities. For example, where arrays and access road sites are not located on completely level terrain, some minor cut and fill or addition of fill may be required.

A preliminary investigation of the geology, seismology, and soils specific to the Project Area has been conducted via desktop review to provide an overview of the general conditions anticipated for the Project. Additionally, observations about localized geologic topographic conditions are based upon preliminary reconnaissance level field surveys that were conducted in 2019.

Exhibit 21 of the Application will include a study of the geology, seismology, and soils within the Project Area. Each study will consist of the identification and mapping of existing conditions, an impact analysis, and proposed impact avoidance and mitigation measures. An evaluation of the constructability and suitability of equipment foundations will also be addressed based upon site-specific conditions. Analysis of the site-specific conditions, engineering characteristics, anticipated impacts and proposed avoidance and mitigation measures will be provided in the Application. At this time, the Applicant anticipates that the solar array racking systems will be supported by posts driven into the ground and will not require foundations. Therefore, the only foundations proposed will be those necessary for the proposed collection substation and POI switchyard.

A map delineating existing slopes (0-3%, 3-8%, 8-15%, 15-25%, 25-35%, 35% and over) within the drainage area potentially impacted by the Project has been prepared using the USGS National Elevation Dataset (see Figure 7). Esri ArcGIS® Software will be used to identify drainage areas and develop detailed slope mapping for the Project Area. The Applicant will include potential receptor areas of stormwater runoff and an identification of sensitive environmental agricultural, and human health and safety receptors for potential hazards associated with construction on slopes greater than 25 percent, if necessary.

The Application will include the proposed, conceptual site plan which will show existing and proposed contours at two-foot intervals, the solar array locations, access roads, laydown and

staging areas, proposed collection substation, and POI switchyard. The Applicant proposes to use two-foot contours constructed from publicly available digital elevation models (DEM) or site-specific topographic surveys as a basis for the calculation of earth disturbance calculations.

The Application will generally describe the typical scenarios that would result in cut and fill necessary to construct the Project, such as constructing an access road on a side slope, as applicable. Trelina Solar Energy Center will provide preliminary calculations of the quantities of cut and fill required to support the construction of all structures and access roads as part of the Project using the assembled two-foot contours. Separate approximations for topsoil, subsoil, and rock will be provided. These summaries will be based upon publicly available datasets and compared to the preliminary site design.

The Application will include the preliminary estimates of fill, gravel, asphalt, and surface treatment materials that are anticipated to be required for solar arrays, access roads, staging areas, and other associated Project facilities. The Application will describe the anticipated amount and characteristics of fill materials expected to be imported to the Project Area, should any be required. No material is expected to be removed from the Project Area. General on-Site locations for the storage of cut and fill material during the construction phase of the Project will be identified and provided in the Preliminary Design Drawings.

Construction of the Project will involve typical excavation techniques as would be used for similar work and access road clearing activities. The primary areas of ground disturbance will include the construction of access roads and buried collector cable routes. Commonly used excavation equipment such as backhoes and/or bulldozers are expected to perform much of the work. Collector cable embedment is likely to use a cable trencher, plow, or blade where possible. A specific description of the processes determining excavation locations will be provided in the Application. Factors used to determine the use of excavation will include but are not limited to, soil corrosivity, depth to bedrock, bedrock competence, and other subsurface constraints. Minimal disturbance will be required for the solar array racking system as they will be supported on posts driven into the ground, therefore not requiring excavation.

The discussion of suitability for construction of buried cables included in the Application will consider the potential for dewatering, soil resistivity, and mechanical protection of the cables.

It is anticipated that the contractor for this Project can excavate buried cable trenches with relatively little difficulty using a rock saw, cable trencher or plow. In the event that bedrock is encountered, it is anticipated to be rippable due to its content, and will thus be excavated using large excavators, rock rippers, or chipping hammers.

As the Project Area includes areas of active agricultural land, the Application will include a discussion of consistency, to the maximum extent practicable, with the NYSDAM guidance document entitled *Guidelines for Agricultural Mitigation for Solar Energy Projects* (most recent version at time of Application filing). A discussion of methods for identifying drainage tile lines prior to construction, along with restoration of any tile lines impacted by Project construction activities, will be included.

Within the Project Area, there is one main geologic unit present, the Onondaga Limestone group. This unit was formed in the middle Devonian and is comprised of predominately broad carbonate platform facies comprised of limestones and shales. Most of the rock types are made up of soft fragments and do not pose an obstacle to excavation (USGS, 2019).

The Applicant will identify locations where trenchless excavation methods (e.g., HDD) may be proposed if determined necessary. Specifically, the prospective use of HDD methods will be focused on navigating facilities below streams, wetlands and/or significant natural resources indicated by state and federal agencies and when deemed pertinent to the Project. Specific locations will be determined using appropriate siting methods including appropriate setbacks from water resources and investigations into local bedrock/sub-soil characteristics. Erosion control measures and inadvertent return plans used during the operation will also be provided.

The use of blasting techniques is not anticipated. Therefore, the Applicant intends to provide a general statement in the Application indicating that blasting is not likely to be required. This statement will reference the results and data obtained from a preliminary geotechnical investigation and indicate that a preliminary blasting plan need not be provided, an assessment of potential impacts is not required, and mitigation efforts as a result of blasting is not necessary. However, in the event that a unique situation is encountered and blasting is required, a blasting plan will be prepared and included in the Application. The plan will address all blasting operations and logistics necessary to mitigate risks associated with the operation such as safe transportation, coordination with local safety officials, assessment of potential

adverse impacts, and the evaluation of reasonable mitigation measures resulting from blasting impacts.

A desktop review of the USDA NRCS Web Soil Survey was used to collect soil data within the Project Area (see Figure 8). The USDA NRCS Web Soil Survey indicates that five of the soils found in the Project Area are soils of statewide importance for farmland. The USDA NRCS soil data is categorized by mapping unit, land area coverage of the Project Area (acreage), percent land coverage of the Project Area (percentage), slope, drainage class, hydrologic soil group (HSG), and farmland classification. The soils included below represent the soils which are the most commonly found within the Project Area. These soils are described in more detail below in order to provide a general understanding of the soils within the Project Area. The Soil Survey of Seneca County, New York indicates that the Project Area predominantly consists of loamy fine sand, ranging from very poorly drained to well drained soils. In addition, the soils established on-Site were classified by their farmland importance: “*farmland of statewide importance*”, “*prime farmland if drained*”, or “*not prime farmland*.”

General descriptions of the USDA NRCS soils series found within the Project Area are provided below.

### **Soil Descriptions**

#### *Alluvial land, 0 to 5 percent slopes (AI) –*

Consists of poorly drained soils that occur on toeslopes, dips, and floodplains. These soils are developed in alluvium with highly variable texture. The typical profile is 0-70 inches thick.

#### *Arkport loamy fine sand, 1 to 6 percent slopes (ArB) –*

Consists of well drained soils that occur on deltas on lake plains, summits, and treads. These soils are developed in glaciofluvial or deltaic deposits with a high content of fine and very fine sand. The typical profile is 0-99 inches thick.

#### *Arkport loamy fine sand, 6 to 12 percent slopes (ArC) –*

Consists of well drained soils that occur on deltas on lake plains, shoulders, and treads. These soils are developed in glaciofluvial or deltaic deposits with a high content of fine and very fine sand. The typical profile is 0-99 inches thick.

*Canandaigua silt loam, 0 to 2 percent slopes (Ca) –*

Consists of poorly drained soils that occur on depressions, toeslopes, and treads. These soils are developed in silty and clayey glaciolacustrine deposits. The typical profile is 0-60 inches thick.

*Claverack loamy fine sand, 0 to 2 percent slopes (CkA) –*

Consists of moderately well drained soils that occur on lake plains, summits, and treads. These soils are developed in sandy glaciolacustrine deposits, derived primarily from non-calcareous sandstone or granite, that overlie clayey glaciolacustrine deposits. The typical profile is 0-60 inches thick.

*Claverack loamy fine sand, 2 to 6 percent slopes (CkB) –*

Consists of moderately well drained soils that occur on lake plains, summits, and treads. These soils are developed in sandy glaciolacustrine deposits, derived primarily from non-calcareous sandstone or granite, that overlie clayey glaciolacustrine deposits. The typical profile is 0-60 inches thick.

*Collamer silt loam, 0 to 2 percent slopes (CIA) –*

Consists of moderately well drained soils that occur on lake plains, summits, and treads. These soils are developed in silty and clayey glaciolacustrine deposits. The typical profile is 0-60 inches thick.

*Collamer silt loam, 2 to 6 percent slopes (CIB) –*

Consists of moderately well drained soils that occur on lake plains, summits, and treads. These soils are developed in silty and clayey glaciolacustrine deposits. The typical profile is 0-60 inches thick.

*Cosad loamy fine sand, 0 to 2 percent slopes (Cu) –*

Consists of somewhat poorly drained soils that occur on lake plains, footslopes, and treads. These soils are developed in sandy glaciofluvial or deltaic deposits over clayey glaciolacustrine deposits. The typical profile is 0-60 inches thick.

*Edwards muck, 0 to 2 percent slopes (Ed) –*

Consists of very poorly drained soils that occur in swamps, marshes, toeslopes, and talfs. These soils are developed in organic material over marl. The typical profile is 0-60 inches thick.

*Elnora loamy fine sand, 2 to 6 percent slopes (EIB) –*

Consists of moderately well drained soils that occur on beach ridges, deltas, summits, and treads. These soils are developed in sandy glaciofluvial, eolian, or deltaic deposits. The typical profile is 0-60 inches thick.

*Fresh water marsh (Fw) –*

Consists of soils that occur in marshes. These soils are typically developed in depressions.

*Lakemont silty clay loam, 0 to 3 percent slopes (LcA) –*

Consists of poorly drained soils that occur on depressions, toeslopes, and treads. These soils are developed in red clayey glaciolacustrine deposits derived from calcareous shale. The typical profile is 0-79 inches thick.

*Lamson fine sandy loam and Mucky fine sandy loam, 0 to 2 percent slopes (Lf) –*

Consists of very poorly drained soils that occur on depressions, toeslopes, and treads. These soils are developed in deltaic or glaciolacustrine deposits with a high content of fine and very fine sand. The typical profile is 0-60 inches thick.

*Made land, tillable, 0 to 8 percent slopes (Md) –*

Consists of moderately well drained soils. The typical profile is 0-70 inches thick.

*Muck, deep, 0 to 2 percent slopes (Mr) –*

Consists of very poorly drained soils that occur on swamps, marshes, toeslopes, and talfs. These soils are developed in organic material. The typical profile is 0-66 inches thick.

Niagara silt loam, 0 to 2 percent slopes (Ng)

Consists of somewhat poorly drained soils that occur on lake plains, footslopes, and treads. These soils are developed in silty and clayey glaciolacustrine deposits. The typical profile is 0-60 inches thick.

Odessa silt loam, 0 to 3 percent slopes (OdA) –

Consists of somewhat poorly drained soils that occur on lake terraces, footslopes, and treads. These soils are developed in red clayey glaciolacustrine deposits derived from calcareous shale. The typical profile is 0-79 inches thick.

Schoharie silt loam, 2 to 6 percent slopes (SeB) –

Consists of moderately well drained soils that occur on lake terraces, summits, shoulders, and treads. These soils are developed in red clayey glaciolacustrine deposits derived from calcareous shale. The typical profile is 0-79 inches thick.

Schoharie silty clay loam, 0 to 3 percent slopes (ShA) –

Consists of moderately well drained soils that occur on lake terraces, summits, and treads. These soils are developed in red clayey glaciolacustrine deposits derived from calcareous shale. The typical profile is 0-79 inches thick.

Schoharie silty clay loam, 2 to 6 percent slopes (ShB) –

Consists of moderately well drained soils that occur on lake terraces, summits, shoulders, and treads. These soils are developed in red clayey glaciolacustrine deposits derived from calcareous shale. The typical profile is 0-79 inches thick.

Schoharie silty clay loam, 6 to 12 percent slopes (ShC3) –

Consists of moderately well drained soils that occur on lake terraces, shoulders, backslopes, and risers. These soils are developed in red clayey glaciolacustrine deposits derived from calcareous shale. The typical profile is 0-79 inches thick.

Sloan silt loam, 0 to 2 percent slopes (Sn) –

Consists of very poorly drained soils that occur on floodplains, toeslopes, and dips. These soils are developed in loamy alluvium. The typical profile is 0-60 inches thick.

*Stafford loamy fine sand, 0 to 2 percent slopes (Sr) –*

Consists of somewhat poorly drained soils that occur on beach ridges, deltas, footslopes, and treads. These soils are developed in sandy glaciofluvial or glaciolacustrine deposits. The typical profile is 0-60 inches thick.

*Water, 0 percent slopes (W) –*

Consists only of water that occurs on the surface of the soil. The typical profile varies.

Maps, figures, and analyses will be prepared using information obtained from the USGS Online Spatial Geology Data, the USDA NRCS Web Soil Survey, and the preliminary geotechnical investigation conducted for the Project. These data sets will be used to discuss the suitability of the location for the Project in relation to variable soil types and conditions as well as addressing local bedrock characteristics. Analyses will include descriptions of soil structure, texture, and percentage of organic matter. Infiltration capacity and rate of recharge of the local soils will be discussed in order to address any proposed stormwater management measures and/or any dewatering operations which may be necessary during the construction of the Project. Studies will also include discussion on depth to bedrock and underlying bedrock types, including vertical profiles showing soils, bedrock, water table, and seasonal high groundwater. These characteristics will be depicted in relation to foundation depths for the collection substation and POI switchyard, and any area to be disturbed for the construction of access roads, and all interconnections required to serve the Project.

The overall suitability of the soil conditions for construction will be analyzed based on the results of the preliminary geotechnical investigation. This investigation will include test borings at a subset of proposed solar array and substation locations and reviews of publicly available surface and subsurface soils, bedrock, and groundwater data.

The results of the preliminary geotechnical investigation will be presented in Exhibit 21 of the Application and will provide a description of regional geology, tectonic settings, seismology, and include any known areas of karst geology within or adjacent to the Project Area. It will also analyze and address any perceived impacts to the regional geology as a result of construction and operation of the Project. This report will also address the construction of Project facilities within or adjacent to steep slopes, as applicable, and define methodologies to avoid severe erosion during extreme precipitation events and the sedimentation of water resources



downstream. Data used in this report will be based on a Project-specific site visit conducted by a geotechnical expert and their review of publicly available data including the Surficial Geologic Map of New York, Geologic (Bedrock) Map of New York, Soil Survey of Seneca County, Geology of Seneca County, Aquifers of NYS, and Geology of New York among other resources, coupled with the analysis of the test borings to be completed at a subset of solar array/substation locations.

In addition to the preliminary geotechnical results, Exhibit 21 of the Application will include a preliminary engineering assessment on the foundation designs expected to be needed for the proposed collection substation and POI switchyard equipment. A foundation evaluation will be undertaken to address the on-Site geologic conditions for determination of the preferred specifications of proposed foundations.

The seismology of Seneca County was analyzed based on the New York 2014 Seismic Hazard Map (see Figure 9). Based on the mapping, Seneca County is located in an area with a 2% probability over 50 years of peak acceleration exceeding 6% to 10% of the force of gravity. This indicates relative low probability for seismic activity and bedrock shift in the vicinity of the Project Area.

### **Proposed Studies**

The Applicant proposes to collect, evaluate, and provide the following information to support and prepare Exhibit 21 of the Application in accordance with 16 NYCRR § 1001.21. Exhibit 21 shall contain a study of the geology, seismology, and soils impacts of the Project consisting of the identification and mapping of existing conditions, an impact analysis, and proposed impact avoidance and mitigation measures, including:

- (a) A map delineating existing slopes (0-3%, 3-8%, 8-15%, 15-25%, 25-35%, 35% and over) on and within the drainage area potentially influenced by the Project Area and interconnections using the USGS National Elevation Dataset and Esri ArcGIS® software;
- (b) Information describing methods considered and proposed to avoid disturbance, erosion, and/or sedimentation of steep slopes (i.e. slopes steeper than 3:1 (h:v) and/or greater than 15%), as applicable;

- (c) A proposed site plan showing existing and proposed contours at two-foot intervals, for the Project Area and interconnections, at a scale sufficient to show all proposed structures, paved and vegetative areas, and construction areas. No buildings are proposed;
- (d) Preliminary cut and fill calculations based on publicly available contour data. Separate calculations for topsoil, sub-soil and rock will be roughly approximated based on publicly available data from the Seneca County Soil Survey. Exhibit 22 will describe a plan to identify the potential presence of invasive species in spoil material and to prevent the introduction and/or spread of invasive species by the transport of fill material to or from the site of the Project or interconnections. Separate estimates for materials that may need to be imported to the Project Area for access road construction, structural base for foundations, and compacted fill for placement of buried electric lines will be provided as applicable;
- (e) A description and preliminary calculation of the amount of fill, gravel, asphalt, and surface treatment material to be brought into the Project Area. The Application will describe the anticipated amount and characteristics of all fill materials expected to be imported into the Project Area. For comparative context, the anticipated amount of fill materials imported will be presented in both cubic yards, and the equivalent number of truck loads;
- (f) No fill, gravel, asphalt, or surface treatment materials will be removed from the Project Area. The Application will confirm that existing soils are suitable for reuse as backfill with reference to the results of the Preliminary Geotechnical Investigations and existing soils mapping and data, and will indicate why it is not necessary to remove material from the Project Area;
- (g) A description of construction methodologies and activities associated with the Project, including anticipated excavation techniques, based on site-specific Preliminary Geotechnical Investigations, and a preliminary identification of where each type of excavation will be employed. If HDD or other trenchless methods are anticipated, an inadvertent return plan will be included in the Application;

- (i) If HDD is proposed for stream/wetland crossings, road crossings, or other locations, the Application will include:
- A description of HDD operations and locations;
  - Maps identifying the proposed HDD locations;
  - Identification of stream/wetland crossing techniques, including a typical HDD equipment layout diagram; and
  - A HDD feasibility analysis and inadvertent return risk evaluation plan based on known and suspected soil and bedrock conditions.
- (h) A delineation of temporary cut or fill storage areas to be employed;
- (i) A description of the characteristics and suitability for construction purposes of the material excavated for the Project and of the deposits found at foundation level, including factors such as soil corrosivity, bedrock competence, and subsurface hydrologic characteristics;
- (j) Blasting is not anticipated as part of the Project, and the Applicant intends to provide a general statement in the Application indicating such. If blasting is determined to be required, a preliminary blasting plan including procedures and timeframes for notifying municipal officials and property owners (or persons residing at the location if different) within one-half miles radius of the blasting site of these activities, as well as an assessment of potential blasting impacts, and a blasting impact mitigation measures plan will be provided. The evaluation of reasonable mitigation measures regarding blasting impacts will include recommendations for setbacks from existing wells, including all identified water supply wells, livestock, residences, and other structures, and plans for pre- and post-blasting inspections of existing structures. In order to protect structures from damage, blasting shall be designed and controlled to meet the limits for ground vibration set forth in United States Bureau of Mines (USBM) Report of Investigation 8507 Figure B-1 and air overpressure shall be under the limits set forth in the Conclusion section in the USBM Report of Investigation 8485 (USBM, RI 8507 and USBM RI 8485);

- (k) An assessment of potential impacts of blasting to environmental features, above-ground structures, and below-ground structures such as pipelines, wells, and drain tiles, if applicable;
- (l) An identification and evaluation of reasonable mitigation measures regarding blasting impacts, including the use of alternative technologies and/or location of structures, and including a plan for securing compensation for damages that may occur due to blasting, if applicable;
- (m) A description of the regional geology, tectonic setting, and seismology of the Project Area;
  - (i) Information regarding the underlying carbonate karst formation of the Ontario Lowlands and methods considered and employed to avoid disturbance of this resource (USGS, 2014).
  - (ii) A site-specific karst conditions assessment that will provide the following: (i) identification of manner(s) in which construction activities will minimize excavations in karst-prone areas where excavations may facilitate subsurface erosion; (ii) risks and impacts to karst features and aquifers from directional drilling inadvertent returns and soil and bedrock displacement during excavations, boring operations, and pile driving will be addressed; (iii) although blasting is not anticipated, if blasting is proposed, a description of potential impacts to karst features from blasting operations.
- (n) An analysis of the expected impacts of construction and operation of the Project with respect to regional geology, if such can be determined;
- (o) An analysis of the impacts of typical seismic activity experienced in the Project Area based on current seismic hazards maps, on the location and operation of the Project identifying potential receptors in the event of failure, and if the Project is proposed to be located near a young fault or a fault that has had displacement in Holocene time, demonstration of a suitable setback from such fault;

- (p) A map delineating soil types within the Project Area and the various USDA NRCS farmland classifications as identified on the most current publicly available mapping. The Applicant will consult with the local NRCS office to identify the location of any local farmland designations, which shall be delineated on the maps, if applicable;
- (q) A description of the characteristics and suitability for construction purposes of each soil type identified above, including a description of the soil structure, texture, percentage of organic matter, and recharge/infiltration capacity of each soil type and a discussion of any de-watering that may be necessary during construction and whether the Project shall contain any facilities below grade that would require continuous de-watering;
- (r) Maps, figures, and analyses delineating depth to bedrock and underlying bedrock types, including vertical profiles showing soils, bedrock, water table, seasonal high groundwater, and typical foundation depths on the Project Area, and any area to be disturbed for roadways to be constructed and all off site interconnections required to serve the Project, including an evaluation for potential impacts due to Project construction and operation, including any on site wastewater disposal system, based on information to be obtained from available published maps and scientific literature, review of technical studies conducted on and in the vicinity of the Project, and on site field observations, test pits and/or borings as available;
- (s) An evaluation to determine suitable proposed collection substation and 115 kV switchyard foundations, including:
  - (i) A preliminary engineering assessment to determine the types and locations of foundations to be employed. The assessment shall investigate the suitability of such foundation types as spread footings, caissons, or piles, including a statement that all such techniques conform to applicable building codes or industry standards;
  - (ii) If piles are to be used, a description and preliminary calculation of the number and length of piles to be driven, the daily and overall total number of hours of pile driving work to be undertaken to construct the Project, and an assessment of pile driving impacts surrounding properties and structures due to vibration;

- (iii) Identification of mitigation measures regarding pile driving impacts, if applicable, including a plan for securing compensation for damages that may occur due to pile driving; and
  - (iv) A description of methods for minimizing, to the maximum extent practicable, vibrational impacts on nearby infrastructure, along with a description and justification of any proposed pile-driving setback distances.
- (t) An evaluation of the vulnerability of the Project Area and the operation of the Project to an earthquake event. Because of the Project's distance from any large body of coastal water, the Application will not address tsunami vulnerability;
- (u) As applicable, an evaluation of corrosion potential, including separate evaluations for the potential for corrosion of uncoated steel and the potential for corrosion and degradation of concrete;
- (v) A discussion of consistency, to the maximum extent practicable, with the NYSDAM guidance document entitled *Guidelines for Agricultural Mitigation for Solar Energy Projects* (most recent version at time of Application filing); and
- (w) As applicable, an evaluation of the risk of damage or displacement to foundations and underground cables from frost action and soil shrink/swell (if applicable based on the soils types within the Project Area). If existing soils are proposed for re-use as structural and/or compacted fill, the Application will assess the suitability of existing soils specifically for those purposes and describe screening measures to remove materials that do not meet the fill composition characteristics recommended by the Applicant's geotechnical expert.

### 3.22 Terrestrial Ecology and Wetlands (Exhibit 22)

Exhibit 22 of the Application will summarize the ecological communities within the Project Area as identified through a desktop resource review and on-Site field surveys. Plant, wildlife, and sensitive terrestrial communities will be identified through desktop research and review, and reconnaissance-level field observations, including on-Site wetland delineations. Preliminary on-Site ecological surveys were conducted during the 2019 growing season, and follow-up surveys may occur, if required, prior to the submittal of the Application. Based on a preliminary desktop review, the main terrestrial and wetland ecological communities currently mapped within the Project Area are summarized in the sections below.

#### **Regional**

The Project Area is within the Eastern Great Lakes Lowlands ecological region (ecoregion), as defined by Bryce et al. (2010). This ecoregion, which is assigned the map unit “83,” includes valleys and lowlands underlain by interbedded limestone, shale, and sandstone rocks that are more erodible than the more resistant rocks composing the adjacent mountainous areas. The topography and soils of the lowlands have also been shaped by glacial lakes and episodic glacial flooding. Limestone-derived soils are fine-textured, deep, and productive. As a result, much of the region was cleared for agriculture or urban development and fewer native forests remain than in surrounding ecoregions (Bryce et al., 2010).

More specifically, the Project Area is within the NYSDEC’s Ontario Lowlands ecoregion (map unit 83c). This ecoregion is defined by the extent of Glacial Lake Iroquois. The proximity to Lake Ontario tempers the climate in this ecoregion. The loamy soils of the Ontario Lowlands are derived from limestone and calcareous shale (Alfisols) and are generally deep and finely textured. Although dairy and livestock farming are common, the soils and climate of the Ontario Lowlands are also suitable for growing fruit, vegetables, and other specialty crops (Bryce et al. 2010).

Per the classification system developed by the USDA, the Project Area is within Major Land Resource Area (MLRA) 101 (Ontario-Erie Plain and Finger Lakes Region) of Land Resource Region L (Lake States Fruit, Truck Crop, and Dairy region) (USDA-NRCS 2006). This MLRA supports forest vegetation, particularly hardwoods. Typical forest types within this MLRA are elm-ash-red maple or beech-birch-sugar maple, in varying proportions. Other tree species

associated with these forest types include basswood, hemlock, white pine, black cherry, and some species of upland oak (USDA NRCS, 2006).

### **Local**

Land cover in the Project Area was determined spatially using aerial orthoimagery interpretation and preliminary on-Site ecological surveys. Based on these reviews, the vegetative cover type within the Project Area consists primarily of active agricultural land (65%) and forestland (25%), along with lesser amounts of open water (2%), successional old field (0.8%), disturbed/developed (1%), successional old-field (1%), and successional shrubland (6%). The Project Area's plant communities will be further described in the Application based on data collected during supplemental ecological resource surveys. Additionally, the Application will include a discussion of potential impacts on agricultural resources, including calculations and an assessment of the areal extent of temporary and permanent impacts, per 16 NYCRR § 1001.22(q). An evaluation of proposed agricultural restoration techniques due to temporary disturbance during construction in on-Site laydown areas will be presented in the Application.

### **Wetland Mapping and Designated Functions and Values**

During the wetland and stream delineations conducted on June 24, June 28, July 8 to 11, and July 23 to 25, 2019, it was determined that the majority of the features are located in the eastern, southern, and northwestern portions of the Project Area. The wetlands exhibited primarily palustrine emergent (PEM) and palustrine forested (PFO) cover types. Palustrine scrub-shrub (PSS) and palustrine unconsolidated bottom (PUB) wetlands were also observed within the Project Area. All the streams were classified as intermittent, which is defined as channels that contain flowing water only part of the year (Federal Geographic Data Committee, 2013). Figure 12 illustrates the NYSDEC and National Wetlands Inventory (NWI) mapped wetlands and streams within the Project Area. The full wetland and stream delineation report will be included in the Application.

Wetland biologists will assess each wetland identified within the Project Area with respect to functions and values. The assessment will be included in the Application. Functions are self-sustaining properties of a wetland ecosystem that exist in the absence of society. Functions result from both living and non-living components of a specific wetland. These include all processes necessary for the self-maintenance of the wetland ecosystem such as primary



production and nutrient cycling. Therefore, functions relate to the ecological significance of wetland properties without regard to subjective human values (USACE, 1999).

Values are benefits that derive from either one or more functions as well as the physical characteristics associated with a wetland. Most wetlands have corresponding societal value. The value of a particular wetland function, or combination thereof, is based on human judgment of the worth, merit, quality, or importance attributed to those functions (USACE, 1999). The assessment of wetland values will also be included in the Application.

The eight wetland functions typically assessed are:

- Groundwater Recharge/Discharge;
- Floodflow Alteration;
- Fish and Shellfish Habitat;
- Sediment/Toxicant/Pathogen Retention;
- Nutrient Removal/Retention/Transformation;
- Production Export (nutrient);
- Sediment/Shoreline Stabilization; and
- Wildlife Habitat.

The five wetland values typically assessed are:

- Recreation (consumptive and non-consumptive);
- Educational/Scientific Value;
- Uniqueness/Heritage;
- Visual Quality/Aesthetics; and
- Threatened or Endangered Species Habitat.

Per the United States Army Corps of Engineers (USACE), these are not necessarily the only wetland functions and values possible, nor are they so precisely defined as to be unalterable. Best professional judgment is used by wetland scientists to determine the functions and values that are assessed for each project, and the results of the assessment will be included in the Application.

### **Avoidance/Mitigation Measures**

The Project is being designed to avoid and/or minimize impacts to wetland and waterbody resources to the maximum extent practicable, and the Applicant will implement the following BMPs to further reduce the risk for impacts to water resources:

- Siting solar arrays, access roads, collection substation, tap line and POI switchyard to avoid wetlands to the maximum extent practicable
- Adhering to a practice of avoiding trenching or use of heavy equipment in waterbodies
- Restoring temporarily impacted wetlands and waterbodies to pre-construction conditions
- Implementing a SWPPP to minimize impacts, to the maximum extent practicable, to wetlands during construction
- Implementing a spill prevention and response plan and utilizing a buffer system around wetlands

The Application will discuss measures to be implemented during construction to avoid and/or mitigate impacts to the maximum extent practicable to wetland and waterbody resources.

### **Wildlife**

#### **Amphibians and Reptiles**

Amphibian and reptile distribution information for the Project Area was accessed through the NYSDEC's "Amphibian and Reptile Atlas Project" (Herp Atlas Project) website. The Herp Atlas Project was a 10-year survey from 1990 to 1999 designed to document the distribution of the approximately 70 species of amphibians and reptiles found in NYS.<sup>1</sup> The standard "unit of measurement" used to map the distribution of amphibians and reptiles is the USGS 7.5 minute series quadrangle. The Project Area is located on the Geneva North, NY 7.5-minute series quadrangles, and based on the Herp Atlas Project distribution maps, the reptiles and amphibians documented on these quadrangles include:

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<sup>1</sup>The Herp Atlas Project commenced a new 10-year survey in 2018.

**Table 2. Reptiles and Amphibians within Project Area**

Scientific Name	Common Name	7.5 Minute Quadrangle
<b>Amphibians</b>		
<i>Bufo a. americanus</i>	American toad	Geneva North
<i>Hyla versicolor</i>	Gray treefrog	Geneva North
<i>Pseudacris crucifer</i>	Northern Spring Peeper	Geneva North
<i>Rana catesbeiana</i>	American bullfrog	Geneva North
<i>Rana clamitans</i>	Green frog	Geneva North
<i>Rana sylvatica</i>	Wood frog	Geneva North
<i>Rana pipiens</i>	Northern leopard frog	Geneva North
<b>Reptiles</b>		
<i>Chelydra s. serpentina</i>	Common snapping turtle	Geneva North
<i>Clemmys guttata</i>	Spotted turtle	Geneva North
<i>Glyptemys muhlenbergii</i>	Bog Turtle	Geneva North
<i>Trachemys scripta elegans</i>	Red-eared slider	Geneva North
<i>Chrysemys picta</i>	Painted turtle	Geneva North
<i>Apalone spinifera</i>	Eastern Spiny Softshell	Geneva North
<i>Nerodia s. sipedon</i>	Northern water snake	Geneva North
<i>Thamnophis sirtalis</i>	Common garter snake	Geneva North
<i>Thamnophis sauritus</i>	Ribbon snake	Geneva North
<i>Lampropeltis triangulum</i>	Eastern milk snake	Geneva North

The Application will discuss all potential direct and indirect impacts to reptiles and amphibians, including any potential mitigation and avoidance measures to be undertaken to avoid significant impacts to the maximum extent practicable.

### Mammals

The Project Area plant habitats are typical of those that support mammals such as whitetail deer, black bear, coyote, red fox, gray fox, striped skunk, raccoon, Virginia opossum, eastern cottontail, woodchuck, eastern chipmunk, gray squirrel, red squirrel, and several species of bat, mouse, vole, shrew, and mole.

The Application will describe potential direct and indirect impacts to mammal species reasonably likely to occur on or in the vicinity of the Project Area, including any potential mitigation and avoidance measures that will be undertaken, as required or appropriate.

### Birds

The Project Area habitats are typical of those that support many common species of songbird, American crow, turkey vulture, red-tailed hawk, and American kestrel. Farm ponds located

within the Project Area may provide habitat for common waterfowl such as mallard. A bald eagle (*Haliaeetus leucocephalus*) nest has been identified by the NYS Natural Heritage Program. It is located in a tall conifer north of the intersection of two relatively trafficked roads. Bald eagles are protected under the Migratory Bird Treaty Act (MBTA) of 1918 and the Bald and Golden Eagle Protection Act (BGEPA) of 1940 under 16 United States Code (USC) § 668-668d. These acts promote conservation of migratory birds through enhanced collaboration with the United States Fish and Wildlife Service (USFWS). Compliance with both the MBTA and BGEPA are required for this Project.

The bald eagle is listed as threatened within NYS, pursuant to ECL § 11-0535, which protects eagles and their occupied habitats. Section 11-0537 protects bald eagles as well as their nests and eggs. This law makes it illegal to take, possess, sell, purchase, barter, offer to sell, transport, export, or import, at any time or in any manner bald eagles without a permit. 6 NYCRR § 182.8 also requires a department-issued permit (outside the context of Article 10) to authorize the take of any species listed as threatened. Articles 15, 24 and 25 of the ECL provide additional habitat protections. The NYSDEC Conservation Plan for Bald Eagles in New York State recommends that new utility construction occurs no closer than 660 feet from a nest with a visual buffer, and one-quarter mile if no visual buffer exists, and that no logging occurs within 660 feet of a nest during the breeding season (January 1 to September 30). It also recommends avoiding removal of overstory trees within 330 feet of a nest during the wintering period (December 1 to March 31). Review under these sections of law provides opportunities for state agency staff to evaluate proposed projects and avoid negative impacts to bald eagles and their habitats (NYSDEC, 2017).

Suitable habitat for the bald eagle includes the forested and open areas, as well as edge habitats. The BGEPA prohibits those without a permit from pursuing, shooting, shooting at, poisoning, wounding, killing, capturing, trapping, collecting, molesting, or disturbing (known as “taking”) bald eagles, including their nests, parts, or eggs (USFWS, 2014). To comply with the MBTA, construction and operation of the solar array must not directly impact migratory birds. The Applicant will consult with the USFWS and NYSDEC to determine the appropriate avoidance and/or mitigation measures necessary for Project construction.

The Application will include descriptions of potential direct and indirect impacts to other avian species reasonably likely to occur on or in the vicinity of the Project Area, including any

potential mitigation and avoidance measures that will be undertaken, as required or appropriate.

### **Natural Communities or Habitats of Special Concern**

An online review of the USFWS Environmental Conservation Online System (ECOS), and the NYSDEC Environmental Resource Mapper (ERM), indicated that there are no known significant natural communities or habitats of special concern located within the Project Area. However, the ERM indicates that the Project Area contains areas with rare plants or animals. Consultation with the New York Natural Heritage Program (NYNHP) is necessary to obtain further information. The Applicant does not anticipate adverse impacts to any federal or state-listed significant natural community, habitat of special concern, U.S. National Wilderness Area, or USFWS Critical Wildlife Habitat.

### **Threatened and Endangered Species**

#### *Federally Listed Threatened and Endangered Species*

Initial contact has been made with the USFWS through the Information for Planning and Conservation (IPaC) to identify conservation measures and evaluate potential impacts to species identified within the Project Area. The IPaC resource was used to determine the potential for federally listed threatened or endangered species, critical habitats, migratory birds, or other natural resources in the vicinity of the Project Area. The federally Threatened Northern long-eared bat and the federally Threatened bog turtle were both listed on the IPaC Official Species List (see Appendix E).

The USFWS IPaC Official Species List identified two species, the northern long-eared bat (*Myotis septentrionalis*) and the bog turtle (*Clemmys muhlenbergii*), as potentially occurring within the Project Area vicinity. The northern long-eared bat is listed as a threatened species at the state and federal levels. The northern long-eared bat is a small bat, measuring an average of approximately three inches in total length. Adults weigh between five and eight grams. The bog turtle is listed as an endangered species at the state level and a threatened species at the federal level. Adults reach a maximum length of 4.5 inches.

During the spring and summer months, northern long-eared bats spend the day roosting in trees or artificial structures, switching to a new roost every other day on average. Roost trees are defined as any tree with over three inches diameter at breast height. More specifically,

typical roost trees also contain cracks, crevices, or hollows that enable the bat to roost during the day. Most roost trees are either dead, desiccated, or contain deep furrows, hollows, or peeling bark to allow for effective roosting. In the fall, northern long-eared bats migrate to caves to hibernate over the winter months. This species typically hibernates together with much larger numbers of bats of other species, although hibernating groups of northern long-eared bats still number in the hundreds. Due to the spread of white-nose syndrome within hibernacula and this species' sharing hibernacula, northern long-eared bats (from hibernacula counts) have declined by up to 99 percent in the Northeast, causing it to be listed federally as a threatened species (USFWS, 2016).

The bog turtle is North America's smallest turtle. It generally occupies open-canopy, herbaceous wet, spring seep, sedge meadows and bogs, that are bordered by wooded areas. Ability for these wetlands to support a multitude of micro-habitats, including dry pockets, saturated areas, and areas that are periodically flooded, are vital for this species survival. These turtles depend upon this diversity for foraging, nesting, basking, hibernating, and sheltering. They are diurnal animals and need open sunny areas for basking and for incubating their eggs, which are often laid on top of sedges in early to mid-June. Bog turtles have a low production rate with only one clutch per year with approximately three eggs. They will also bury themselves in deep mud to shelter from predators and weather and will often travel in tunnels and rivulets caused by spring seeps and ground water springs. Starting in late October, these areas are where bog turtles hibernate. They emerge from hibernation by mid-April when both the air and water temperatures exceed 50 degrees Fahrenheit. They will use upland areas as transitional zones between wetlands during the breeding season to facilitate genetic diversity. Dominant threats to bog turtles include urban development and invasive plants altering their habitat, and the black market pet trade.

#### State-Listed Threatened and Endangered Species

The NYSDEC's online ERM tool was accessed for information on state-listed protected species or significant natural communities in the Project Area vicinity. The results of the ERM review indicate known occurrences of "Rare Plants and Rare Animals," but no records of significant natural communities in the vicinity of the Project. Initial contact has been made with the NYNHP on May 17, 2019 to discuss conservation measures and evaluate potential impacts to state-listed species potentially located within the Project Area.

### Grassland Breeding Birds

As the Project Area includes areas of grasslands, in May 2019, the Applicant developed a Grassland Breeding Bird Survey (BBS) Study Plan to describe the approach for determining presence and site use by state-listed threatened/endangered and rare grassland bird species during the breeding season (see Appendix F). The Work Plan was submitted to NYSDEC for review, and input provided by NYSDEC was incorporated into the plan.

Field surveys were conducted on a weekly basis from May 20 to July 20, 2019. The results of these surveys are currently being assessed and a report summarizing the findings is being prepared. Preliminary results from the field surveys illustrate that the highest avian diversity and use was concentrated in areas with a higher percent of grass cover. No state-listed Endangered or Threatened species were observed. Two state-listed Species of Special Concern, vesper sparrows, and horned larks, were observed. The state-threatened bald eagle was observed incidentally. The development of the Project is not expected to affect endangered or threatened grassland breeding birds. Direct impacts to the observed species as a result of the Project are expected to be minimal. When complete, the final report will be submitted to NYSDEC, subject to any required confidentiality protections, and will be included in the Application.

### **Winter Raptor Survey**

As the Project Area includes areas of grasslands, the Applicant will develop a Winter Raptor Survey (WRS) Site-Specific Work Plan to describe the approach for determining presence and site use by state-listed threatened/endangered and rare winter raptor species. Field surveys will be conducted weekly from November 15, 2019, through March 31, 2020. The results of these surveys will be assessed and a final report summarizing the findings will be submitted to NYSDEC, subject to any required confidentiality protections, and will be included in the Application as well as an assessment of any potential impacts to winter raptor species habitat as a result of the Project.

### **Invasive Species Management**

The Application will include a comprehensive list of the invasive plant species that were observed within the anticipated limits of disturbance during the field investigations. Invasive species are known to spread through vectors such as construction vehicles and equipment. In order to mitigate this potential, the Application will incorporate an invasive species

management and control plan (ISMCP), which will include measures to educate workers, mitigate the risk of imported fill introducing invasive species, clean equipment effectively, develop site grading plans and erosion and sediment control plans (ESCPs) designed to mitigate the chance of spreading invasive species, and also establish a monitoring regime for invasive species spread post-construction.

Currently, the Applicant does not plan to conduct large scale transportation of fill material to, from or within the Project Area. As such, the potential to spread invasive species by this mechanism is presumed to be negligible for this Project. If transported fill is deemed necessary, the Applicant will require all contractors to assure that all imported fill is free of invasive species prior to use. Furthermore, it is currently anticipated that fill will not need to be transported off the Project Area. Remnant stockpiled materials are planned to be spread as part of restoration.

### **Proposed Studies**

The Applicant proposes to collect, evaluate, and provide the following information to support and prepare Exhibit 22 of the Application in accordance with 16 NYCRR § 1001.22:

- (a) An identification and description of the type of plant communities present in the Project Area, the interconnections, and adjacent properties, based upon field observations, desktop review of literature and data collection, consistent with the nature of the site and access control to adjacent properties. The observation date for each species will be included as part of the plant community descriptions. The Application will also include maps and shapefiles depicting plant communities identified within the Project Area, electric interconnection lines, and adjacent properties (based upon roadside surveys).
  - (i) The list will include specific information on, and a detailed description of, all communities found within parcels that will host Project components based on communities described in the Ecological Communities of New York State (Edinger et. al., 2014). For each community identified, Heritage Program Element Ranks will be provided.
  - (ii) Maps of the Project Area at a scale of 1:6,000 (1":500'), based on aerial photography, and National Land Cover Database (NLCD) information showing



approximate locations and extent of identified plant communities as classified according to Ecological Communities of New York State (Edinger et al., 2014).

(iii) Maps at a scale of 1:1,200 (1":100') showing approximate locations and extent of identified plant communities as classified according to Ecological Communities of New York State (Edinger et al., 2014) for Project Areas within 500 feet of disturbance. Plant communities for parcels outside the Project Area on which the Applicant does not have control will be determined as identified through the NLCD, and observations made from publicly accessible roads, as feasible.

(b) An analysis of the temporary and permanent impact of the construction and operation of the Project and the interconnections on the vegetation identified, including a mapped depiction of the vegetation areas showing the areas to be removed or disturbed, and including a plan to identify the presence of invasive species and to prevent/mitigate the introduction and/or spread of invasive species.

(i) Proposed temporary and permanent impacts to plant communities shall be calculated and discussed including:

- A discussion of specific assumptions associated with approximate limit of vegetation clearing for each type of Project component as identified in the preliminary design drawings associated with Exhibit 11;
- A table listing area assumptions used to determine vegetation disturbance by component (e.g. solar panel installations, roads, collection lines, staging area, collection substation, switchyard, and tap line);
- The number of acres of each habitat type impacted, calculated using GIS software, and presented in a summary impact table. Permanent impact calculations will include all tree clearing and other cover type conversion for construction and operation of the Project; and
- The plant community mapping will also depict vegetation cover types and any concentrations of invasive species in relation to proposed limits of vegetation disturbance, and associated GIS shapefiles of all areas of disturbance will be provided to NYSDEC and DPS, and to any

intervening parties upon written request, subject to any confidentiality limitations.

- (ii) An overview of vegetation management plans for operation and construction of the Project, including a discussion of ground cover maintenance and forest clearing and ongoing vegetation maintenance required to prevent shading of solar panels.
- (c) An identification and evaluation of reasonable avoidance measures or, where impacts are unavoidable, mitigation measures, including use of alternative technologies, that will be implemented to avoid, minimize, and potentially mitigate, to the maximum extent practicable, for any temporary and permanent impacts to existing, non-invasive plant communities (particularly grasslands, interior forests, wetlands, shrublands, young successional forests), as a result of the construction, and operation of the Project.
  - (i) A discussion of measures to be included to avoid and minimize impacts to vegetation such as co-locating linear Project components, and constructing all panels, buildings, storage areas, and other structures in areas already developed or disturbed, to the maximum extent practicable.
  - (ii) A discussion of measures for post-construction vegetative restoration will be included such as reseeding disturbed areas with appropriate native seed mix or planting native woody species, as necessary, to recreate or enhance wildlife habitat and agricultural uses outside fenced areas.
  - (iii) A summary impact table quantifying anticipated temporary and permanent impacts associated with the various facility components in relation to Project Area wildlife habitats and vegetation cover types classified according to Ecological Communities of New York State (Edinger et al., 2014), particularly grasslands and interior forests, if affected.
  - (iv) A characterization of the Project Area and any areas to be disturbed for interconnections as to the vegetation, wildlife (including mammals, birds, amphibians, terrestrial invertebrates, and reptiles) and wildlife habitats, that occur in, on, or in the vicinity based on reconnaissance or multi-season surveys and data collection appropriate to the nature of the site, supplemented by

available data from the NYNHP, NYS Amphibian and Reptile Atlas Project, the NYS Breeding Bird Atlas (BBA) and range maps, BBS Routes, Christmas Bird Counts (CBC) and other similar reference sources, including time and date (i.e., day, month and year) of observation, to the extent time and dates are available. This will also include an identification and depiction of any unusual habitats or significant natural communities that could support state or federally listed endangered or threatened species or species of special concern (SSC). Note that wetlands are addressed separately in paragraphs (h) through (m). Characterization will include;

- Assessments of suitable habitat within the Project Area, and an identification and depiction of any unusual habitats or significant natural communities that could support state or federally listed endangered or threatened species or species of special concern.
- For the specific surveys identified and where draft reports to be submitted to NYSDEC have been identified, the Applicant will provide said draft reports to the NYSDEC, as soon as possible, when finalized.
- A discussion of the extent, methodology, and results of all avian, bat, amphibian, and other wildlife surveys that have been and will be conducted within the Project Area and Study Area will be included, as applicable. Information on and a characterization of aquatic and terrestrial vegetation, wildlife and wildlife habitats that occur within the Project Area will be included, specifically an identification and description of plant communities, plant species and wildlife habitat. Such descriptions will include field identification and verification of aquatic habitats, plant communities, and other wildlife habitat that could potentially support federally or state-listed threatened and endangered (T&E) species, SSC, and species of greatest conservation need (SGCN) as documented during on site field investigations (e.g., ecological cover type assessments, habitat assessments, and wetland delineations). Habitat identification will include the results of field studies, the Grassland BBS, and WRS. Coordination with USFWS, NYSDEC staff, and NYNHP database to document known occurrences of bat species in the Study Area, and relevant, applicable information

regarding terrestrial vegetation, wildlife and wildlife habitats will be provided in the Application; and

- A discussion of the potential impacts of perimeter fencing of the Project on wildlife movements, and opportunities for minimizing adverse impacts, to the maximum extent practicable.

(d) The Application will include an inventory of and information on plant species and wildlife species (mammals, birds, terrestrial invertebrates, amphibians, and reptiles (herpetofauna)) known or reasonably likely to occur within the Project Area and areas to be disturbed for interconnections at some time during the year based on site observations as well as existing data available from the following sources: NYNHP; NYSDEC; USFWS; local bird and wildlife experts; NYS Amphibian & Reptile Atlas; BBA; USGS BBS; CBC; Hawk Migration Association of North America (HMANA); eBird; The Nature Conservancy surveys and reports; county-based hunting and trapping records maintained by NYSDEC, and supplemented by reasonably available public information, including those identified in paragraph (d) above, and/or not already listed in this paragraph. On site field surveys (e.g. avian and bat surveys, amphibian and reptile surveys, ecological cover type assessments, habitat assessments, wetland delineations, etc.) and the availability of suitable habitat, as applicable, will also be used to identify species that could potentially occur within or in near the Project Area at some time during the year, as applicable. The inventory will specify whether species were observed, known to occur in Project site, or are predicted to occur based on habitat characteristics and historical records. Information on terrestrial invertebrates should be limited to a general discussion regarding the range of species likely to occur near the Project.

(e) A narrative analysis and associated mapping to explain and illustrate potential and expected construction, operation, post-construction restoration, and maintenance impacts of the Project and interconnections on vegetative cover types, wildlife (reptiles, amphibians, mammal species, and avian species), wildlife habitats (including a discussion of impacts from functional loss and degradation of habitat, forest and grassland fragmentation, and wildlife displacement, as applicable), wildlife conservation areas, including the Finger Lakes Region Grassland Focus Area (USDA, 2005), and wildlife travel corridors, if identified, and terrestrial and aquatic organisms.

This will include a detailed assessment of direct and indirect impacts and identification and evaluation of the expected environmental impacts of the Project on NYS SSC, SGCN, and T&E species protected by state and federal law and the habitats of such species. Given the provisions of § 3-0301(2)(r) of the Environmental Conservation Law (ECL) and § 15 of the PSL, information that identifies the locations of habitats of such species or any other species or unique combination of species of flora or fauna where the destruction of such habitat or the removal of such species there from would impact their ability to survive, shall not be disclosed to the public and shall only be disclosed to the parties to a proceeding pursuant to an appropriate protective order. The Application will also include the following analyses:

- (i) Bat and Avian analyses, specifically BBSs and WRSs, were conducted. Grassland BBS were conducted from May 21 to July 20, 2019 in accordance with a work plan reviewed by NYSDEC. The scope included property under the Applicant's control or visible from public roads as identified in the work plan submitted to NYSDEC. Draft reports of the BBSs and WRSs will be provided to NYSDEC for review and comment. Final reports for both studies incorporating any comments provided by NYSDEC, (if practicable, upon notice to NYSDEC as to the estimated filing date of the Application) will be provided in the Application and will include an assessment of any potential direct and indirect impacts to grassland bird species habitat as a result of the Project. In addition, a discussion and analysis of any bat and avian information relevant to the Project Area that is provided by NYSDEC or USFWS prior to the submission of the Application will be included (if practicable, upon notice to NYSDEC and USFWS as to the estimated filing date of the application).
- (ii) USFWS, NYSDEC staff, and NYNHP database information will be used to determine if any bat hibernacula or maternity roosts are located within the Study Area. If hibernacula or roosts are identified within five miles from the Project Area or any Project component or boundary, the location and distance to each identified hibernaculum and roost will be provided separately and confidentially to NYSDEC.
- (iii) Information on amphibians and reptiles based on the New York State Amphibian & Reptile Atlas Project (Herp Atlas), database records obtained from NYNHP, NYSDEC and USFWS, assessments of suitable habitat within the Project Area, and any field observations made within the Project Area will

be provided. To the extent that vernal pools and their functions (including the surrounding upland habitat) may be impacted by construction, operation or maintenance of the Project, those features will be identified under appropriate seasonal conditions, and these impacts will be identified and assessed in the Application. Such impacts may require, in consultation with NYSDEC and DPS, the development and implementation of site-specific surveys for amphibian and reptile species under appropriate seasonal conditions to fully quantify the level of impact from the Project.

- (iv) The Application will discuss potential construction-related direct and indirect impacts to wildlife (reptiles, amphibians, mammal species, and avian species) and wildlife habitat, including but not limited to incidental injury and mortality due to construction activity and vehicular movement, habitat disturbance and loss associated with vegetation clearing and earth-moving activities, and the displacement of wildlife from preferred habitat, likely to occur within the Project Area, including any potential mitigation and avoidance measures that will be undertaken. The NYSDEC Region 8 Wildlife Office will be contacted to obtain the most recent breeding, wintering, and habitat data for state-listed species, and the USFWS Field Office in Cortland, New York will be contacted to obtain the most recent breeding, wintering, and habitat data for federally listed and protected species, and such information that is provided by NYSDEC or USFWS prior to the submission of the Application will be included (if practicable, upon notice to NYSDEC and USFWS as to the estimated filing date of the Application).
- (v) The Application will include a summary impact table that quantifies anticipated temporary and permanent impacts associated with all Project components in relation to wildlife habitats, identified concentration areas or travel corridors, and vegetation cover types, particularly grasslands, interior forests, and young successional forests, if affected.
- (vi) In addition to site-specific field studies, a literature review of reasonably available public information will be used to assess impacts to wintering and breeding grassland bird species resulting from the construction, operation, post-construction restoration, and maintenance of the Project. Based upon the aforementioned literature review, the Application will include a discussion of the potential population-level effects habitat loss is likely to have

on grassland bird species within the two-mile Project Study Area and at a regional scale due to the proposed Project. All such analyses described in 22(f) will take into account the estimated impacts associated with the overhead transmission tap line and related facilities to be constructed, if applicable.

- (vii) The assessment of herbicide application, if determined necessary, will consider the potential for short- and long-term impacts to plants, crops (human and livestock), grazing lands, animals (both livestock and wildlife), and habitats in the Project Area, as applicable, as well as trees, ground cover, and other vegetation planted as part of restoration, mitigation, and habitat enhancement activities, as applicable.
- (viii) The Application will discuss potential operational and maintenance-related direct and indirect impacts related to the reptiles, amphibians, mammal species, and avian species likely to occur within the Project Area, including any documented wildlife corridors or conservation areas.
- (ix) A discussion of the potential impacts of the Project on wildlife species and the habitats that support them within the Study Area.
- (x) If it is determined that a “take” of a threatened and/or endangered species will be caused by the construction, operation, post-construction restoration, or maintenance of the Project within the meaning of 6 NYCRR Part 182, a full post-construction monitoring plan will be developed prior to the start of construction and submitted in the Compliance Filing for approval. The application will also include information associated with a proposed post-construction monitoring plan to be implemented to assess direct and indirect impacts of the Project on wildlife species and their habitats. The details of a full post-construction monitoring plan will be developed on a site-specific basis through discussions between NYSDEC, the Applicant, and USFWS (if federally listed species may be impacted), and at a minimum specify the following: the expected and allowed level of take of each T&E species that may be impacted; survey monitoring methods, effort, duration, data reporting and compliance documentation; construction parameters; proposed adaptive management responses, if applicable, and; mitigation measures sufficient to ensure the Application complies with the substantive requirements of 6 NYCRR Part 182. A full post-construction monitoring plan will be developed prior to the start

of construction, approved by NYSDEC, and submitted in any required Compliance Filing.

(xi) A cumulative impact analysis will be done to evaluate the actual and expected impacts from the construction, O&M of the Project on federally and state-listed threatened or endangered species, particularly grassland birds, in combination with the impacts of proposed and operating energy projects greater than or equal to 5 MW occupying grassland habitat within 100 miles of the Project Area based exclusively upon the NYSDEC database to be provided to the Applicant, and any publicly available information the Applicant, in its sole judgement, chooses to employ (the Study Projects) but not beyond NYS borders (Grassland Study Area). The Applicant is not required to perform other avian studies at the Study Projects and reserves its right to object to any requests for cumulative studies. This analysis will include, at a minimum:

- Examination of open and grassland habitat data on the Study Projects within the Grassland Study Area, relying exclusively on the NYSDEC database to be provided to Applicant and any publicly available information the Applicant, in its sole judgement, chooses to employ. The Applicant is not required to make Freedom of Information Act requests;
- Estimated take of state-listed T&E bird species and their habitats at the Project, if any, and a description of methods used, and sources consulted to estimate take;
- Estimates of available open and grassland habitat within the Grassland Study Area;
- Estimates of acres of grassland breeding bird habitat lost directly through installation of panels and other project components at the Study Projects, using best available information or typical industry solar land use metrics;
- Estimates of acres of grassland habitat indirectly affected by the Study Projects due to functional loss/degradation of habitat; and
- Cumulative impacts of grassland habitat use, particularly potential impacts on state-listed grassland bird species, within the Project Area.



- (f) An identification and evaluation of reasonable avoidance measures or, where impacts are unavoidable, measures to minimize, to the maximum extent practicable, impacts during siting and development of the Project, including the use of alternative technologies, regarding impacts to vegetation, wildlife, and wildlife habitat. The Project design, construction controls, and operational, post-construction restoration, and maintenance measures that can be reasonably implemented to first avoid to the maximum extent practicable, then minimize and mitigate for impacts to wildlife and wildlife habitat as a result of construction, operation, post-construction restoration, and maintenance of the Project will be described. If such impacts cannot be demonstrably avoided to the maximum extent practicable, a discussion of the necessity of any mitigation measures will be discussed to address habitat loss, fragmentation, displacement, and mortality will include careful site design while adhering to designated construction limits and seasonal restrictions, and other BMPs. If any demonstrably unavoidable impacts are anticipated to listed T&E species or their habitats as a result of the Project, a commitment to mitigate in an appropriate and timely manner will be included. Such mitigation will be determined only after avoidance and minimization measures are evaluated and will result in a net conservation benefit to the target species.
- (g) Specific impacts to avian and bat species related to wind-powered facilities is not applicable to this Project.
- (h) A map, at a scale of 1":100' or similar, showing delineated boundaries based on on-Site identification of all federal, state and locally regulated wetlands present on the Project Area and within 500 feet of areas to be disturbed by construction, including the interconnections, for land under control by the Applicant. The map will also include an estimation of the presence and extent of wetlands located greater than 500 feet from the areas to be disturbed, on land controlled by the Applicant, or are located within 500 feet of the limits of areas to be disturbed but are on parcels over which the Applicant does not have control. The estimations may be based on remote-sensing data, interpretation of published wetlands and soils mapping and aerial photography. This methodology is consistent with the USACE Wetland Delineation Manual (Environmental Laboratory, 1987), the appropriate

Regional Supplement to the Corps of Engineers Wetland Delineation Manual, the New York State Freshwater Wetlands Delineation Manual (Browne et. al,1995), and the recent DPS Staff interpretation dated May 31, 2018, concerning the delineation of all federal, state and locally regulated wetlands present on the site and within 500 feet of areas to be disturbed by construction. Additionally:

- (i) All wetlands in the Project Area, including those within 50 meters of a NYSDEC-mapped wetland, regardless of size or connectivity, will be delineated and included in field mapping. Detailed location maps and ecological characterization data for all vernal pools located within 500 feet of related disturbances on all Project parcels will be included. Any part of the 500-foot survey area which falls outside of the Project parcels, without accessibility, will be estimated within 500 feet of the limits of disturbance;
- (ii) Wetland estimation will only occur for areas located within 500 feet of areas to be disturbed by the Project and will be made using one or more of the following techniques: on site observations, observations made from public roads and adjacent Project parcels, interpretation of aerial imagery, analysis of topography, existing databases of hydric soils, other remote-sensing data as available, and, wetland and soils mapping maintained by NWI and NYSDEC. Wetlands identified using one or more of the techniques described will be referred to as “predicted wetlands;”
- (iii) Wetland boundaries will be defined in the field by sequentially numbered pink surveyor’s flagging marked “wetland delineation”, the locations of which will be documented using GPS technology with reported sub-meter accuracy. Wetlands identified by these methods will be referred to as “delineated wetlands,” and wetlands that are verified by the USACE and the NYSDEC will be referred to as “jurisdictional wetlands.” On site field delineations shall include boundary flagging of all 100-foot wetland adjacent areas where such flagging does not interfere with currently active agricultural practices. All remaining 100-foot wetland adjacent areas boundaries will be flagged prior to construction/ground disturbance when agricultural practices are no longer active;
- (iv) Information indicating which delineated wetlands are likely NYSDEC regulated, including those that are part of wetland complexes that meet NYS-

criteria for jurisdiction (i.e. 12.4 acres or larger, of unusual local importance and/or support listed species) whether currently mapped or not, will be included. All NYS-regulated wetlands will be identified by NYSDEC's wetland identification number in addition to the code assigned by the Applicant during delineation. The Applicant will coordinate with the NYSDEC and USACE, so the agencies may make final wetland jurisdictional determination of field verified, mapped, and unmapped wetlands. The Application shall include information concerning the jurisdictional status of wetlands that is provided by NYSDEC or USFWS prior to the submission of the Application (if practicable, upon notice to NYSDEC and USFWS as to the estimated filing date of the Application); and

(v) The Applicant will provide NYSDEC and DPS with maps and shapefiles depicting the boundaries of all wetlands, jurisdictional wetlands, predicted wetlands, and all corresponding adjacent areas within the entire Project upon finalization. All wetland boundaries will be keyed to the submissions described in Exhibit 11 (Preliminary Design Drawings). The "predicted wetland" boundaries shown on site plans should be differentiated from field "delineated wetland" boundaries when displayed on maps, site plans, and shapefiles. Maps and shapefiles showing the boundaries of all delineated wetlands, jurisdictional wetlands, predicted wetlands, and all corresponding adjacent areas within the entire Project should also include all Project components; proposed grade changes; the limits of ground disturbance and vegetative clearing.

- (i) A description of the characteristics of all federal, state and locally regulated wetlands delineated as described above, including the Cowardin classification, and a description of the vegetation, soils, and hydrology data collected for each of the wetland sites identified, based on actual on site wetland observations. Copies of all wetland determination data forms, compiled into a Wetland and Stream Delineation Report, will be included in the Application.
- (j) A qualitative and descriptive wetland functional assessment, including seasonal variations, for all wetlands delineated above for groundwater recharge or discharge, floodflow alteration, fish and shellfish habitat, sediment or toxicant retention, nutrient

removal, sediment or shoreline stabilization, wildlife habitat, recreation, uniqueness or heritage, visual quality or aesthetics, and protected species habitat.

- (i) Vernal pools will be inventoried. The Application will identify vernal pools that could be disturbed by construction operation of the Project. A discussion will be included that evaluates the use of the identified vernal pools by amphibians and the potential impacts to those species. Such evaluation of impacts may require, in consultation with NYSDEC and DPS, the development and implementation of site-specific surveys for amphibian and reptile species under appropriate seasonal conditions in order to fully quantify the level of impact from the Project.
- (k) An analysis of all wetlands outside of the Project Area that may be hydrologically or ecologically influenced by the development of the Project Area and the wetlands identified above, observed in the field where accessible to determine their general characteristics and relationship, if any, to wetlands delineated as above. A wetland and waterbody delineation report will be included as an attachment to the Application and will include an analysis of the potential hydrologic connectivity of all wetlands within the Project Area to adjacent off site wetlands and will include a summary of those wetlands anticipated to fall under NYSDEC jurisdiction and USACE jurisdiction. Assessments of potential NYS wetlands jurisdiction will include both “mapped” and delineated wetlands that meet NYSDEC’s 12.4-acre size threshold (including any wetlands of any size separated by less than 50 meters which function as a unit in providing wetland benefits, within the meaning of 6 NYCRR Part 664.3(b), or otherwise meet NYS criteria for jurisdiction over a wetland (see 6 NYCRR § 663.2(p)).
- (l) An identification of temporary and permanent impacts to wetlands and any state-regulated 100-foot adjacent areas based on the proposed footprint of all Project components and associated impact assumptions. A summary and table will be included in the Application to identify and quantify temporary and permanent impacts to, and any permanent conversions of wetlands and NYS-regulated 100-foot adjacent areas based on the proposed footprint of all Project components and associated impact assumptions. The table will also indicate permanent forest conversion, if any, caused as a result of the construction or maintenance of the Project. For each

resource included in the temporary and permanent impact table, the following information will be included as determined applicable:

(i) Wetland impacts will be presented in a table that will include:

- All state-regulated and jurisdictional wetlands, federal wetlands, streams, and environmentally sensitive areas that could potentially be impacted by the proposed Project as depicted in preliminary design drawings or wetland delineations;
- Applicant-assigned wetland identification code, NYSDEC wetland identification number, NYSDEC wetland classification, and NYSDEC stream classification;
- A description of the type and acreage of impact including; permanent, temporary, fill, forest conversion, and including vegetative cover type affected by each impact;
- The associated crossing methodology for each wetland, clearly discerning between federal and state wetland and 100-foot adjacent area impacts;
- Calculation of impacts to both wetlands and 100-foot adjacent areas of state regulated wetlands;
- The wetland delineation type (i.e. field survey, review of aerial imagery, roadside observation, etc.);
- For each resource, an explanation of if it could reasonably be avoided;
- Propose site specific actions to minimize impacts to resources that are not bypassed, to the maximum extent practicable; and
- Identify the corresponding page number on preliminary design drawings depicting the resource, and on the mapping described below.

(ii) Impacts to wetlands will be presented on a separate set of site plan drawings at 1":100' scale (or similar), showing wetland and stream boundaries, permanent and temporary structures, stream crossings, roads, power interconnects, grade changes, and the limits of disturbance.

(iii) For each item identified in the table described in 22(m)(1) above, the following will also be provided, as applicable:

- Explanation of whether the resource could reasonably be avoided;
- Proposed site-specific actions to minimize impacts, to the maximum extent practicable, to resources that are not avoided;
- Proposed site-specific actions to mitigate impacts that are not avoided to the maximum extent practicable; and
- Proposed appropriate compliance monitoring schedule to ensure mitigation is successful, including adaptive management actions to be implemented should the planned mitigation fail;

(m) An identification and evaluation of reasonable avoidance measures or, where impacts are unavoidable, mitigation measures to be employed to offset impacts to streams, wetlands, and 100-foot adjacent areas will be discussed, including the use of alternative stream and wetland crossing methods, alternative technologies, and control of potential phosphorus and nitrogen sources from the Project. The Application's discussion of avoidance and minimization will be updated, if necessary, upon final verification of wetland boundaries and jurisdictional determinations. Final impact calculations to the 100-foot adjacent area of NYS-regulated wetlands and associated mitigation will be based on verified delineation boundaries for jurisdictional wetlands. Where appropriate, mitigation shall include plans for compensatory mitigation. Such plans shall contain sections on grading, planting, and monitoring for success.

(i) Where impacts to wetlands are unavoidable, and have been minimized to the maximum extent practicable, the anticipated mitigation measures to be implemented to offset impacts to wetlands and NYS-regulated 100-foot adjacent areas will be discussed, including the use of reasonable alternative stream and wetland crossing methods. A conceptual mitigation plan for impacts to NYS-regulated wetlands and adjacent areas will be included in the Application pursuant to 6 NYCRR § 663.5(g) and at a minimum, will meet the following provisions:

- The mitigation occurs on or in the immediate vicinity of the Project (preferably elsewhere in the same wetland).
- The area affected by the proposed mitigation is regulated by the Freshwater Wetlands Act and 6 NYCRR Part 663 after mitigation measures are completed.
- The mitigation provides substantially the same or more benefits than will be lost through the proposed activity.
- A final mitigation plan, as applicable, will be provided in the Compliance Filing after consultation with the NYSDEC and USACE.

(ii) Off-Site mitigation will only be considered if:

- The analysis being provided shows that all options within the immediate vicinity were thoroughly evaluated and determined to not be feasible;
- A discussion of avoidance and minimization efforts considered is provided. This should indicate methods to be implemented to avoid wetland and stream impacts as well as address the methodology and a description of Project construction and operation, relating to the standards established by ECL Articles 15 and 24;
- A statement and discussion regarding the Applicant's consideration of the following impact avoidance and minimization measures will be included in the Application: utilizing existing or narrow crossing locations wherever possible, alternative siting or routing options, trenchless crossings (such as HDD or other special crossing techniques), equipment restrictions, herbicide use restrictions, and erosion and sedimentation control measures; and
- The Application will describe the anticipated environmental compliance and monitoring programs to be implemented during Project construction, demonstrating adherence to all relevant permit conditions to protect wetlands, streams, and other waterbodies. The program will include an Environmental Monitor(s) during construction and restoration activities on the Project site, and a description of the Environmental

Monitor's duties. The program will describe the locations of all staging areas, temporary spoil, or woody debris stockpiles, "extra work" areas, and other places material or equipment may be placed on-Site. The limits of disturbance around all such areas will be clearly defined in plan maps, and physically marked in the field using orange construction fencing or other similar indicators. Plans to restore all temporary disturbances in regulated areas, including replanting trees in disturbed forested areas, will be provided. The final programs will be submitted in the Compliance Filing.

- (n) An identification of state and federal endangered or threatened species, SSC or SGCN within the Project Area or that could be subject to impacts from the Project construction, operation, or maintenance, including incidental takings, and an endangered or threatened species mitigation plan, if applicable. Additionally:
  - (i) If impacts within the Project Area are unavoidable, a clear and reasoned explanation will be provided as to why complete avoidance of impacts to each affected species is not practicable, how the proposed minimization actions will minimize impacts to the maximum extent practicable, and proposed mitigation actions where impacts cannot be avoided or secondly minimized. If any such impacts cannot be demonstrably avoided to the maximum extent practicable, minimization actions and mitigation measures to be implemented will be developed in consultation with NYSDEC, DPS and USFWS (if federally listed species may be impacted) to result in a net conservation benefit to the target species, and thorough post-construction monitoring will take place to adequately measure the Project's direct and indirect impacts on the target species and evaluate the effectiveness of measures implemented as minimization actions;
  - (ii) Analysis and documentation of T&E species, SSC, and SGCN will be included based on database records obtained from the NYNHP, other known records documented by NYSDEC, USFWS, (if practicable, upon notice to USFWS as to the estimated filing date of the application) and observation during on-Site wildlife and habitat, ecological, and wetland surveys. If it is determined a "take" of a listed T&E species is unavoidable, including the



modification of habitat on which a listed T&E species depends, an avoidance, minimization, and mitigation plan that demonstrates a net conservation benefit to the affected species as defined pursuant to 6 NYCRR Part 182.11, along with the informational requirements of an Incidental Take Permit as provided for in 6 NYCRR Part 182.11, including proposed actions to first avoid all impacts to listed T&E species will be prepared. The Application will include a discussion and analysis of information collected as part of pre-construction monitoring surveys, identified previously, within the Project Area; and

(iii) A table of state-listed species, federally listed species, SSC, and SGCN, occurring or likely to occur within the Project Area will be included, with the following columns:

- Species name
- Federal status
- NYS status
- SSC/SGCN listing
- Habitat preference identified according to Ecological Communities of New York State (Edinger et al., 2014)
- Identification of maps from 16 NYCRR § 1001.22(a)(3) that include habitat for each species;
- Source of information indicating potential or documented presence of species
- Indication if species was observed on site
- Discussion of the type of impact (direct and/or indirect) that may occur to each listed species
- Estimated take of each listed species (if applicable)
- Evaluation of all impact avoidance measures considered and, if full avoidance is not feasible, a discussion of why such actions are not practicable

(o) An ISMCP indicating the presence of invasive species and measures that will be implemented to minimize, to the maximum extent practicable, the introduction of new invasive species and spread of existing invasive species during soil disturbance, vegetation management, transport of materials, and landscaping/revegetation. The

ISMCP will address species that were both identified in the invasive species concentration areas during the wetland delineation effort within the Project Area as well as those listed in 6 NYCRR Part 575. Management and control measures included in the ISMCP will vary depending on invasive species type identified during the aforementioned field efforts. The ISMCP will include:

- (i) A list of all invasive plant species observed during field investigations and known to occur within the Project Area. The list of invasive plant species in areas of proposed disturbance shall be based on observations recorded concurrent with field surveys;
- (ii) For areas of high invasive species density and as useful for management of individual invasive species, identification of an area and concentration threshold that requires mapping and an individual management plan. GIS files of such concentration areas will be provided to NYSDEC;
- (iii) A list of invasive species other than plants included in 6 NYCRR § 575.3 and § 575.4, if any, limited to those incidentally observed during field work, including maps at a scale of 1:1,200 of any identified concentrations of non-native invasive species in areas of proposed disturbance. Additional invasive species not included on this list (e.g. wild parsnip, reed canary grass) may also warrant specific management and control measures, depending on current populations of such species within and nearby the Project Area; and
- (iv) A final ISMCP shall be included in any required Compliance Filing, or a filing with the Secretary, as applicable. Specifically, the plan will apply to all prohibited and regulated invasive species and include the following:

- A summary of the survey methods to be used to identify and mark existing non-native invasive species within the Project Site (i.e. baseline survey), including the transmission line corridor (if applicable). A field verification of the location(s) of invasive species conducted during the growing season immediately prior (within at least six months) of the start of vegetation or ground disturbance activities;
- An action plan for pre-construction management of non-native invasive species, including threshold for action. Specific methods to be used to ensure that packing material, imported fill and fill leaving the Project site

will be free of non-native invasive species material, seeds, and parts to the extent practicable;

- Specification on how fill materials to be placed within the Project Site will be free of non-native invasive species material, seeds, and parts, by source inspection or other method, or only used within areas already containing those specific non-native invasive plant and invertebrate species infestation;
- Detailed description of specific measures that will be used to prevent the introduction, spread, and proliferation of all non-native invasive species due to the implementation of the Project's grading, and ESCP;
- Details of procedures for preventing the spread of invasive invertebrates and diseases, and a discussion of how the Applicant will comply with the NYS quarantine and protective zones, where applicable;
- Detailed plans describing how appropriate measures will be implemented to ensure that equipment and personnel arrive at and depart from the Project Site clean and free of all non-native invasive species material, seeds, and parts. The protocol for inspection of equipment arriving at the Project Site will be provided in the Application;
- A detailed description of cleaning procedures for removing non-native invasive species material, seeds, and parts from equipment and personnel, and properly disposing of materials known to be or suspected of being infested;
- Detailed description of the BMPs or procedures that will be implemented, and the education measures that will be used to educate workers;
- Detailed description of a minimum of 5-year post-construction monitoring and corrective action plan, to achieve the goal of no new invasive species in the Project area and no new locations of existing invasive species in the Project area, and survey measures and procedures for revising the ISMCP in the event that the goals of the initial plan are not met within a specified timeframe;
- Anticipated methods and procedures used to treat non-native invasive species that have been introduced or spread as a result of the

construction, operation, or maintenance of the Project (based on comparisons against the baseline survey); and

- Landscape re-vegetation plans, including specification of native seed mix to be used, as appropriate.

(p) An analysis of the temporary and permanent impacts of the construction and operation of the Project and interconnections on agricultural resources, including the current agricultural use of the Project Area, if any, including the acres of agricultural land temporarily impacted, the number of acres of agricultural land that will be used for Project Components for the economic life of the Project, and mitigation measures to minimize the impact to agricultural resources, to the maximum extent practicable. This analysis will include reference to the 2018 or latest edition of the NYSDAM's Guidelines for Agricultural Mitigation for Solar Energy Projects. If for any reason the guidelines cannot be met, the NYSDAM will be contacted to discuss applicable alternatives.

### 3.23 Aquatic Ecology and Water Resources (Exhibit 23)

Exhibit 23 of the Application will include a review of the Project Area's surface water resources, groundwater resources, and associated aquatic ecology. The review will involve a summary and mapping of existing conditions, an in-depth impact analysis of the Project, and will outline impact avoidance and mitigation measures to be undertaken by the Applicant.

#### **Groundwater**

A preliminary review of the Project Area indicates that the depth to the water table for 22 of the soils mapped in the Project Area by the NRCS ranges from 0 inches (surface) to 36 inches, and three soils mapped have a depth to water table greater than 80 inches. All of the map units are listed as having a depth to a restrictive layer of greater than 80 inches (USDA NRCS, 2019).

Primary aquifers are defined by the USGS and the NYSDEC as "*highly productive aquifers presently utilized as sources of water supply by major municipal water supply systems*" (NYSDEC, 1990). Based upon preliminary review of agency mapping, the Project Area does not contain any portion of a primary aquifer. The closest primary aquifer is the Irondegenesee Aquifer, the boundary of which is approximately 23.2 miles northwest of the Project Area, generating within the Town of Victor, Ontario County, New York (NYSDEC, Primary and Principal Aquifers).

Principal aquifers are defined as "*aquifers known to be highly productive or whose geology suggests abundant potential water supply, but which are not intensively used as sources of water supply by major municipal systems at the present time*" (NYSDEC, 1990). Based upon preliminary review of the NYSDEC's Environmental Assessment Form (EAF) Mapper, the Project Area does not contain any portion of a principal aquifer.

The USGS Interactive Aquifer Map Viewer (<https://ny.water.usgs.gov/maps/aquifer/>) indicates the presence of unconsolidated stratified-drift groundwater aquifers beneath the Project Area (Figure 10).

The Application will provide maps based upon publicly available information and the preliminary geotechnical investigation to depict depth to the water table, depth to bedrock, groundwater aquifers, and groundwater recharge areas for the entire Project Area.

Groundwater aquifer maps will also be prepared based upon publicly available information depicting groundwater flow direction, groundwater quality, groundwater well locations, and associated exclusion zones where information is readily available. These maps will be based on information gathered from the NYSDEC Division of Water Resources, Bureau of Water Management, USGS Office of Groundwater, the USDA NRCS Web Soil Survey, and information gathered through research and outreach from the Applicant.

To identify water wells within the Project Area, a Freedom of Information Law (FOIL) request letter will be sent to the Seneca County Health Department and the NYSDEC to request access to all publicly available water well information. The Application will include information received from the NYSDEC and Seneca County on water wells, including location, depth, yield, and use, if such data are available. Figure 11 provides preliminary identification of currently mapped water wells. Additionally, the Applicant will conduct a private well survey to further identify water wells within the vicinity of the Project. The survey will be distributed to all landowners within a 500-foot radius of the proposed Facility Area and within a 2,000-foot radius of proposed pile driving (and blasting, if applicable) locations.

Excavations for foundations and access roads are expected to be relatively shallow and are not anticipated to intercept groundwater within the surrounding aquifers. The solar arrays will be set back from residences, and therefore the majority of earthwork activities are generally not planned to occur in close proximity to residential drinking water wells. Construction of the Project will adhere to a spill prevention control and countermeasure (SPCC) plan and a SWPPP to prevent significant adverse impacts such as contamination and/or erosion due to surface runoff.

The Project may result in small, sparsely distributed areas of impervious surface within the Project Area. The Application will provide an analysis to summarize potential impacts to public and private drinking water supplies, groundwater quality, and associated aquifers within one mile of the Project Area. The Application will include analyses to address anticipated temporary impacts arising from any necessary dewatering for construction activities.

Though none are anticipated, an analysis of any potential impacts to drinking water supplies due to construction or operations of the Project will be included in the Application including characterization of the type, nature, and extent of service provided from the identified source.

Additional detail regarding groundwater impacts will be supported in the Application with results from a preliminary geotechnical investigation. Specific avoidance and mitigation measures that will be implemented to protect groundwater resources during construction of the Project will also be provided.

### **Surface Water**

The Application will provide Project Area surface water maps compiled from NYSDEC, Esri, and Seneca County data, as well as data collected for all streams during ongoing site-specific wetland and waterbody delineation surveys.

The Project Area is located within the Seneca drainage basin of New York (USGS Hydrologic Unit Code 04140201) and the Upper Seneca River watershed (Hydrologic Unit Code 0414020109). According to the NYSDEC, the Seneca drainage basin covers an area of approximately 3,459 square miles. The entirety of Seneca County is covered by this basin, which also incorporates portions of Monroe, Wayne, Ontario, Onondaga, Cayuga, Yates, Steuben, Schuyler, Chemung, Tompkins, and Cortland Counties. The Seneca Watershed is the largest watershed in NYS, and ranges in elevation from 358 to 2,286 feet above sea level. Based on water quality measurements, rivers and lakes within the Seneca basin are rated variously as impaired segments, minor impacts, threatened, needing verification, no known impact, or un-assessed. Agriculture, industry, streambank erosion, and urban runoff have caused impacts to some of the larger lakes in the watershed.

The NYSDEC classifies New York's streams as AA, A, B, C, and D. Classes AA or A are assigned to streams with the highest water quality. The best uses of class AA or A streams are water supply for drinking, culinary or food processing purposes, primary and secondary contact recreation, and fishing. Class B waters are suggested to only be used for primary and secondary contact recreation and fishing. The best usage of Class C waters is fishing and non-contact related activities. Class D waters represent the poorest water quality standard, and it is advised that recreational activities do not occur within this water class. Waters with classifications A, B, and C may also have a standard of (T), indicating that it may support a trout population, or (TS), indicating that it may support trout spawning.

All streams and small waterbodies located in the course of a stream with a classification of AA, A, or B, or with a classification of C with a standard of (T) or (TS) are collectively referred to as

"protected streams." Special requirements also apply to sustain (T) and (TS) waters that support sensitive fisheries resources.

Streams or other bodies of water that appear as lines to indicate natural waters on the NYSDEC's reference maps, and which are not specifically classed by the NYSDEC, are assigned the same classes and standards of quality and purity as the specifically designated waters to which they are directly tributary. Additionally, all streams or other bodies of water that are not shown on the NYSDEC's reference maps are assigned to class D, as set forth in Part 701, *supra*, except that any continuous flowing natural stream that is not shown on the reference maps is assigned the same classification and standards as the waters to which they are directly tributary (6 NYCRR-NY 876.2). All NYSDEC waterbodies mapped within the Project Area are listed by the NYSDEC as Class C waterbodies.

A Wetland and Waterbody Report, which will be appended to the Application, will describe the characteristics of all delineated streams. The report will include a summary of each streams' flow regime, watershed association, NWI classification, physical characteristics (e.g. bed, banks, etc.), and assumed jurisdictional status. All of the streams are part of the watersheds identified as hydrologic unit codes (HUC) 041402010904 and 041402010905. The design goal of the Project is to minimize, to the maximum extent practicable, impacts to wetlands.

The Application will describe the characteristics of all Project Area streams, including water quality, flow regime, and general aquatic ecology. Based upon a review of publicly available mapping, and initial on-Site ecological surveys, there are multiple streams within the Project Area; however, they are all listed by the NYSDEC as Class C streams and are therefore not regulated by the State. The Application will incorporate information acquired from publicly available data sets and from any field data that documents NYSDEC-listed invasive species observations made during the on-Site stream delineations. Preliminary siting of Project components will include measures to avoid and/or mitigate temporary or permanent impacts to surface waters. Mitigation measures will include those commonly used and approved within SPDES Stormwater Permits. Accordingly, a preliminary SWPPP will be included in the Application describing these avoidance/mitigation measures.

The Application will describe and quantify any anticipated direct or indirect stream impacts associated with the construction of the Project. Any surface water impacts are anticipated to



occur primarily from access road and collection line crossings. The number and linear feet of stream impacts due to access road crossings will be minimized by routing around streams whenever possible and utilizing existing crossings and narrow crossing locations to the extent practicable. Attempts, when feasible, will be made to upgrade existing crossings that are in disrepair or are undersized.

If the crossing of a surface water resource is deemed necessary for the Project, BMPs based on those previously adopted by the Siting Board will be employed. Proper briefing and signage will be provided to construction crews to dictate areas where equipment access is prohibited. Crossings of streams and wetlands will only occur along permitted access roads or through non-jurisdictional use of temporary matting.

Restrictions on activities within a predetermined buffer zone adjacent to delineated streams, wetlands, and other waters will include:

- No equipment refueling or washing;
- No storage of petroleum or chemical materials;
- No disposal of concrete or wash water;
- No amassing of construction debris or accumulation of slash materials in the area;
- No use of herbicides within the area; and
- No actions that may result in the degradation of stream banks or steep slopes above water resources.

A FOIL request for the location of all downstream surface drinking water intake sites within one mile of the Project Area will be sent to the Seneca County Health Department. These locations will be depicted in a figure set provided as an appendix to the Application. If no intake sites are listed in this search radius, the nearest intakes downstream of the Project will be described. Information on the design, nature, and extent of services of each listed intake site will be provided within Exhibit 23 of the Application where readily available.

An ESCP will be prepared as part of the SWPPP and as required per the SPDES General Permit to limit the possibility of soil erosion and sedimentation within water resources throughout the Project Area. Silt fences, hay bales, siltation catch basins, check dams, and/or other standardized sedimentation control measures will be installed and maintained throughout

the construction and operation phases of the Project until impacted areas become stabilized. To facilitate soil stabilization, exposed soils will be seeded and mulched in a timely manner to reduce the risk of sedimentation events arising from storm events. Control measures will be dictated in the Project SWPPP. Their locations and design will be shown on appropriate construction drawings. As part of the SWPPP, a monitor will be in place throughout the work period and during the restoration period in order to inspect and assess sedimentation risk, and to mitigate any unforeseen issues specific to the nature of the Project Area.

### **Stormwater**

The Applicant will issue a Notice of Intent (NOI) for Stormwater Discharges from Construction Activity, and will seek coverage under the SPDES General Permit prior to commencement of construction operations.

The Application will include a preliminary SWPPP as an appendix, prepared in accordance with the NYS SDESC and the NYS Stormwater Management Design Manual. The preliminary SWPPP will include:

- A Project introduction that will review the purpose, need, and appropriate contents of the complete SWPPP;
- Anticipated stormwater management practices, including erosion and sediment control measures;
- Anticipated construction activities, including a preliminary construction phasing schedule and definition of disturbance areas;
- Site waste management and spill control measures;
- Proposed site inspection and maintenance measures, including construction site inspection, and construction site record keeping; and
- Conditions that will allow for the termination of permit coverage.

As noted above, a preliminary SWPPP will be included in the Application. Preparation of the final SWPPP will require a level of detail that is not expected to be available until after the completion of the Application and final engineering. Later in the development the Project, the detailed engineering will proceed and aid in the preparation of the final SWPPP in accordance with the SPDES General Permit. The SWPPP will be followed for management of stormwater discharge within the Project Area during the construction and restoration phases of the Project.

The ESCP will be designed to satisfy compliance with the SPDES General Permit for the Project. The SWPPP will provide descriptions on temporary and permanent erosion and sedimentation control measures, phases of construction, disturbance limits, waste management, spill prevention, and site inspection and maintenance. Erosion and sedimentation control measures used during construction and operation of the Project shall, at a minimum, include the measures set forth in the SWPPP. The final SWPPP is intended to be submitted as part of any required Compliance Filing or with the Secretary.

Hydrologic models will be used by professional engineers in order to calculate stormwater discharges for the construction and operation phases of the Project. A pre-construction analysis of stormwater discharge from Project Area will be used in order to compare and contrast proposed conditions during the post-construction phase of the Project.

#### **Chemical and Petroleum Bulk Storage**

A preliminary SPCC plan will be created to be implemented during the construction and operation of the Project to prevent the release of hazardous substances into the environment, especially near water resources. As mentioned previously, all refueling operations will be required to occur outside of the predetermined buffer area around wetlands and streams within the Project Area. All contractors will be required to have spill kits on hand to control any spills. This requirement and a list of the materials included in the kits will be explained in more detail within the SPCC plan and SWPPP provided to contractors. Spills will be reported in accordance with state and federal guidelines and the contractor will be required to adhere to both the SWPPP and SPCC Plan.

The Applicant does not anticipate on-Site storage or disposal of large volumes of substances regulated under the chemical and petroleum bulk storage programs of NYS. The Application will identify any petroleum or other hazardous chemicals that are necessary for construction and are proposed to be stored on-Site, and will explain how applicable laws and guidelines for storage and disposal of such substances will be followed.

#### **Aquatic and Invasive Species**

Non-native invasive species have the potential to degrade aquatic environments. To minimize the impact on the environment, NYSDEC regulations address the possession, transport, importation, sale, purchase, and introduction of select invasive species (6 NYCRR Part 575).

These include select aquatic species (i.e., fish, aquatic invertebrates, and aquatic vertebrates) as listed in Prohibited and Regulated Invasive Species, dated September 10, 2014. Aquatic and invasive species will be surveyed by a field ecologist and mapped within areas planned for disturbance by the Project facilities to support the development of an invasive species prevention and management plan. Observations of invasive species will be documented, and a comprehensive ISMCP will be generated and used to mitigate the transport and spread of any observed aquatic invasive species. The ISMCP will be included as an appendix in the Application.

The ISMCP will evaluate reasonable avoidance/mitigation measures in order to reduce impacts to surface waters and any biological aquatic resources as well. The ISMCP will involve predefined processes such as construction materials inspection, target species treatment and removal, construction equipment sanitation, and proper site restoration techniques.

### **Cooling Water**

This Project will not require cooling water during any phase of construction or operation of the Project. As such, the requirements dictated in 16 NYCRR § 1001.23(f) are not applicable to this Project.

### **Proposed Studies**

The Applicant proposes to collect, evaluate, and provide the following information to support and prepare Exhibit 23 of the Application in accordance with 16 NYCRR § 1001.23:

- (a) Groundwater:
  - (i) Hydrologic information reporting depths to high groundwater and bedrock, including a site map showing depth to high groundwater in increments appropriate for the Project Area.
  - (ii) A map based on publicly available information showing all areas within the Study Area delineating all groundwater aquifers and groundwater recharge areas, and identifying groundwater flow direction, groundwater quality, and the location, depth, yield and use of all public and private groundwater wells or other points of extraction of groundwater within a 500-foot radius of the proposed Project Area (and within a 2,000-foot radius of blasting locations and

pile driving locations, as applicable) and including delineation of wellhead and aquifer protection zones. Well locations will be distinguished as “approximate” or “confirmed”.

- a. To identify water wells within the Project Area, a FOIL request letter, if necessary, will be sent to the Seneca County Public Health Department and NYSDEC to request access to all publicly available water well information. The Applicant will also submit, if necessary, a FOIL request letter to the New York State Department of Health (NYSDOH). Copies of the FOIL request letters, and any information gained thereof, will be included in the Application. Well construction details, usage patterns, and water quality data will be obtained to the extent that it is publicly available through these agencies. Because the utilization of blasting techniques is not anticipated for the Project, impacts to wells in the area are also not anticipated. As such if blasting is not proposed, the request to NYSDOH will be made for data of existing groundwater wells within 500 feet of the Project Area. There is no blasting anticipated for the Project, and excavations for foundations and access roads are expected to be relatively shallow and are not anticipated to intercept groundwater within the surrounding aquifers. As such, the Applicant does not anticipate impacts to groundwater wells.
- b. The Applicant will attempt to implement the following verification and maps:
  - (i) Locations of public and private water wells will be verified through field observations where property access rights are obtained by the Applicant.
  - (ii) Maps showing water well locations will distinguish whether each well location is approximate or confirmed.
- (iii) Based upon publicly available information, an analysis and evaluation of potential impacts (during normal and drought conditions) from the construction and/or operation of the Project on drinking water supplies, groundwater quality and quantity in the Project Area, including potential impacts on public and

private water supplies, including private wells within a one-mile radius of the Project Area, and wellhead and aquifer protection zones.

- (iv) The results of a private well survey distributed to all landowners within a 500-foot radius of the proposed Project Area and within a 2,000-foot radius of proposed blasting and pile driving locations (if applicable). The water well survey materials will include a summary of the project, contact information and a description of where the well owner can get more information about the project (i.e. project website, document repositories, etc.), as well as an invitation to join the stakeholder list.

(b) Surface Water:

- (i) A map and identification of all surface waters, including perennial, intermittent, and ephemeral streams within the Study Area. Surface water maps will be based on data from NYSDEC, Esri, USGS, NWI, and stream data collected during on site surveys of water resources. On site survey data for surface waters will be provided to NYSDEC and DPS as shapefiles and in tabular format that can be cross-referenced to the maps.
- (ii) A description of the state-listed Water Classification and Standards, physical water quality parameters, flow, biological aquatic resource characteristics (including species, habitat, and presence of aquatic invasive species) and other characteristics of such surface waters, including intermittent streams, within the Study Area.
- (iii) An identification of any downstream surface water drinking-water supply intakes within one mile, or if none within one mile, an identification of the nearest one (giving location of the intakes by longitude and latitude) that could potentially be affected by the Project or interconnections, including characterization of the type, nature, and extent of service provided from the identified source.
- (iv) An analysis of the impact of the construction and operation of the Project and interconnections on such surface waters, including impacts, based upon publicly available information, to drinking water supplies, and an identification and evaluation of reasonable avoidance measures and, where impacts are unavoidable, mitigation measures regarding impacts on such surface waters, including the precautions that will be taken to avoid or minimize dredging.

- (v) An identification and evaluation of reasonable avoidance measures, and where impacts are unavoidable, mitigation measures, including the use of water storage, stormwater reuse, and offsetting water conservation, regarding groundwater impacts.
- (vi) A list and evaluation of reasonable avoidance, minimization, mitigation measures, and the potential alternatives to avoid impacts to wetlands and streams, including stream crossings, to the maximum extent practicable. Environmental impacts discussed and addressed will include, as applicable: thermal changes to waterbodies due to vegetative clearing, changes to in-stream structure and morphology, potential impacts to or taking of state-listed T&E, SSC and SGCN, and the effects of turbidity on nearby aquatic habitat.
- (vii) All new stream crossings or upgrades of old crossings that may be necessary will be designed for a 100-year storm event. Culvert placement specifications will be described and enumerated, detail the expected flow calculations, and demonstrate culvert capacity with BMP considerations for culvert placement. The feasibility of using trenchless stream crossings will be assessed for all streams proposed to be crossed. BMPs will be used year-round for all stream crossings. Where impacts are deemed unavoidable, proposed measures to mitigate impacts to the maximum extent practicable will be discussed. If necessary, this discussion will be updated in any required Compliance Filing, or filed with the Secretary, upon verification of wetland boundaries and any issued jurisdictional determinations, and final impact calculations will be based on any issued verified delineation boundaries for jurisdictional wetlands.

(c) Stormwater:

- (i) A preliminary SWPPP for the collection and management of stormwater discharges from the Project prepared in accordance with the applicable SPDES General Permit for Stormwater Discharges from Construction Activity (SPDES General Permit) and the most current version of the NYS SDESC.
- The hydrogeology of the Project Area will be taken into consideration when preparing the SWPPP. The SWPPP will include a description

of proposed measures of prevention of ecological impacts to these areas to the maximum extent practicable, and pre- and post-development hydrologic modeling and water quality calculations.

- An evaluation of potential impacts of stormwater runoff on both agricultural uses and drainage patterns within and adjacent to the Project Area. The Application will also address the preliminary design of stormwater controls, and draining features used during site restoration, in light of avoiding post-construction negative impacts on the mentioned resources.
- Proposed BMPs will be documented in the SWPPP to be included in the Application.
- The Maryland “Stormwater Design Guidance – Solar Panel Installations” will be considered as part of SWPPP development and a discussion will be included to identify how the criteria outlined in the design guidance are met.

- (ii) To the extent not covered in paragraph (i) above, a preliminary plan, prepared in accordance with the most current version of the NYS SDESC, that identifies the post-construction erosion and sediment practices that will be used to manage stormwater runoff from the developed Project Area. This can include runoff reduction or green infrastructure practices, water quality treatment practices, and practices that control the volume and rate of runoff. Proposed vegetation species that may be used will be listed, and the use of native species and pollinators will be considered.
- (iii) The final SWPPP will include an ESCP as required per the SPDES General Permit to limit the possibility of offsite impacts, and to minimize, to the maximum extent practicable, soil erosion and sedimentation within water resources throughout the Project Area and will be provided as part of any required Compliance Filing or filed with the Secretary.
- (iv) To the extent not covered in paragraph (i) above, a preliminary plan, prepared in accordance with the most current version of the New York State SDESC that identifies the post-construction erosion and sediment practices that will be used to manage stormwater runoff from the developed Project Area. This can include



runoff reduction/green infrastructure practices, water quality treatment practices, and practices that control the volume and rate of runoff.

(d) Chemical and Petroleum Bulk Storage:

- (i) The Applicant does not currently anticipate the on site storage or disposal of large volumes of substances regulated under the chemical and petroleum bulk storage programs of NYS. If construction operations require petroleum or other hazardous chemicals to be stored on site, a description of the spill prevention and control measures to be in place for chemical storage, including an evaluation of alternatives and mitigation measures, will be included in the Application.
- (ii) The Applicant does not anticipate the on site storage of ammonia, fuel oil, wastewater, other chemicals, petroleum or other hazardous substances, or solid waste. However, if construction requires the storage of any of these hazardous chemicals regulated under the State of New York's chemical and petroleum bulk storage program, a demonstration of compliance with such regulation shall be provided in the Application.
- (iii) The Applicant does not currently anticipate the on site storage or disposal of large volumes of substances regulated under the chemical and petroleum bulk storage programs of any local laws. If construction operations require petroleum or other hazardous chemicals to be stored on site, those substances will be identified within the Article 10 Application and all applicable laws and guidelines will be followed.

(e) Aquatic Species and Invasive Species:

- (i) An analysis of the impact of the construction and operation of the Project on biological aquatic resources, including species listed as endangered, threatened, or SSC in 6 NYCRR Part 182, and including the potential for introducing and/or spreading invasive species.
- (ii) An identification and evaluation of reasonable avoidance measures and, where impacts are unavoidable, mitigation measures regarding impacts on such biological aquatic resources, including species and invasive species

impacts (if any) and in compliance with applicable water quality standards (6 NYCRR Part 703).

- (f) This Project will not require cooling water during any phase of construction or operation and, therefore, cooling water withdrawals will not be addressed in the Application.

### 3.24 Visual Impacts (Exhibit 24)

A visual impact assessment (VIA) will be prepared for the Project and included in the Article 10 Application. The VIA will determine the extent and significance of the Project's visibility and will be performed according to the requirements as outlined in 16 NYCRR § 1001.24.

#### **Character and Quality of the Existing Landscape**

Prior to any investigation for visual analysis, a Visual Study Area (VSA) must be defined. Because of the typical height of solar panels, an initial focus of 2 to 5 miles is proposed for a VSA. While 2 miles is adequate due to the low height of the solar panels, areas between 2 and 5 miles will also be explored as a conservative measure. During the pre-application phase, and once a solar array layout has been determined, the Applicant will prepare a preliminary viewshed analysis for the purpose of defining the appropriate VSA and APE for Historic Architectural Studies. This preliminary viewshed analysis will be distributed to involved parties (as discussed in Proposed Study 24(b)(5) below).

The definition of the VSA is currently proposed to be five miles around the property boundaries of the Project Area and not around the general perimeter outline of the solar array themselves. Distance Zones will be assigned within the VSA as required by Article 10. Currently, Distance Zones of 0.5 mile, 2 miles, and 5 miles will be applied. The towns and cities within the VSA include:

- Towns and City within the one-half mile Distance Zone: Town of Waterloo, Town of Fayette, Town of Geneva, City of Geneva, and Town of Phelps.
- Towns within the two-mile Distance Zone: Waterloo, Fayette, Geneva, and Phelps.
- Towns between the two- and five-mile Distance Zones: Junius, Phelps, Waterloo, Tyre, Seneca Falls, Fayette, Geneva, and Seneca.

Existing conditions and character of the landscape will be evaluated through the acquisition of GIS data, review of town and county reports, topographic data, and site visits along with photographic documentation. As part of evaluating existing conditions, landscape similarity zones (LSZ) will also be defined. LSZs are areas of similar landscape/aesthetic character based on patterns of landform, vegetation, water resources, land use, and user activity, and are helpful in providing a framework for assessment and understanding the visual environment.

Based on reconnaissance level investigations of the vicinity, the landscape in the Town of Waterloo is primarily a rural mix of farmland consisting of cultivated crops and hay-pastureland with small intermittent and isolated forest groups, many of which serve as vegetated riparian zones for local streams. The City of Geneva, located approximately two miles to the west of the Project Area, has medium intensity urban development.

A visual resources inventory as generally stated in 16 NYCRR § 1001.24(b)(4)(ii) will be performed to determine the existing publicly accessible sensitive receptors that may be susceptible to visual impacts. A final assessment of resources will be provided in the Application.

### **Visibility of the Project**

To determine visibility of the Project, a GIS-based viewshed analysis will be performed and prepared by using Esri ArcGIS Spatial Analyst software and will include vegetated tree groups and/or buildings to realistically depict the surrounding landscape. This analysis is a GIS analytical technique that determines if and where an object can geographically be seen within a larger regional area and is primarily based on elevation data. The results of the viewshed analysis are combined with the visual resources inventory locations to predictively identify those resource areas that may potentially see all or some portion of the Project.

Photographic simulations will also be prepared to assess the quality of view from select viewpoint locations. Photographs to be used in simulations will be acquired during site visits. Several candidate locations for simulations will be chosen resulting from a number of preliminary investigations, with the assistance of the visual resources inventory in combination with the predicted visibility of the viewshed analysis and on-the-ground site visits. The Applicant will consult with DPS Staff and other stakeholders for their input on the selection of additional viewpoints for simulations per 16 NYCRR § 1001.24 (b)(4).

### **Visibility of Above-ground Structures and Interconnections**

A proposed collection substation and, adjacent thereto, an on-Site POI switchyard tap line is proposed to be built by the Applicant. Potential visibility of the aboveground facilities may be assessed either by viewshed analysis, line of sight analysis, or photosimulations.

### **Appearance of the Project upon Completion**

Photosimulations will be prepared from selected vantage points in order to represent the appearance of the Project upon completion. A 3D model of the Project will be created according to engineering specifications to be used in visualization software. High resolution photography will be obtained as part of site visits to use in the simulations.

### **Photographic Overlays**

To create the simulations, Autodesk 3DS MAX visualization software will be used to correctly dimension a model of the Project into the digital photographic image from each viewpoint location. For a given vantage point, the visualization software is capable of providing and adjusting a camera view that matches that of the actual photograph. From the field effort, the documented camera coordinate (x,y,z) positions will be entered into the model using a sub-meter GPS unit. A full frame digital camera with a fixed 50 mm focal length lens or a digital single-lens reflex (SLR) camera with crop factor adjusted for 35 mm focal length equivalents will be used for obtaining photographs. A focal length of 50 mm will generally be used as it most closely resembles human vision. There may be some circumstances where wider angle focal length might be used for panoramic views. Reference locations, which are existing visible objects in the photograph such as light posts, building corners, trees, gate posts or utility poles will be obtained as part of the field task to assist with refined placement of the proposed Project within the photograph. High point references will be measured with a digital rangefinder.

### **Nature and Degree of Visual Change**

Existing visual and landscape characteristics of the Project will be described in the Application. Predicted visibility in the landscape from the Project will be provided by viewshed analyses and areas of visibility in relation to visual resources will be discussed. Descriptions of how land characteristics, including tree cover or topography might preclude views, will be described as well.

Simulations will be made from vantage points from public areas with the most open views to the Project as possible.

To assess visual change of the Project as per 16 NYCRR § 1001.24(b)(7), a simulation set of existing conditions against Project conditions will be compared and rated. Documentation of the steps followed in the rating and assessment methodology will be provided including results and summary discussion of rating impacts and a description of the qualifications of the

individuals serving on the rating panel. There is no standard rating form that is required by DPS. TRC has developed a visual impact rating form for use in comparing Project photosimulations for efficient and streamlined use with projects that undergo state environmental permitting processes. The form is a simplified version of various Federal agency visual impact rating systems, including concepts and applications sourced from:

- U.S. Bureau of Land Management (BLM), Handbook H-8431: Visual Contrast Rating, January 1986 (USDOI, 1986);
- Visual Resources Assessment Procedure for USACE, March 1988 (Smardon, et al., 1988);
- National Park Service (NPS) Visual Resources Inventory View Importance Rating Guide, 2016 (NPS, 2016);
- USDA Forest Service (USFS), United States Department of Agriculture Forest Service, Landscape Aesthetics: A Handbook for Scenery Management, USDA Forest Service Agriculture Handbook No. 701, 1995 (USDA, 1995).

### **Related Operational Effects of Project**

The Application will contain an analysis and description of potential glare related effects during operation of the Project. Photovoltaic panels are constructed with non-reflective coatings and/or glass. These panels are designed specifically to absorb as much sunlight as possible in order to maximize electrical generation, rather than reflect sunlight. Further, the metal supports that form the racking system are typically constructed using galvanized steel or aluminum and therefore will not reflect sunlight.

### **Measures to Mitigate for Visual Impacts**

The most effective means of mitigating visual impacts is through optimal siting, adequate setbacks, and design of Project components. Discussion of general mitigation strategies such as design, appearance, siting, avoidance, and layout will be discussed in the Application as well as any landscaping proposed for screening.

### **Description of Visual Resources to be Affected**

Local, state, and federal visual resources will be investigated per 16 NYCRR § 1001.24(b)(4)(ii). These are areas such as landmark landscapes; wild, scenic or recreational rivers administered respectively by either the NYSDEC or Department of Interior pursuant to 16 USC § 1271; forest preserve lands, conservation easement lands, scenic byways

designated by the federal or state governments; Scenic districts and scenic roads, designated by the Commissioner of Environmental Conservation pursuant to ECL Article 49 scenic districts; Scenic Areas of Statewide Significance; state parks or historic sites; sites listed on National or State Registers of Historic Places; areas covered by scenic easements, public parks or recreation areas; locally designated historic or scenic districts and scenic overlooks; and high-use public areas.

Viewer groups and viewer exposure including residential areas and high-volume travel corridors will also be described.

### **Proposed Studies**

The Applicant proposes to collect, evaluate, and provide the following information to support and prepare Exhibit 24 of the Application in accordance with 16 NYCRR § 1001.24:

- (a) The Application will include a VIA to determine the extent and assess the significance of Project visibility within a 2 to 5-mile VSA. The components of the VIA will include identification of visually sensitive resources, viewshed mapping, confirmatory visual assessment fieldwork, visual simulations (photographic overlays), cumulative visual impact analysis, and proposed visual impact mitigation. The VIA will address the following:
  - (i) The character and visual quality of the existing landscape
  - (ii) Visibility of the Project, including visibility of Project operational characteristics
  - (iii) Visibility of above-ground Project interconnections, if proposed, and roadways to be constructed within the Study Area.
  - (iv) Appearance of the Project upon completion, including structure size, architectural design, facade colors and texture, and lighting associated with the collection substation
  - (v) Lighting (including lumens, location, and direction of lights for Project Area and/or task use, safety including worker safety and tall structure marking requirements) and similar features including a discussion on the minimization of upward-directed lighting
  - (vi) Representative views (photographic overlays) of the Project, including front, side, and rear views, indicating approximate elevations; from select resource

locations representing as practical as possible, views from the north, south, east, and west compass locations

- (vii) Nature and degree of visual change resulting from construction of the Project and above-ground interconnections
- (viii) Nature and degree of visual change resulting from operation of the Project
- (ix) Analysis and description of related operational effects of the Project such as glare. A study and discussion of any potential glare impacts will be provided in the Application. No plumes, shading, or shadow flicker are anticipated.
- (x) Proposed reasonable mitigation measures based on an assessment of mitigation strategies including screening (landscaping, listing species used, and the consideration of usage of native species), architectural design, visual offsets, relocation or rearranging Project components, reduction of Project component profiles, alternative technologies, Project color and design, lighting options for work areas and safety requirements, and lighting options for aviation obstruction lighting if required by the Federal Aviation Administration (FAA).
- (xi) A description of all visual resources that would be affected by the Project that are within a radius of five miles from the Project Area boundaries.

(b) The viewshed analysis component of the VIA will be conducted as follows:

- (i) A digital GIS-based viewshed analysis will be prepared using Esri ArcGIS Spatial Analyst software for this Project and will include vegetated tree groups to realistically depict the surrounding landscape. The results will be prepared and presented on a 1:24,000 scale current USGS base map. The viewshed maps shall provide an indication of areas of potential visibility based on topography and vegetation and the highest elevation of Project structures. The potential screening effects of vegetation shall also be shown. The map(s) shall be divided into foreground, midground and background areas based on visibility distinction and distance zone criteria. Visually sensitive sites, cultural and historical resources, representative viewpoints, photograph locations, public vantage points, and LSZs within the visual study area shall be included on the map(s) or an overlay. An overlay indicating LSZs shall be included. A line of sight profile shall also be created for resources of statewide concern located within the VSA, if applicable.



- (ii) The VIA will include a detailed description of the methodology used to develop the viewshed maps, including software, baseline information, and sources of data.
- (iii) The viewshed mapping will be used to determine potential visibility of viewer groups in the Project Study Area.
- (iv) Viewer groups will include recreational areas (i.e., golf course, state and local parks, recreational waterways), residences, businesses, listed State or NRHP sites, and travelers (interstate and other highway users).
- (v) The Applicant shall confer with the appropriate municipal representatives, DPS, NYSDEC, and OPRHP. Viewpoint selection will be based upon the following criteria:
  - Representative or typical views from unobstructed or direct line-of-sight views from locations predicted to have direct line-of-sight visibility of facilities components, based on results of preliminary viewshed mapping
  - Significance of viewpoints designated as scenic resources, areas or features which features typically include, but are not limited to: landmark landscapes; wild, scenic or recreational rivers administered respectively by the NYSDEC pursuant to ECL Article 15 or Department of Interior pursuant to 16 USC § 1271; forest preserve lands, scenic vistas, conservation easement lands, scenic byways designated by the federal or state governments; Scenic districts and scenic roads, designated by the Commissioner of Environmental Conservation pursuant to ECL Article 49 scenic districts; state parks or historic sites; sites listed on or eligible for listing on National or State Registers of Historic Places; areas covered by scenic easements, public parks or recreation areas; nearby NYS Forest Lands, locally designated historic or scenic districts and scenic overlooks; National Rivers Inventory listed or candidate waterways; and high-use public areas.
  - Level of viewer exposure, i.e., frequency of viewers or relative numbers, including residential areas, or high-volume roadways
  - Proposed land uses identified in publicly available, government-published data bases
  - Verifiable input provided from local public sources

The Applicant will use CRIS and provide a listing of Eligible Historic Sites with corresponding Unique Site Numbers (“USNs”), addresses, along with mapped GIS locations. Most data for eligible sites are already on the CRIS system in the form of site plans, pictures, and written forms. The USNs can be cross-referenced to the data that SHPO and OPRHP already have in their system.

- (vi) Photographic simulations of the Project and interconnections shall be prepared from the representative viewpoints to demonstrate the post-construction appearance of the Project. Where vegetation screening is relied on for project mitigation, leaf-off (i.e., wintertime) and leaf-on (i.e., summertime) simulation shall be provided. Representative viewpoints shall be established in consultation with NYSDEC, DPS, OPRHP, and a three-dimensional model of the Project built according to site engineering specifications will be prepared from select viewpoint locations. Photographs to be used in simulations will be acquired during site visits and will represent leaf-off conditions. An appropriate number of candidate locations for simulations will be chosen resulting from a number of preliminary investigations, surveys, and stakeholder input, with the ultimate focus on the visual resources inventory in combination with the predicted visibility of the viewshed analysis and on-the-ground site visits.
  - a. The Applicant will provide either leaf-off photographs or leaf-off photographic simulations from representative viewpoints as determined through additional consultations, having direct line-of-sight visibility of the proposed Project, viewing circumstance with respect to vegetative obstructions (e.g. leaf-off conditions are not as critical with wide open agricultural land views), and within the scope of Article 10 regulations.
- (vii) Additional revised simulations illustrating mitigation of the Project, such as use of screening, will be considered. Discussion of other general mitigation strategies such as design and layout will be discussed in the Application. If mitigation is proposed, simulations will be prepared illustrating the incorporated mitigation, as it appears from select observation points.
- (viii) Each set of existing and simulated view of the Project shall be compared and rated and the results of the VIA shall be summarized. Documentation of the steps followed in the rating and assessment methodology shall be provided including results of rating impact panels and a description of the qualifications

of the individuals serving on the panels. Where visual impacts from the proposed Project are identified, potential mitigation measures shall be outlined, and the extent to which they effectively minimize such impact shall be addressed. The Applicant will utilize a visual impact rating form for comparing project photo simulations. This form is a simplified version of various federal agency visual impact rating systems.

- (ix) As applicable to the proposed Project technology, the analysis shall include analyses of overall appearance and operational characteristics of the Project and related facilities, including night-lighting, glare, or related visible effects of Project operations, including an assessment of the predicted extent, frequency and duration of any such visible effects created by the Project.
- (x) Documentation of the identification and outreach to visual stakeholders pursuant to 16 NYCRR § 1001.24(b)(4).



### **3.25 Effect on Transportation (Exhibit 25)**

The Application will present a description of existing, pre-construction roadways and their associated usage within the Project Area and the larger Study Area. The Study Area is currently served by a network of state, county, and local roadways. Existing roads within the Study Area range from a four-lane highway to two-lane roads with paved or dirt shoulders. Data will be obtained from the NYSDOT Traffic Data Online Viewer to review existing traffic volumes along the proposed routes for delivery of Project components, construction, and operation of the Project.

The Application will include a site plan depicting the location and dimensions of all Project related access roads used for construction, maintenance, and operation within the Project Area. The detailed roadway descriptions included in Exhibit 25 of the Application will include existing vehicle traffic, general use levels, accident occurrence levels, school bus service areas, and emergency response vehicle departure routes to and from the Project based upon publicly available information. The load bearing and structural rating of existing roads within proximity of the Project Area will be specified in the description. An analysis of the suitability of existing road surfaces and intersections for transport of Project related materials will be provided. Consultation with local, state, and federal transportation agencies, highway departments, and emergency responders will be conducted.

It is anticipated that existing roadways within and surrounding the Project Area will have adequate capacity for accommodating deliveries for Project construction. Most construction deliveries are anticipated to occur utilizing flatbed trucks. No over-size deliveries are anticipated to be required. Information on the approximate size and number of construction vehicles necessary for Project construction will be included in the Application.

Additional vehicle use will include gravel trucks, pick-up trucks for equipment and tools, and trucks and cars for transporting personnel. The Application will provide a list of typical construction vehicles anticipated to be in use, along with the associated vehicle weights, and estimated numbers of daily round trips for each.

Once construction of the Project is complete, transportation levels during operations will be minimal. Maintenance activities will generally involve individuals or small crews and utility crew

pick-up trucks, which are typical vehicles currently in use in this rural area. Normal, scheduled maintenance activities may involve monthly visits to the Project. Such service visits typically involve one to two pick-up trucks. If an unscheduled repair of a significant component should be required, larger vehicles similar to those used during typical commercial construction may be required for a short duration and limited location. The Applicant is responsible for the maintenance of all private access roads leading to the solar array location. The Application will provide O&M procedures that will provide more detail on scheduled and unscheduled maintenance.

An evaluation of the traffic and transportation impacts of the Project from construction related activities will be provided in Exhibit 25 of the Application. Mitigation and safety measures will be proposed if any adverse impacts are identified. Exhibit 25 will include a road use survey, with traffic patterns, accident rates, and school bus routes. To help assess impacts to emergency services, Exhibit 25 will include a map showing locations of emergency services providers relative to the Study Area.

### **Proposed Studies**

The Applicant proposes to collect, evaluate, and provide the following information to support and prepare Exhibit 25 of the Application in accordance with 16 NYCRR § 1001.25:

- (a) A conceptual site plan, drawn at an appropriate scale, depicting all Project Site driveway and roadway intersections, showing:
  - (i) Horizontal and vertical geometry, the number of approach lanes, the lane widths, shoulder widths, traffic control devices by approaches, and sight distances; and
  - (ii) There are no wind turbine sites proposed as part of the Project, therefore this section of the Exhibit 25 regulation is not applicable.
- (b) A description of pre-construction characteristics of roads in the vicinity of the Project, including:
  - (i) A review of existing data on vehicle traffic, use levels and accidents;
  - (ii) A review of transit facilities and routes, including areas of school bus service;

- (iii) An identification of potential approach and departure routes to and from the Project Area for police, fire, ambulance, and other emergency vehicles;
  - (iv) The load bearing and structural rating of existing roads will be specified in the detailed roadway descriptions; and
  - (v) The Project Area is not within a congested urbanized area, therefore 24-hour traffic volume counts and peak turning movement counts for typical weekday morning, weekday afternoon, and Saturday peaks, at representative critical intersections are not applicable and will not be included in the Application.
- (c) The Study will include an estimate of the trip generation characteristics of the Project during both construction and operation. The estimate will include:
  - (i) For each major phase of construction, and for the operation phase, an estimate of the number and frequency of vehicle trips, including time of day and day of week arrival and departure, distribution, by size, weight, and type of vehicle;
  - (ii) An identification of approach and departure routes to and from the Project Area out to a 5-mile distance for vehicles carrying water, fuel oil, bulk fuels (including wood, biomass, coal, and municipal solid waste, if applicable), chemicals or hazardous materials for construction or operation of the Project will not be presented in the Application because deliveries of these materials is not proposed;
  - (iii) For major cut or fill activity (spoil removal or deposition at the Project Area and affected interconnection areas), a separate estimate of the number and frequency of vehicle trips, including time of day and day of week arrival and departure, and distribution by size, weight, and type of vehicle; and
  - (iv) An identification of approach and departure routes to and from the Project Area for construction workers and employees of the Project.
- (d) The Study will include an analysis and evaluation of the traffic and transportation impacts of the Project, including:
  - (i) Because the Project will have no significant impact on traffic following the construction phase, no analysis of future traffic conditions with and without the Project will be prepared;

- (ii) An evaluation of the adequacy of the road system to accommodate the projected traffic during peak construction, the analysis to also include an identification of the extent and duration of traffic interferences during construction of the Project and any interconnections;
  - (iii) No oversized load deliveries are anticipated. Should any be required, the Application will include an assessment of over-size load deliveries and the adequacy of roadway systems to accommodate oversize and over-weight vehicles; improvements necessary to accommodate oversize or overweight deliveries; impacts associated with such improvements; and mitigation measures appropriate to minimize such impacts;
  - (iv) An identification and evaluation of practicable mitigation measures regarding traffic and transportation impacts if needed, including timing restrictions, the use of alternative technologies, the construction of physical roadway improvements, and the installation of new traffic control devices as well as the repair of local roads due to the damage by heavy equipment or construction activities during construction or operation of the Project;
    - a. The Applicant will consider any overweight/oversize permitting and road feasibility issues for delivery of transformers and other substation and POI related equipment, as applicable.
  - (v) A description of all road use and restoration agreements, if any, between the Applicant and landowners, municipalities, or other entities, regarding documentation and repair of local roads damaged by heavy equipment or construction activities during construction or operation of the Project.
  - (vi) Results of a consultation with the owner of the railroad requesting specific information regarding vehicle crossings railroads during construction or operations.
- (e) An analysis and evaluation of the impacts of the Project on mass transit systems will not be presented in the Application as there are none within the Study Area. An analysis and evaluation of any impacts on airports and airstrips, or on military training and frequent military operations in the National Airspace System and Special Use Airspace designated by the FAA will be included, if any.



- (f) No construction or alteration is proposed that requires a Notice of Proposed Construction to be submitted to the administrator of the FAA in accordance with 14 CFR, Part 77 pursuant to 49 USC, § 44718.
- (g) Though no off site improvements are anticipated to be necessary, should the Project require off site improvements, these will be assessed in the Application.



### **3.26 Effect on Communication (Exhibit 26)**

The Project is not anticipated to interfere with any existing communication systems. The Project will lack tall structures and exposed moving parts, and it is anticipated that it will generate only very weak electromagnetic fields (EMF) at the property boundaries. The Application will document publicly known communication sources above and below ground within the Project Study Area, including the following: underground cables and fiber optic lines, AM radio, FM radio, television stations, telephone systems, microwave transmission (all affected sources, not limited to a two-mile radius from all the Project Area boundaries), emergency services communication systems, municipal/school district services, public utility services, Doppler/weather radar (all affected sources, not limited to a two-mile radius from all Project Area boundaries), air traffic control (all affected sources, not limited to a two-mile radius), Department of Defense (DOD)/Armed Forces (all affected sources, not limited to a two-mile radius), GPSs, long range navigation (LORAN) (all affected sources, not limited to a two-mile radius), and amateur radio licenses registered to users.

The Applicant will attempt to identify any underground cables or fiber optic lines within two miles of the Project Area if they are found to exist. The Applicant will consult with Dig Safe New York (DSNY) in an effort to obtain maps of any buried cables within two miles of the Project Area. Prior to construction, the Applicant will submit a “design ticket” to DSNY, which will initiate a process in which utilities and DSNY provide relevant mapping to the Applicant. The Project will avoid any impacts to underground cables or fiber optic lines.

Trelina Solar Energy Center will consult with the National Telecommunications and Information Administration (NTIA). Any response and/or concerns from NTIA will be included in Exhibit 26 of the Application.

The Complaint Resolution Plan developed for this Project and referenced throughout this PSS, will be available to resolve issues and complaints should they arise within the local community, largely on an individual basis. The Plan will outline the steps for investigation and resolution of such complaints.

### **Proposed Studies**

The Applicant proposes to collect, evaluate, and provide the following information to support and prepare Exhibit 26 of the Application in accordance with 16 NYCRR § 1001.26:

- (a) The Applicant will consult with the Seneca County Emergency Management Office, Seneca County Sheriff Department, and NYS Division of Homeland Security & Emergency Services to assess any effects on communication services, with particular respect to emergency services, or potential impacts on the communication network for the NYS Early Warning Weather Detection System. An identification of all existing broadcast communication sources within a two-mile radius of the Project and the electric interconnection between the Project and the POI, unless otherwise noted, including:
  - (i) AM radio;
  - (ii) FM radio;
  - (iii) Television;
  - (iv) Telephone;
  - (v) Microwave transmission (all affected sources, not limited to a two-mile radius);
  - (vi) Emergency services;
  - (vii) Municipal/school district services;
  - (viii) Public utility services;
  - (ix) Doppler/weather radar (all affected sources, not limited to a two-mile radius);
  - (x) Air traffic control (all affected sources, not limited to a two-mile radius);
  - (xi) Armed forces (all affected sources, not limited to a two-mile radius);
  - (xii) GPS;
  - (xiii) LORAN (all affected sources, not limited to a two-mile radius); and
  - (xiv) Amateur radio licenses registered to users.
  
- (b) Based upon publicly available information, the Applicant will identify underground cables or fiber optic major transmission telecommunication lines within two miles of the Project and the electric interconnection between the Project and POI. The Project will avoid any impacts to underground cables or fiber optic lines. The Applicant will contact Seneca County to confirm identification of any fiber potentially connecting radio towers.

- (c) A statement describing the anticipated effects of the proposed Project and the electric interconnection between the Project and the POI on the communications systems required to be identified pursuant to subdivision (a) and (b) of this Exhibit, including the potential for:
  - (i) Structures to interfere with broadcast patterns by re-radiating the broadcasts in other directions;
  - (ii) Structures to block necessary lines-of-sight;
  - (iii) Physical disturbance by construction activities. The Applicant will consult with DSNY prior to the commencement of any construction activities;
  - (iv) Adverse impacts to co-located lines due to unintended bonding; and
  - (v) Any other potential for interference.
- (d) An evaluation of the design configuration of the proposed Project and electric interconnection between the Project and the POI demonstrating that there shall be no adverse effects on the communications systems required to be identified pursuant to subdivision (a) and (b) of this exhibit.
- (e) A description of post-construction activities that shall be undertaken to identify and mitigate any adverse effects on the communications systems required to be identified pursuant to subdivision (a) and (b) of this section that occur despite the design configuration of the proposed Project.
- (f) There are no wind power facilities proposed as part of the Project, therefore this section of the Exhibit 26 regulation is not applicable.



### **3.27 Socioeconomic Effects (Exhibit 27)**

The Trelina Solar Energy Center Project construction, operation, and maintenance will be analyzed to determine the socioeconomic effects in the vicinity of the Town of Waterloo. Economic impacts will be evaluated and described in the Article 10 Application, in compliance with Exhibit 27 requirements in 16 NYCRR § 1001.27, to determine potential socioeconomic impacts of the Project. The potential socioeconomic impacts include:

#### **On-Site construction work-force impacts**

Local construction employment will primarily benefit those in the construction trades, including equipment operators, truck drivers, laborers, and electricians. Estimates of the construction workforce will be provided in Exhibit 27 of the Application and will include a breakdown of the anticipated on-Site workforce by discipline for each quarter during the construction period, along with an estimate of the peak construction employment level. These estimates will be prepared based on the Applicant's experience with similar projects and will be customized to the Trelina Solar Energy Center Project.

#### **Direct effects**

Direct effects of the project include payroll and other expenditures. Local expenditures within the general area of Seneca County and the Finger Lakes Region will occur during the construction phase and are likely to include construction materials such as concrete, gravel, and re-bar. Estimates of direct spending will be developed by the Applicant and will be provided in Exhibit 27 of the Application.

#### **Indirect and induced effects**

Indirect effects arise from business-to-business spending, rather through direct spending by Trelina Solar Energy Center. Induced effects occur as money is recirculated through household spending patterns, generating additional local economic activity. A range of estimated indirect and induced effects will be developed and presented in Exhibit 27 of the Application. A qualitative discussion will address the annual net secondary effects from Facility construction.

**Post-construction direct effects**

Annual expenditures for direct O&M expenses include parts, supplies, road maintenance, landscape services, fuel, vehicle maintenance, tools, etc. Direct effects associated with O&M activities will be estimated by the Applicant based on the characteristics of the proposed Trelina Solar Energy Center and the Applicant's experience with similar projects. These estimates will be presented in Exhibit 27 of the Application.

**Post-construction secondary employment impacts**

Secondary (or indirect and induced) economic effects will result from O&M activities. A range of estimated indirect and induced effects will be developed and presented in Exhibit 27 of the Application. A qualitative discussion will address the annual net secondary effects from Facility construction.

**Construction and operation school district impacts**

Trelina Solar Energy Center encourages hiring local employees to fill temporary construction positions, as well as permanent operations jobs, to the extent possible. Further, families do not typically relocate for temporary construction jobs. As a result, there will be few, if any, new students enrolled in the area's schools and no adverse impact to the school districts in the area.

**Construction and operation impacts of municipal, public authority, and utility services**

Trelina Solar Energy Center will coordinate with the Town of Waterloo, Seneca County utilities and emergency services providers to ensure that public services and health and safety are not negatively impacted by the Project. The Seneca County Sheriff's office, NY State Police, and local fire and ambulance departments have adequate resources to monitor any vehicular traffic from construction and operations activities on area roads, to address routine medical needs and to address any law enforcement or public safety issues that may occur.

Trelina Solar Energy Center employees will be trained in fire safety and high voltage. It is anticipated that local fire and ambulance personnel would primarily be attending any injuries or medical situations at ground level.

All solar arrays will be sited with adequate setback from residences, structures, roads, utilities, and property lines to ensure that any fire or collapse will not impact the health and safety of



area residents. Trelina Solar Energy Center will continue to coordinate with municipal officials and emergency services providers and provide an update to this information in Exhibit 27 of the Application, including any training needs or equipment deficiencies that may be identified in order to address any contingency plans for emergency response.

The Project will have no need for potable water connection or wastewater connection and therefore will not impact any public infrastructure beyond local roadways, which will be returned to at least pre-existing conditions following the completion of construction if necessary. Similarly, there will be no incremental costs for solid waste disposal, as waste disposal will be limited to small amounts of solid waste (paper, rags, packing cardboard) and will be recycled or disposed of properly by Project work crews in designated receptacles for disposal in properly licensed off-Site landfills.

#### **Designated tax jurisdiction, tax, and payment impacts**

The following entities have tax assessment jurisdiction on parcels within the Project Area (Figure 13 for locational reference):

- Seneca County
- Town of Waterloo
- Geneva City School District
- Waterloo Central School District
- Waterloo Volunteer Fire Department

Trelina Solar Energy Center anticipates that these entities will benefit from taxes on Project components sited within their jurisdictions. The Applicant anticipates entering into a PILOT agreement and/or Host Community Agreement. Trelina Solar Energy Center will continue to coordinate with municipal officials and provide an update in Exhibit 27 of the Application based upon publicly available information.

#### **Smart growth public infrastructure compliance impacts**

New York ECL Article 6, § 0107 requires that the construction of new or expanded “public infrastructure” meet certain Smart Growth criteria. The Project is a privately funded, merchant energy project and as such is not subject to ECL § 6-0107. Nevertheless, the Application will include a discussion of the Project’s consistency with the criteria, as applicable.

### **Proposed Studies**

The Applicant proposes to collect, evaluate, and provide the following information to support and prepare Exhibit 27 of the Application in accordance with 16 NYCRR § 1001.27:

- (a) An estimate of the average construction work force by discipline, for each quarter, during the period of construction; and an estimate of the peak construction employment level. The estimate will be based on the actual number of jobs budgeted for the Project, as well as the Applicant's prior industry experience with similarly situated projects.
- (b) An estimate of the annual construction payroll, by trade, for each year of construction and an estimate of annual direct non-payroll expenditures likely to be made in the vicinity of the Project (materials, services, rentals, and similar categories) during the period of construction.
- (c) A range of estimates of the annual secondary employment and economic activity likely to be generated in the vicinity of the Project by the construction of the solar facility, to reflect the uncertainty associated with such, possibly multiplier-based, secondary impact estimates. A qualitative discussion will address the annual net secondary effects from Project construction.
- (d) An estimate of the number of jobs and the on site payroll, by discipline, during a typical year once the Project is in operation, and an estimate of other expenditures likely to be made in the vicinity of the Project during a typical year of operation. The Applicant should rely, as much as practicable, on the actual number of jobs budgeted for the Project, as well as the Applicant's prior industry experience with similarly situated projects.
- (e) A range of estimates of the annual secondary employment and economic activity likely to be generated in the vicinity of the Project by its operation, to reflect the uncertainty associated with such, possibly multiplier-based, secondary impact estimates. A qualitative discussion will address the annual net secondary effects from Project operation.

- (f) An estimate of incremental school district operating and infrastructure costs due to the construction and operation of the Project. This estimate is to be made after consultation with the affected school district.
- (g) An estimate of incremental municipal, public authority, or utility operating and infrastructure costs that will be incurred for police, fire, emergency, water, sewer, solid waste disposal, highway maintenance and other municipal, public authority, or utility services during the construction and operation phases of the Project (this estimate is to be made after consultation with the affected municipalities, public authorities, and utilities).
- (h) An identification of jurisdictions that levy real property taxes or benefit assessments or user fees upon the Project Area, its improvements and appurtenances and any entity from which PILOTs will or may be negotiated.
- (i) For each jurisdiction, an estimate of the incremental amount of annual taxes (and PILOTs, benefit charges and user charges) projected to be levied against the post-construction Project Area, its improvements, and appurtenances.
- (j) For each jurisdiction, a comparison of the fiscal costs to the jurisdiction that are expected to result from the construction and operation of the Project to the expected tax revenues (and PILOTs, benefit charge revenues and user charge revenues) generated by the Project.
- (k) An analysis of whether all contingency plans to be implemented in response to the occurrence of a fire emergency or a hazardous substance incident can be fulfilled by existing local emergency response capacity, and in that regard identifying any specific equipment or training deficiencies in local emergency response capacity (this analysis to be made after consultation with the affected local emergency response organizations).
- (l) Although not required by ECL 6-0107, Exhibit 27 of the Application will present a detailed statement of how the proposed Project and interconnections are consistent

with each of the applicable state smart growth public infrastructure criteria specified in ECL § 6-0107, or why compliance would be impracticable.

- (m) A summary of available information on the feasibility of providing local access to energy generation by the Project.
- (n) A commitment by the Applicant to track and report the actual number of direct jobs created during the construction and operational phases of the Project, as well as the tax payment to local jurisdictions made during the course of the Project.
- (o) The Applicant will make available any workpapers associated with its socioeconomic impact estimates.

### 3.28 Environmental Justice (Exhibit 28)

Potential Environmental Justice Areas are defined by New York 6 NYCRR § 487.3 as areas with populations that meet one or more of the following thresholds:

- 51.1% or more of the population in an urban area reported themselves to be members of minority groups; or
- 33.8% or more of the population in a rural area reported themselves to be members of minority groups;<sup>2</sup> or
- 23.59% or more of the population in an urban or rural area had household incomes below the federal poverty level.

The Project Area, including a half-mile buffer around it, is wholly contained within the following:

- Census Tract 9506, Block Groups 3 and 4 in Seneca County
- Census Tract 9507, Block Groups 1 and 3 in Seneca County
- Census Tract 504, Block Group 2 in Ontario County
- Census Tract 515, Block Group 1 in Ontario County
- Census Tract 517, Block Group 2 in Ontario County
- Census Tract 518, Block Group 2 in Ontario County

Table 3 below provides the most current data from the U.S. Census Bureau's American Community Survey regarding poverty level and minority populations. Based on the review of the minority and low-income population of these Census Block Groups, the proposed location is adjacent to a Potential Environmental Justice Area, as defined by the State of New York.

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<sup>2</sup> *Minority population* means a population that is identified or recognized by the U.S. Census Bureau as Hispanic, African-American or Black, Asian and Pacific Islander, or American Indian.

**Table 3. Low-Income and Minority Populations within the Project Area and Half-Mile Buffer Area**

County	Census Tract	Census Block Group	Income in Past 12 Months Below Poverty Level	Minority (non-White, non-Hispanic) Population
Seneca	9506	3	5%	1%
Seneca	9506	4	3%	4%
Seneca	9507	1	1%	5%
Seneca	9507	3	8%	0%
Ontario	504	2	3%	10%
Ontario	515	1	35%	29%
Ontario	517	2	29%	34%
Ontario	518	2	30%	37%

*Source: 2013-2017 American Community Survey (ACS) 5-Year Estimate*

Exhibit 28 requires the Applicant to provide sufficient information for an assessment of the potential impact of the Project on Environmental Justice communities. The intent of an Environmental Justice evaluation is to determine if air quality and associated health impacts are disproportionately affecting certain communities or populations. To guide such an evaluation, NYSDEC promulgated Commissioner Policy 29 (CP-29), entitled Environmental Justice and Permitting. CP-29 has limited applicability, applying only to applications for major projects and major modifications for permits relating to water pollution, air pollution, solid and hazardous waste management, and siting of industrial hazardous waste facilities. The Project will not require any such permits. Accordingly, CP-29 is not applicable to the Project. The Project will have no air emissions during operation, and, accordingly, CP-29 and NYSDEC regulations do not apply and the Environmental Justice Analysis outlined in 6 NYCRR § 487.6 is not required and will not be provided in the Article 10 Application.

To date, Trelina Solar Energy Center has received no comments concerning Environmental Justice.

### **Proposed Studies**

The Applicant proposes to collect, evaluate, and provide the following information to support and prepare Exhibit 28 of the Application in accordance with 16 NYCRR § 1001.28:

- (a) The Application will reference minority population and household income data from the U.S. Census Bureau, 2012-2016 American Community Survey 5-Year Estimates for the Census Block Group(s) and Tract(s) in which the Project Area is located. This data

will be compared with the thresholds of 6 NYCRR § 487.3 for determining Potential Environmental Justice Areas. This Exhibit will include a statement that because (a) the proposed project impact area is not in a Potential Environmental Justice Area, as defined by 6 NYCRR § 487.6; (b) there will be no air emissions during operation; and (c) any vehicle/equipment emissions during construction will not affect the EJ area due to distance the Project will not negatively impact this or any other environmental justice areas. Therefore, the full Environmental Justice Analysis provided by 6 NYCRR § 487.6 is not required.

(b) A map of environmental justice areas in relation to Project facilities.





### **3.29 Site Restoration and Decommissioning (Exhibit 29)**

At the end of the useful economic life of the Project, the Project will either continue operations, be repowered, or be decommissioned. In the event that the Project permanently ceases operations, the Decommissioning Plan will be implemented to remove and recycle, to the maximum extent practicable, equipment and related materials in order to essentially return the Project Area to substantially the same condition as its pre-construction condition so that it is available for agriculture and other open space usage as determined by each landowner.

The decommissioning of the Project is, in many ways, the reverse of its construction. Much of the same equipment that was used in the construction of the Project, such as trucks, backhoes, etc., will again be used in the decommissioning and removal of the components. Large quantities of steel, cable and concrete will be removed and transported off-Site for recycling and/or disposal at approved facilities. Off-Site disposal facilities will be identified at the time of decommissioning, as availability of facilities is likely to change in the decades during the Project's useful economic life. The Project will work with local officials, state agencies and landowners to ensure minimal environmental impact to the area.

In general, the decommissioning of the Project will begin with the disconnection of the collection cables from each solar array. Collection cables will be removed and recycled, while any underground sections will be abandoned in place in order to mitigate environmental impacts or may be pulled up and recycled, as will be determined in consultation with the landowner and in accordance with such requirements as may be applicable as determined by the Siting Board. Collection cable support towers/poles will be removed and recycled.

Each solar array would then be deconstructed with the removal of panels, supports, and posts in that order. Security fencing will be removed and recycled and/or disposed of. Access roads will be left in place for the use of the landowners or removed at landowner discretion if they do not intend to make use of the access roads. Disturbed areas will be regraded, topsoiled, and seeded to the extent necessary. It is anticipated that the decommissioning of the Project would take up to a year to complete (more if any permitting is required).

If conditions permit, after the useful life of the Project, the Applicant may "repower" the Project, if circumstances permit. When a location with good solar resources and sufficient transmission capacity is found, combined with landowners and a community willing to host a solar energy

project, the Applicant may want to stay in that area and produce solar energy as long as is possible. Regardless, the Applicant will be prepared to decommission the Project and fulfill its obligations when the time comes.

Trelina Solar Energy Center is contractually obligated with the landowners to remove improvements, including solar arrays, foundations, and other facilities to a depth of at least three feet below the surface and restore the property to substantially the same condition that existed immediately prior to construction. In addition to the contractual obligations, decommissioning plan funding will be described consistent with the requirements of 16 NYCRR § 1001.29. The details of the decommissioning plan will be provided in Exhibit 29 of the Application.

### **Proposed Studies**

The Applicant proposes to collect, evaluate, and provide the following information to support and prepare Exhibit 29 of the Application in accordance with 16 NYCRR § 1001.29:

- (a) A statement of the performance criteria proposed for site restoration in the event the Project cannot be completed and for decommissioning of the Project, including a discussion of why the performance criteria are appropriate. Among other things, the statement shall address:
  - (i) Safety and the removal of hazardous conditions;
  - (ii) Environmental impacts;
  - (iii) Aesthetics;
  - (iv) Salvage and recycling;
  - (v) Potential future uses for the site; and
  - (vi) The useful life of the Project.
- (b) A plan for the decommissioning and restoration of the Project Area including how such decommissioning and restoration shall be funded and a schedule with defined period of time for determining when to conduct decommissioning and site restoration activities. This plan shall include a detailed preliminary estimate to support the proposed decommissioning and site restoration funding upon cessation and operation

of the Project based on decommissioning and site restoration costs from similar projects (if similar costs are available). The plan will also include:

- (i) A detailed cost estimate for site restoration activities and decommissioning of the Project. In addition, the Application will include the proposed type of, and justification for, the financial assurance that will be provided for decommissioning and restoration;
  - (ii) A procedure and schedule for notifying local municipalities and landowners prior to decommissioning and restoration activities; and
  - (iii) A description of proposed agricultural restoration techniques to be used during site restoration and decommissioning will be provided in accordance with applicable NYSDAM guidelines, to the maximum extent practicable.
- (c) There are no wind power facilities proposed as part of the Project, therefore this section of the Exhibit 29 regulation is not applicable.
- (d) No nuclear power facilities are proposed as part of the Project; therefore this section of the Exhibit 29 regulation is not applicable.



### **3.30 Nuclear Facilities (Exhibit 30)**

There are no nuclear facilities included in the proposed Project. Therefore, this requirement is not applicable to the Trelina Solar Energy Center. Therefore, this information will not be included in the Application.



### 3.31 Local Laws and Ordinances (Exhibit 31)

The Trelina Solar Energy Center will be located in the Town of Waterloo, Seneca County, New York. The Applicant will consult with the Town during the Application process to identify the substantive provisions of applicable laws and ordinances that should be addressed in the Application.

In 2019, the Town of Waterloo adopted its Solar Energy Law (Chapter 134 of the year 2019, known as “Solar Energy Systems”). The law authorized the Town of Waterloo to “provide guidance for the proper site placement and regulation of solar energy systems...to promote the effective and efficient use of solar energy resources; and to protect the health, safety, and general welfare of the citizens of the Town of Waterloo.”

The Town of Waterloo Solar Energy Law classifies Solar Energy Systems into two types defined as follows:

- i. Small-Scale Solar Energy Systems that are ground-mounted or roof-mounted, produce energy primarily for the purpose of on-site use, do not exceed 1,000 square feet (based on the perimeter occupied by the solar panels), and produce less than 25 kW.
- ii. Large-Scale Solar Energy Systems that are ground-mounted, greater than 1,000 square feet (based on the perimeter occupied by the solar panels), and produce more than 25 kW for the purpose of off-site sale or consumption.

The Trelina Solar Energy Center would be considered a Large-Scale Solar Energy System. The procedural and substantive requirements described below are based upon the Town’s Solar Law for Large-Scale Solar Energy Systems and applicable portions of the Town’s Zoning Ordinance.

#### **A. Local Procedural Requirements**

Below is a preliminary list of local laws and ordinances of a procedural nature that may be applicable to the construction and operation of the Trelina Solar Energy Center Project in the absence of Article 10:

*Town of Waterloo – Chapter 134 “Solar Energy Systems”:*

- *134.6.B. Permitting*

- (1) All Large-Scale Solar Energy Systems are permitted through the issuance of a Special Use Permit and permitted in the following zoning districts: Industrial (I) and Agricultural (A), subject to the requirements set forth in this section, including site plan approval. Applications for the installation of Large-scale solar energy system shall be reviewed by the Code Enforcement Officer and referred, with comments to the Planning Board for its review and action, which can include approval with conditions, or denial.
- (2) Applications for large-scale solar energy systems that are subject to independent professional services for inspection, engineering and legal consultation will be the responsibility of the Applicant. If additional funds are needed in the fee account, the Planning Board will obtain an estimate from the consultant as to the amount necessary for completion of the remaining review(s). Said amount is to be paid by the Applicant to any further work being done by the consultant. Balance of the deposit will be returned upon completion of the project. The Planning Board will provide the Applicant in advance with established billing rates for engineering and legal services.
- (3) Special use permit application requirements. In addition to the requirements set forth in § 135-8 of the Town’s Zoning Ordinance, the following information must be included with an application for a special use permit for large-scale solar energy systems.
  - a) If the property of the proposed project is to be leased, legal consent between all parties, specifying the use(s) of the land for the duration of the project, including easements and other agreements, shall be submitted.
  - b) A letter providing proof of feasibility from the local utility company is to be provided as part of the application indicating that utility company can handle the demands of the proposed project.
  - c) A boundary survey prepared by a New York State licensed professional is to be provided, including the metes and bounds,



monumentation, tax map information, property acreage, and easements.

- d) Plans showing the layout of the solar energy system signed by a professional engineer or registered architect shall be required. A photograph of the site is also required.
- e) The equipment specification sheets shall be documented and submitted for all photovoltaic panels, significant components, mounting systems, and inverters that are to be installed.
- f) Plans and drawings for the Large-scale energy system signed by a Professional Engineer showing the proposed layout of the solar energy system along with providing a description of all components, existing vegetation, any proposed clearing and grading of the lot(s) involved, any anticipated or possible storm water or erosion disturbances, and utility lines (both above and below ground) on the site and adjacent to the site.
- g) A Property Operation and Maintenance Plan which describes all ongoing or periodic maintenance of the large-scale solar energy system and property upkeep, such as mowing, trimming, safety concerns, and access. The Property Operation and Maintenance Plan shall include details about the proposed use or uses of the remaining property not used for the large-scale solar energy systems, as well as ingress and egress to all portions of the property.
- h) Decommissioning plan. To ensure the proper removal of a large-scale solar energy system, a decommissioning plan shall be submitted as part of the application. Compliance with this plan shall be made a condition of the issuance of a special use permit under this section.

[1] In the event that the owner or lessee of any large-scale solar energy system ceases for a period of six (6) months to use or operate the said system or in the event the said system fails to generate electrical energy, as supported by metered use thereof, for a period of six (6) months, then in either event such by the owner or lessee. If the

owner or lessee does not voluntarily dismantle the facility and remove the same from the site upon the occurrence of either event, the Code Enforcement Officer may recommend to the Town Board that the Town Board declare the system abandoned based on either or both events and the Town Board, upon receiving the recommendation of the Code Enforcement Officer and holding a hearing on due notice to the property owner and operator of the facility, may declare the system abandoned and order the dismantling and removal of the system by the owner and/or operator or, after the passing of 30 days from the date the Planning Board declares the facility abandoned, by Town staff or by a third party on contract with the Town. Failure to dismantle and remove a facility and restore the site to its natural state within 30 days after said facility has been declared abandoned by the Planning Board upon recommendation of the Code Enforcement Officer will result in forfeiture or the filing of a claim against the performance surety bond posted by said owner or lessee of said facility, as provided in § 134.6(1) (h)(4) herein. The Town may also impose a lien on the property to cover removal costs, plus a service charge of 25% thereof, to cover the cost of supervision and administration, to the Town, and such amount shall be assessed against the property on which the facility was situated. The amount so assessed shall constitute a lien and charge on the real property on which it is levied until paid or otherwise satisfied or discharged and shall be collected in the same manner and at the same time as other Town taxes and charges.

- [2] The plan shall demonstrate how the removal of all infrastructure both above and below ground and the remediation of soil and vegetation shall be conducted to

return the parcel to the condition the property was in prior to the installation of the large-scale solar energy system.

- [3] The plan shall also include an expected timeline for execution.
  - [4] A cost estimate detailing the projected cost of executing the decommissioning plan shall be prepared by a professional engineer. Cost estimations shall take into account inflation. A decommissioning performance surety bond shall be issued to the Town of Waterloo in that amount and shall remain in effect for as long as the large-scale energy system is in existence. The bond amount shall equal the decommissioning and reclamation costs for the entire system. The bond must remain valid until the decommissioning obligations have been met. A 20-year bond will be required for all large-scale solar energy systems, which will require renewal after fifteen (15) years, for an additional twenty (20) years. The cost estimate shall be reviewed by the Town Engineer and approved by the Town Attorney.
  - [5] Removal of large-scale solar energy systems must be completed in accordance with the decommissioning plan.
  - [6] If the large-scale solar energy system is not decommissioned after being considered abandoned, the Town may remove the system and restore the property and impose a lien on the property to cover these costs to the municipality, and collect such amounts in the same way as other Town taxes, in addition to any other remedies available to the town.
- i) Construction schedule. Applicants must submit a proposed schedule for the completion of the project, including the proposed start date and proposed date of substantial completion, the expected date of connection to the power grid,

and the expected date on which operation of the photovoltaic system shall commence.

**Local Procedural Requirements to be Implemented by Municipality to be Authorized by the Siting Board**

At this time, the Applicant is not requesting the Siting Board to authorize a municipality to implement any local procedural requirements. The Applicant is currently engaged in discussions with Seneca County discussing the review with respect to the New York State Uniform Fire Prevention and Building Code.

**B. Local Substantive Requirements**

Below is a preliminary list of local laws and ordinances of a substantive nature that may be applicable to the construction and operation of the Trelina Solar Energy Center Project. The substantive requirements described below are based upon the Town's current Solar Law, effective 2019.

- *134.6.(4) Special use permit standards.*

No special use permit for a large-scale solar energy system shall be issued unless the Planning Board specifically finds that the proposed project is in compliance with each of the following:

- a) Setbacks. Large-scale solar energy systems shall be sited to create a front setback of no less than 200 feet from the right-of-way line of the road and setbacks of 100 feet from all side and rear property lines. In addition, no large-scale solar energy system shall be located closer than 300 feet from any residential structure located on another parcel.
- b) Height. No part of the large-scale solar energy systems shall exceed ten (10) feet in height when oriented at maximum tilt.
- c) Lot coverage. A large-scale solar energy system that is ground mounted shall not exceed 50% of the lot on which it is installed. The entire surface area of the solar panels shall be included in the total area regardless of the method by which the panels are supported or attached to the ground, or the angle at which they are placed.
- d) Large-scale solar energy systems shall be located on lots with a minimum size of one (1) acre.

- e) Security. All large-scale solar energy systems shall be enclosed by fencing to prevent unauthorized access. Warning signs with the property owner's contact information shall be placed on the entrance and perimeter of the property and of the solar energy system. Any fencing shall include screening of said fencing.
- f) All access roads and paths required for the project shall be integrated into other uses on the property, if possible. Access road siting and grading shall be designed to minimize any negative impacts from stormwater drainage.
- g) All Large-Scale Solar Energy Systems shall be adequately screened, to avoid adverse aesthetic impacts.

*Consistency with Substantive Requirements*

At this time, the Applicant is currently evaluating the local substantive requirements of the effective zoning regulations to determine whether there are any that are unreasonably burdensome in terms of existing technology, cost/economics, or consumer needs. This analysis will be presented in the Application, together with any requests to the Board that a local substantive provision not be applied, together with the required justification per the Article 10 regulations. If, at any time thereafter, the Applicant determines that it cannot comply with any of the substantive requirements identified above, the Applicant will request that the Siting Board not apply such law(s) and will include a statement justifying those requests.

**C. Zoning Designation**

The Town of Waterloo has adopted zoning regulations (last amended May 2018). The following provides a summary of the substantive provisions of zoning regulations applicable to the Project.

*Town of Waterloo – Chapter 135- Zoning*

The Project Area is wholly located within the Agricultural (A), Low-Density Residential (R1), and Commercial (C) Zoning Districts. Principal permitted uses within the Agricultural District include the following:

- Residential: Dwelling, two-family.

- Accessory: Garage and similar use accessory to a dwelling, Stable: private (owner's use only).
- Community Services: Church, public place of worship and related facility, Nursery school; day-care facility, Nursing home; health-related clinic, Government building, public/private school, Ambulance/fire service, Park, playground, noncommercial.
- Commercial: Commercial plant nursery/greenhouse. Farming: crops, dairy, livestock (except poultry and hogs). Golf Course, including restaurant and driving range, Retail sales/service: agricultural equipment.
- Industrial: Public Utility: local service and distribution, Public Utility: substation or transmission line.
- Other: Cemetery, Public/private club.

Principal permitted uses within the Low-Density Residential District include the following:

- Accessory: Garage and similar use accessory to a dwelling,
- Community Services: Church, public place of worship and related facility, Park, playground, noncommercial.
- Commercial: Farming: crops, dairy, livestock (except poultry and hogs). Golf Course, including restaurant and driving range.
- Industrial: Public Utility: local service and distribution,

Principal permitted uses within the Commercial District include the following:

- Accessory: Garage and similar use accessory to a dwelling,
- Community Services: Community residence, Church, public place of worship and related facility, Nursery school; day-care facility, Nursing home; health-related clinic, Government building, public/private school, Ambulance/fire service, Park, playground, noncommercial.
- Commercial: Commercial plant nursery/greenhouse, bed-and-breakfast facility, rooming house; tourist home, home occupation or business, veterinary office or hospital, motel/hotel, professional or business office (not in home), bank; financial institution, retail sales/service and storage, general; food, clothing, furniture, carpets, hardware, lawn and garden supply, pets and similar goods, paint, lumber and other building materials and supplies, plumbing, heating, cooling, electrical supplies and equipment, industrial equipment, agricultural

equipment, marine and water-oriented, mobile home, RV, snowmobile and similar item requiring outdoor display, Restaurant, tavern, barber/beauty shop, laundromat and similar personal service (not a home occupation, convenience (mini) mart, mini warehouse for self-storage rentals, vehicular fuel and service, new and used car sales, service, and repair, car wash, printing/publishing (not home occupation), commercial assembly: jewelry, leather, fabric, scientific instruments and similar small items, general processing, light manufacturing, assembly, scientific, agricultural, industrial, and similar research, design and production, public utility: local service and distribution, marina with docking facilities, and golf course, including restaurant and driving range.

As mentioned above, Large-Scale Solar Energy Systems are permitted through the issuance of a special use permit and permitted in the Industrial (I) and Agricultural (A) Zoning Districts.

*Town of Waterloo – Article 6 General Provisions and Article 7 Supplementary Regulations*

A number of other substantive zoning regulations will be assessed in the Article 10 Application for their applicability to the Project. These regulations include the substantive provisions of the following zoning sections:

- § 135-6 – H. Lot in two districts
- § 135-6 – I. Drainage ways
- § 135-6 – J. Rubbish and junk
- § 135-6 – K. Excavation, filling, or grading
- § 135-6 – L. General performance standards
- § 135-6 – N. Fences erected on residential lots or on land adjacent to residential lots
- § 135-7 – B. Site Plan Review
- § 135-7 – C. Floodplains
- § 135-7 – D. Private Roads
- § 135-7 – E. Signs

### **Proposed Studies**

The Applicant proposes to collect, evaluate, and provide the following information to support and prepare Exhibit 31 of the Application in accordance with 16 NYCRR § 1001.31:

- (a) A list and copies, in electronic form, of all local ordinances, laws, resolutions, regulations, standards and other requirements applicable to the construction and operation of the Project that are of a procedural nature for those towns within the Project Area. These local procedural requirements are supplanted by PSL Article 10 unless the Board expressly authorizes the exercise of the procedural requirement by the local municipality or agency.
- (b) A list and copies, in electronic form, of all local procedural requirements required to be identified pursuant to section (a) of this exhibit for which the Applicant requests that the Board expressly authorize the exercise of the procedural requirement by the local municipality or agency, including a statement why such local exercise would be desirable or appropriate.
- (c) Identification of the local agency qualified by the Secretary of State that shall review and approve the building plans, inspect the construction work, and certify compliance with the New York State Uniform Fire Prevention and Building Code, the Energy Conservation Construction Code of New York State, and the substantive provisions of any applicable local electrical, plumbing or building code.
- (d) Identification and copies, in electronic form, of all local ordinances, laws, resolutions, regulations, standards and other requirements applicable to the construction and operation of the Project that are of a substantive nature, together with a statement that the location of the Project as proposed conforms to all such local substantive requirements, except any that the Applicant requests that the Siting Board elect to not apply. Copies of zoning, flood plain and similar maps, tables and/or documents shall be included in the Exhibit when such are referenced in such local substantive requirements. Pursuant to PSL § 168(3) (e), the Siting Board must find that the Project is designed to operate in compliance with these local substantive requirements, all of which shall be binding upon the Applicant, unless the Siting Board elects to not apply them by finding that, as applied to the proposed Project such are



unreasonably burdensome in view of the existing technology or the needs of or costs to ratepayers whether located inside or outside of such municipality.

- (e) A list of all local substantive requirements required to be identified pursuant to subdivision (d) of this Exhibit for which the Applicant requests that the Siting Board elect to not apply them by finding that, as applied to the Project such are unreasonably burdensome in view of the existing technology or the needs of or costs to ratepayers whether located inside or outside of such municipality. For each local substantive requirement identified, a statement justifying the request shall be provided. The statement of justification shall show with facts and analysis the degree of burden caused by the requirement, why the burden should not reasonably be borne by the Applicant, that the request cannot reasonably be obviated by design changes to the Project, the request is the minimum necessary, and the adverse impacts of granting the request are mitigated to the maximum extent practicable. The statement shall include a demonstration:
  - (i) For requests grounded in the existing technology, that there are technological limitations (including governmentally imposed technological limitations) related to necessary Project component bulk, height, process, or materials that make compliance by the Applicant technically impossible, impractical, or otherwise unreasonable;
  - (ii) For requests grounded in factors of costs or economics (likely involving economic modeling), that the costs to consumers associated with applying the local substantive requirement outweigh the benefits of applying such provision; and
  - (iii) For requests grounded in the needs of consumers, that the needs of consumers for the Project outweigh the impacts on the community that would result from refusal to apply the local substantive requirement.
- (f) A list and copies, in electronic form, of any local ordinances, laws, resolutions, regulations, standards and other requirements applicable to the Project's interconnections in public rights of way, if any, that are of a procedural nature.

- (g) A list and copies, in electronic form, of any local ordinances, laws, resolutions, regulations, standards and other requirements applicable to the Project's interconnections in public rights of way, if any, that are of a substantive nature.
- (h) A list of all local procedural or substantive requirements required to be identified pursuant to subdivisions (f) and (g) of this Exhibit for which the Applicant requests that the Siting Board elect to not apply them by finding that, as applied to the proposed Project interconnections such are unreasonably burdensome in view of the existing technology or the needs of or costs to ratepayers whether located inside or outside of such municipality. For each local procedural or substantive requirement identified, a statement justifying the request shall be provided. The statement of justification shall show with facts and analysis the degree of burden caused by the requirement, why the burden should not reasonably be borne by the Applicant, that the request cannot reasonably be obviated by design changes to the proposed Project, the request is the minimum necessary, and the adverse impacts of granting the request are mitigated to the maximum extent practicable. The statement shall include a demonstration:
  - (i) For requests grounded in the existing technology, that there are technological limitations (including governmentally imposed technological limitations) related to necessary Project component bulk, height, process, or materials that make compliance by the Applicant technically impossible, impractical, or otherwise unreasonable;
  - (ii) For requests grounded in factors of costs or economics (likely involving economic modeling), that the costs to consumers associated with applying the local substantive requirement outweigh the benefits of applying such provision; and
  - (iii) For requests grounded in the needs of consumers, that the needs of consumers for the Project outweigh the impacts on the community that would result from refusal to apply the local substantive requirement.
- (i) A summary table of all local substantive requirements required to be identified pursuant to subdivisions (d) and (g) of this exhibit in two columns listing the provisions

in the first column and a discussion or other showing demonstrating the degree of compliance with the substantive provision in the second column.

- (j) An identification of the zoning designation or classification of all lands constituting the site of the proposed Project and a statement of the language in the zoning ordinance or local law by which it is indicated that the proposed Project is a permitted use at the proposed site. If the language of the zoning ordinance or local law indicates that the proposed Project is a permitted use at the proposed site subject to the grant of a special exception, a statement of the criteria in the zoning ordinance or local law by which qualification for such a special exception is to be determined.



### 3.32 State Laws and Regulations (Exhibit 32)

The Applicant has compiled a preliminary list of permits and other authorizations required by state agencies to approve the construction of the Project (see Table 5). Throughout the duration of the Article 10 preparation process, the Applicant will coordinate with agencies listed in Table 5 and provide an updated table upon submission of the Application. Table 5 indicates each permit or other authorization and the associated regulatory agency, requirements, preliminary studies and Application requirements, and an estimated agency review time.

**Table 5. State Reviews, Permits and Approvals**

Permit/ Clearance	Regulator y Agency <sup>1</sup>	When Required	Potential Studies & Application Requirements	Status and Estimated Approval Times
Article 10 Siting Certificate	Siting Board	Construction and operation of major electric generating facilities pursuant to Article 10 of the Public Service Law	Article 10 Application to be prepared in accordance with 16 NYCRR Chapter X (Certification of Major Electric Generating Facilities)	Final Public Involvement Program Plan (PIP Plan) filed in May 2019.
Possible Certificate of Public Convenience and Necessity (PSL § 68)	New York State Public Service Commissi on	Projects generating 80 MW or greater	Permission required per regulatory requirements as interpreted by Siting Board in Cassadaga decision	Concurrent with Article 10 Application review and approval.
Stormwater Permit (SPDES GP-0-15-002)	NYSDEC	Soil disturbance of one (1) or more acre	Preparation of a SWPPP	Authorization under this General Permit is coordinated as part of the Article 10 process.
Water Quality Certification (Section 401 of the Clean Water Act [CWA])	Siting Board	Projects whose effluent discharges could affect waters of the U.S.	Analyses for this Application are ongoing	Issuance will be coordinated as part of the Article 10 process.

Permit/ Clearance	Regulator y Agency <sup>1</sup>	When Required	Potential Studies & Application Requirements	Status and Estimated Approval Times
Historic Preservation Act (Section 14.09)	SHPO	Project must go through review/consultation to determine whether it will affect historic or culturally significant properties.	Phase I Assessment may be required	Project has been preliminarily reviewed on SHPO CRIS.
Agricultural and Markets Law – Article 25-AA	NYSDAM	Consultation required as Project is located within certified Agricultural Districts	Review of Agricultural District Mapping & Coordination with NYSDAM	Consult with NYSDAM for recommendations on how to minimize impacts to agricultural operations as part of the Project. Consultation will be incorporated into Article 10 process.
Interconnection Studies	NYISO	Prior to commencing Generator Interconnection Agreement negotiations.	System Reliability Impact Study and Facility Study	SRIS is complete,  Facility Study in progress with expected completion August 2020.

### Compliance with State Requirements

The Applicant intends to build and operate the Project in accordance with state laws and regulations as described herein.

### Proposed Studies

Exhibit 32 of the Board's regulation provide that before preparing the Exhibit required by this section, the Applicant shall consult with the state agencies and authorities whose requirements are the subject of the Exhibit to determine whether the Applicant has correctly identified all such requirements.

The Applicant proposes to collect, evaluate, and provide the following information to support and prepare Exhibit 32 of the Application in accordance with 16 NYCRR § 1001.32:

- (a) A list of all state approvals, consents, permits, certificates, or other conditions for the construction or operation of the proposed Project (including interconnection electric transmission lines and fuel gas transmission lines that are not subject to review under Article VII of the PSL) of a procedural nature. These state procedural requirements are supplanted by PSL Article 10, except for permits to be issued by the NYSDEC pursuant to federal recognition of state authority, or pursuant to federally delegated or approved authority, in accordance with the CWA, the CAA and the Resource Conservation and Recovery Act, and permits pursuant to Section 15-1503, Title 9 of Article 27, and Articles 17 and 19 of the ECL, unless the Siting Board expressly authorizes the exercise of such authority by the state agency. In addition to the Article 10 Application, the Applicant will apply to the PSC for a Certificate of Public Convenience and Necessity Pursuant to Section 68 of the PSL authorizing the exercise of municipal rights to occupy municipal property and for other authorization as clarified by the Siting Board in its Cassadaga decision issuing the certificate.
- (b) A list of all state procedural requirements required to be identified pursuant to subdivision (a) of this section for which the Applicant requests that the Siting Board expressly authorize the exercise of such authority by the state agency, including a statement why such exercise would be desirable or appropriate.
- (c) A list of all state approvals, consents, permits, certificates, or other conditions for the construction or operation of the proposed Project (including interconnection electric transmission lines and fuel gas transmission lines that are not subject to review under Article VII of the PSL) of a substantive nature, together with a statement that the Project as proposed conforms to all such state substantive requirements. Pursuant to PSL § 168(3) (e), the Siting Board must find that the Project is designed to operate in compliance with these state substantive requirements, all of which shall be binding upon the Applicant.
- (d) A summary table of all state substantive requirements required to be identified pursuant to subdivision (c) of this section in two columns listing the provisions in the first column and a discussion or other showing demonstrating the degree of compliance with the substantive provision in the second column.

- (e) A list of all state approvals, consents, permits, certificates, or other conditions for the construction or operation of any proposed off site interconnections and ancillary features, that are not encompassed within the definition of Major Electric Generating Project. These state actions not for the construction or operation of the proposed Project are not supplanted by PSL Article 10 and may be state procedural requirements or state substantive requirements.



### 3.33 Other Applications and Filings (Exhibit 33)

The Applicant does not have any pending application or filing with the Siting Board or with any other governmental department, agency, or court of competent jurisdiction (state or federal) concerning the development of the Project.

#### **Federal Involvement**

Pursuant to 16 NYCRR § 1001.33(b), the following federal permits, consents, approvals, consultations, or licenses may be required for construction or operation of the Project:

##### United States Fish and Wildlife Service

- Endangered Species Act, § 7 Consultation

##### United States Army Corps of Engineers

- NHPA, § 106 compliance
- Section 404 or Nationwide Permit for Placement of Fill in Federal Jurisdictional Wetlands, Waters of the U.S.

The dates for these federal applications will be provided in the Application.

#### **Proposed Studies**

The Applicant proposes to collect, evaluate, and provide the following information to support and prepare Exhibit 33 of the Application in accordance with 16 NYCRR § 1001.33:

- (a) A statement whether the Applicant has pending, or knows of others who have pending, with the PSC or with any other governmental department, agency, or court of competent jurisdiction (state or federal), any application or filing which concerns the subject matter of the proceeding before the Siting Board. If any such applications or filings are pending, the Applicant shall state, for each application or filing, whether the granting of any such application or filing will have any effect on the grant or denial of a certificate, and whether the grant or denial of a certificate will have any effect upon the grant or denial of any such other application or filing. The Applicant shall notify the Secretary, presiding examiner and each party or any significant change in the status of each such application or filing.

- (b) An identification of any federal permits, consents, approvals, or license that will be required for the construction or operation of the Project. The Application shall specify the date on which an application for any such approval was made or the estimated date on which it will be made. The Applicant shall notify the Secretary, presiding examiner and each party of any significant change in the status of each such application.

### **3.34 Electric Interconnection (Exhibit 34)**

Interconnection to the electric transmission system will be achieved by using conventional, state of the art technology. Solar panels will generate power at a low voltage, which will be converted from DC to AC at the inverters. Medium voltage will be collected with a system comprised of underground cables and possibly overhead collection lines that will transmit power to a proposed, on-Site collection substation. The collection substation will then transform the power up to 115 kV and deliver the power to the adjacent proposed POI switchyard, to be constructed as part of the Project. The POI switchyard will be constructed by the Applicant and then transferred to NYSEG to own, maintain, and operate. The Applicant has requested interconnection of the Project to the New York electric transmission system by connecting to NYSEG's Border City to Station 122 115 kV transmission line.

The POI switchyard connects the proposed Project to the adjacent NYSEG transmission line. The distance from the switchyard to the existing transmission line has not yet been determined but is anticipated to be a few hundred feet or less and will be within the Project Area. Although underground cabling is the preferred option for the electrical collection system, overhead cables may be used where requested by landowners or where underground installation is prohibited or infeasible due to natural constraints such as streams or creek crossings, steep topography, bedrock etc.

The final routing of the collection system cables is dependent upon final solar array layout, land acquisition, access road layout, final collection substation siting and field surveys to minimize impacts to resources such as wetlands, forested areas, and agricultural lands. In addition to the electrical cables, the collection system will include fiber optic cables that will connect the Project's SCADA system for O&M communications. The conceptual design of the cable collection system will be provided in the Application.

#### **Proposed Studies**

The Applicant proposes to collect, evaluate, and provide the following information to support and prepare Exhibit 34 of the Application in accordance with 16 NYCRR § 1001.34:

- (a) The design voltage and voltage of initial operation;

- (b) The type, size, number, and materials of conductors;
- (c) The insulator design;
- (d) The length of the transmission line;
- (e) The typical dimensions and construction materials of the towers;
- (f) The design standards for each type of tower and tower foundation;
- (g) For underground construction, the type of cable system to be used and the design standards for that system;
- (h) For underground construction, indicate on a profile of the line the depth of the cable and the location of any oil pumping stations and manholes;
- (i) Equipment anticipated to be installed in both the proposed collection substation and 115 kV switchyard, including an explanation of the necessity of these components;
- (j) Any terminal facility;
- (k) The need for cathodic protection measures;
- (l) A description of installation methods proposed or used for collection lines. For the routing of collection system cables between the various solar arrays within the Project Area and to the Project collection substation, a conceptual design of the cable collection system will be provided along with a discussion of installation methods. In the event there are any overhead collection or transmission pole structures in agriculture fields, the NYSDAM will require that they be self-supporting, with no guy wires being located in agricultural land; and
- (m) In the event that overhead collection or transmission pole structures are proposed, associated impacts will be incorporated in the VIA.

### **3.35 Electric and Magnetic Fields (Exhibit 35)**

Minimal EMF are generated by the operation of solar facility components such as the electrical collection lines, and transformers. EMF strength decreases with the square of the distance from the source (the electric charges or currents) for power lines and the cube of the distance from point sources such as substations. The location of electrical collection cables and the location of the collection substation transformers and other electrical equipment inside a restricted area will provide separation of these components from the general public. As a result, EMF levels from Project components are expected to be limited or non-existent.

#### **EMF Study**

The DPS has issued EMF standards that describe measurement methods for compliance. The Applicant will follow these standards to guide the EMF study that will be included in the Application.

As mentioned above, the Applicant anticipates its electrical interconnection line will be located at a sufficient distance from existing structures so that any EMF levels that may be produced are well below the PSC guidelines.

#### **Proposed Studies**

The Applicant proposes to collect, evaluate, and provide the following information to support and prepare Exhibit 35 of the Application in accordance with 16 NYCRR §1001.35:

- (a) For the ROW of the proposed connecting transmission line, from the collection substation to the 115 kV switchyard and then the tap line to the existing NYSEG transmission line, providing the electrical interconnection between the proposed Project and the existing electric transmission and distribution system, identify, if applicable, every ROW segment having unique EMF characteristics due to structure types and average heights, corridor widths, and co-location of other transmission facilities in the ROW, if any. The distance of the tap from the switchyard to the existing transmission line has not yet been determined but is anticipated to be a few hundred feet or less and will be within the Project Area.

- (b) For each, if any, identified on site transmission ROW segment, provide both “base case” and “proposed” cross-sections to scale showing:
  - (i) All overhead electric transmission, sub-transmission, and distribution facilities, including the proposed Project showing structural details and dimensions and identifying phase spacing, phasing, and any other characteristics affecting EMF calculations;
  - (ii) All underground electric transmission, sub-transmission, and distribution facilities;
  - (iii) All underground gas transmission facilities;
  - (iv) All ROW boundaries; and
  - (v) Structural details and dimensions for all structures (dimensions, phase spacing, phasing, and similar categories), and include a Station number identifying the location.
- (c) A set of the aerial photos/drawings enhanced by showing the exact location of each:
  - (i) On site transmission corridor segment;
  - (ii) Cross-section; and
  - (iii) Nearest residence or occupied non-residential building in each identified ROW segment with a stated measurement of the distance between the edge of the ROW and the nearest edge of the residence or building.
- (d) An EMF study, if required, with calculation tables and field strength graphs for each identified segment cross-section, as follows:
  - (i) Signed and stamped or sealed by a licensed professional engineer registered and in good standing in the State of New York
  - (ii) Identification of the specific computer software program used to model the facilities and make the calculations
  - (iii) Regarding the electric fields, modeling of the circuits at rated voltage and electric field calculation tables and field strength graphs calculated at one meter above ground level with 5-foot measurement intervals depicting the width of the

entire ROW and out to 500 feet from the edge of the ROW on both sides including digital copies of all input assumptions and outputs for the calculations

- (iv) Regarding magnetic fields, modeling of the circuit phase currents equal to the summer-normal, summer short term emergency (STE Sum), winter-normal, and winter short term emergency (STE Win), loading conditions and magnetic field calculation tables and field strength graphs calculated at one meter above ground level with 5-foot measurement intervals depicting the width of the entire ROW and out to 500 feet from the edge of the ROW on both sides including digital copies of all input assumptions and outputs for the calculations
- (v) Regarding the magnetic fields, modeling of the circuit phase currents equal to the maximum average annual load estimated to be occurring on the power lines within ten years after the proposed Project is put in operation and magnetic field calculation tables and field strength graphs calculated at one meter above ground level with 5-foot measurement intervals depicting the width of the entire ROW and out to 500 feet from the edge of the ROW on both sides, including digital copies of all input assumptions and outputs for the calculation
- (vi) Regarding the magnetic fields, modeling of a “base case” with the circuit phase currents equal to the maximum average annual load currently estimated to be occurring on the existing power lines within the ROW (without construction or operation of the proposed Project) and magnetic field calculation tables and field strength graphs calculated at one meter above ground level with 5-foot measurement intervals depicting the width of the entire ROW and out to 500 feet from the edge of the ROW on both sides, including digital copies of all input assumptions and outputs for the calculations





### **3.36 Gas Interconnection (Exhibit 36)**

This requirement is not applicable to the Trelina Solar Energy Center, as there is no gas interconnection included in the proposed Project. Therefore, this information will not be included in the Application.



### **3.37 Back-up Fuel (Exhibit 37)**

This requirement is not applicable to the Trelina Solar Energy Center, as there is no back-up fuel required for the proposed Project. Therefore, this information will not be included in the Application.



### **3.38 Water Interconnection (Exhibit 38)**

This requirement is not applicable to the Trelina Solar Energy Center, as there is no public water supply interconnection required for the operation of the proposed Project. Therefore, this information will not be included in the Application.



### **3.39 Wastewater Interconnection (Exhibit 39)**

This requirement is not applicable to the Trelina Solar Energy Center, as there is no municipal wastewater interconnection required for the operation of the proposed Project. Therefore, this information will not be included in the Application.





### **3.40 Telecommunications Interconnection (Exhibit 40)**

The Project will require telecommunication services to support remote monitoring services. Exhibit 40 of the Application will describe the required bandwidth for this purpose, where physical connection would need to occur, what data networks and service providers are able to provide this service, the physical labor that would be required to provide this service, and the status of discussions and negotiations with service providers, if necessary.

Trelina Solar Energy Center anticipates that NYSEG will use a fiber system to communicate with and monitor the POI switchyard. As part of developing the Application, Trelina Solar Energy Center will consult with NYSEG on its communication requirements. The results and data collected as a result of this coordination with NYSEG will also be included in Exhibit 40 of the Application.

#### **Proposed Studies**

The Applicant proposes to collect, evaluate, and provide the following information to support and prepare Exhibit 40 of the Application in accordance with 16 NYCRR § 1001.40:

- (a) A detailed description of the proposed telecommunications interconnection, including all interconnecting facilities, line route, design details, size, functions, and operating characteristics.
- (b) An analysis demonstrating that there will be sufficient capacity to support the requirements of the Project.
- (c) A description of the status of negotiations, or a copy of agreements that have been executed, with companies or individuals for providing the communications interconnection including any restrictions or conditions of approval placed on the Project imposed by the provider, and a description of how the interconnection and any necessary system upgrades will be installed, owned, maintained and funded.
- (d) A description of probable environmental effects of the telecommunication interconnection to the extent information is available.



### **3.41 Applications to Modify or Build-Adjacent (Exhibit 41)**

The Project is not proposed to modify, or be built adjacent to, an existing electric generating Project and therefore the requirements of Exhibit 41 are not applicable to the Project. Therefore, this information will not be included in the Application.



## 4.0 Summary and Conclusions

The Applicant plans to submit an Application to construct a major electric generating facility, the Trelina Solar Energy Center, under Article 10 of the PSL. As required, the Applicant has prepared a PSS, the purpose of which is to describe the Project based upon reasonably available information, and propose the methodology, scope of studies, or program of studies to be conducted in support of an Application being submitted for the Project pursuant to Article 10. In support of this PSS, the Applicant has consulted with the public, affected agencies, and other stakeholders, as required by 16 NYCRR § 1000.5(b). Such consultations have been documented in the attached Meeting Log, which has been updated and submitted to the Siting Board on a regular basis. Input from this stakeholder outreach has helped to inform this PSS. The Applicant will continue to meet with the public, affected agencies and other stakeholders throughout the permitting process, and will use that information to refine and improve the Project.

The Project Area addressed in this PSS is comprised of locations being evaluated for placement of Project facilities. As shown in Figure 2, the Project Area is comprised of approximately 1,072 acres of land located in the Town of Waterloo, in Seneca County, New York. The Project will have a generating capacity of 79.5 to 80 MW of power located on land leased from owners of private property. Within the Project Area, it is anticipated that the proposed solar energy center would comprise an area of approximately 450 acres of land. Trelina Solar Energy Center, LLC intends to construct, own, operate, and maintain all components of the Project, with the exception of the POI switchyard. The switchyard will be constructed by Trelina Solar Energy Center and then transferred to NYSEG, which will own, operate, and maintain the switchyard.

Project facilities will include commercial-scale solar arrays, access roads, fencing, inverters, buried (and possibly overhead) electric collection lines, and electrical interconnection facilities. Trelina Solar Energy Center's interconnection facilities will include a collection substation, tap line up to several hundred feet long and within the Project Area, and POI switchyard. The POI switchyard, as noted previously, will be transferred to NYSEG to own, maintain, and operate. The proposed collection substation and interconnection facilities will be located on land within the Project Area, adjacent to NYSEG's existing Border City to Station 122 115 kV transmission line.

The proposed Project will have significant positive socioeconomic impacts in the Project Area, in Seneca County and beyond, through employment opportunities, specifically by generating temporary development and construction employment. In addition, payments to the municipalities are to be discussed and negotiated through development of a PILOT agreement and/or Host Community Agreement. Trelina Solar Energy Center will coordinate with municipal officials and provide an update on the status of these agreements as part of the Application.

By adding 79.5 to 80 MW of clean renewable solar power into the NYS energy market, the Project is consistent with the 2015 New York SEP and is instrumental in enabling the State to meet the 2030 targets of 40% reduction in GHG emissions from 1990 levels and 70% of electricity generation from renewable energy sources, zero emissions from the electric sector by 2040, as well as development of 6 GW of solar energy by 2025. The Project will also improve fuel diversity within NYS by increasing the amount of electricity produced by solar generation facilities.

As solar energy generates electricity without emitting pollutants, one of the greatest advantages of solar energy production is the maintenance of air quality. While very minor levels of air emissions may be produced during construction activities, this technology allows for production of electricity without creating any gaseous, liquid, or solid wastes, and therefore eliminates the need to treat, collect, transport, and dispose of such waste in any significant amount.

The Applicant has endeavored to provide as much information relative to the Project as is reasonably available per 16 NYCRR § 1000.5 (l). Table 6 below provides an overview of the 16 NYCRR § 1000.5 (l) requirements and the corresponding section within this PSS where the information has been addressed.

**Table 6. Content of Trelina Solar Energy Center PSS**

16 NYCRR Section	Article 10 PSS Requirement	Corresponding Section of the Trelina Solar Energy Center PSS	Notes
NYCRR § 1000.5 (l)(1)	As much information as is reasonably available concerning the proposed Project, generally in the form (though in less detail) that it will appear in the Application;	Section 2.0	Sections 2.1, 2.2, 2.3, 2.4 and 2.5 contain reasonably available information related to existing conditions, potential impacts and minimization/mitigation.
NYCRR § 1000.5 (l)(2)	A preliminary scope of an environmental impact analysis containing a brief discussion, on the basis of reasonably available information, of the following items:	Section 3.0	The detailed subsections of Section 3 (as described below) provide the preliminary scope of an environmental impact analysis based on reasonably available information.

16 NYCRR Section	Article 10 PSS Requirement	Corresponding Section of the Trelina Solar Energy Center PSS	Notes
NYCRR § 1000.5 (l)(2)(i)	A brief description of the proposed Project and its environmental setting;	Sections 2.2, 2.3, 3.03, 3.04, 3.17, 3.19, 3.20, 3.21, 3.22, 3.23, 3.24, 3.25, 3.26, 3.27 and 3.28	Section 2.2 provides a brief description of the Project, Sections 2.3 and 3.03 provide locational information, while Sections 3.04, 3.17, 3.19, 3.20, 3.21, 3.22, 3.23, 3.24, 3.25, 3.26, 3.27 and 3.28 provide a brief description of its environmental setting.
NYCRR § 1000.5 (l)(2)(ii)	Potentially significant adverse environmental and health impacts resulting from the construction and operation of the proposed Project including also an identification of particular aspects of the environmental setting that may be affected, including any material impacts or effects identified in consultations by the public, affected agencies, and other stakeholders, and a responsive analysis by the Applicant as to those issues identified in consultations;	Sections 2.2, 3.10, 3.15, 3.17, 3.19, 3.12, 3.20, 3.21, 3.22, 3.23, 3.24, 3.25, 3.26, and 3.29	Sections 2.2 and 3.10 provide general information regarding Project benefits; Sections 3.15, 3.17 and 3.19 provide information regarding potential health impacts, and Sections 3.12, 3.20, 3.21, 3.22, 3.23, 3.24, 3.25, 3.26, and 3.29 provide information concerning potential adverse environmental impacts.  As of the date of the filing of this PSS, no material impacts have been identified during any consultations.



16 NYCRR Section	Article 10 PSS Requirement	Corresponding Section of the Trelina Solar Energy Center PSS	Notes
NYCRR § 1000.5 (l)(2)(iii)	The extent and quality of information needed for the Application to adequately address and evaluate each potentially significant adverse environmental and health impact, including existing and new information where required, and the methodologies and procedures for obtaining the new information;	Section 3.0	Each subsection of 3.0 presents the extent and quality of information anticipated for presentation in the corresponding Exhibit of the Article 10 Application.
NYCRR § 1000.5 (l)(2)(iv)	For proposed solar-powered facilities, proposed or on-going studies during pre-construction activities and a proposed period of post-construction operations monitoring for potential impacts to avian and bat species;	Section 3.22	Section 3.22 presents information on existing conditions and on-going pre-construction avian studies, as well as proposed post-construction monitoring plan.

16 NYCRR Section	Article 10 PSS Requirement	Corresponding Section of the Trelina Solar Energy Center PSS	Notes
NYCRR § 1000.5 (l)(2)(v)	A description of how the applicant proposes to avoid adverse impacts to the environment and health;	Sections 3.04, 3.09, 3.12, 3.15, 3.17, 3.18, 3.19, 3.20, 3.21, 3.22, 3.23, 3.24, 3.26, 3.27, and 3.29	Sections 3.04 and 3.09 provide information on impact avoidance and its role in siting of Project facilities. Sections 3.12, 3.15, 3.17, 3.18, 3.19, 3.20, 3.21, 3.22, 3.23, 3.24, 3.26, 3.27, and 3.29 describe avoidance and minimization measures to the environment and health.
NYCRR § 1000.5 (l)(2)(vi)	For those adverse environmental and health impacts that cannot be reasonably avoided, an identification of measures proposed to mitigate such impacts;	Sections 3.04, 3.09, 3.12, 3.15, 3.17, 3.18, 3.19, 3.20, 3.21, 3.22, 3.23, 3.24, 3.26, 3.27, and 3.29	Sections 3.04 and 3.09 provide information on impact avoidance and its role in siting of Project facilities. Sections 3.12, 3.15, 3.17, 3.18, 3.19, 3.20, 3.21, 3.22, 3.23, 3.24, 3.26, 3.27, and 3.29 describe avoidance and mitigation measures to the environment and health.

16 NYCRR Section	Article 10 PSS Requirement	Corresponding Section of the Trelina Solar Energy Center PSS	Notes
NYCRR § 1000.5 (l)(2)(vii)	Where it is proposed to use petroleum or other back-up fuel for generating electricity, a discussion and/or study of the sufficiency of the proposed on-Site fuel storage capacity and supply;	Currently not applicable to this Project	
NYCRR § 1000.5 (l)(2)(viii)	A description and evaluation of reasonable and available alternative locations identified for the proposed Project, including a description of the comparative advantages and disadvantages of the proposed and alternative locations, except that a private Project applicant may limit its description and evaluation of alternative locations to parcels owned by, or under option to, such private Project applicant or its affiliates;	Section 3.09	Section 3.09 provides information on potential alternative location sites for the proposed Project, as well as an evaluation of comparative advantages and disadvantages of the proposed and alternative Project locations.

16 NYCRR Section	Article 10 PSS Requirement	Corresponding Section of the Trelina Solar Energy Center PSS	Notes
NYCRR § 1000.5 (l)(2)(ix)	If the proposed Project affects any land or water use or natural resource of the coastal area and federal authorization or funding is necessary, a preliminary analysis of the consistency of the proposed Project with the enforceable policies of the New York State coastal management program or, where the action is in an approved local waterfront revitalization program area, with the local program;	Not applicable to this Project	

16 NYCRR Section	Article 10 PSS Requirement	Corresponding Section of the Trelina Solar Energy Center PSS	Notes
NYCRR § 1000.5 (l)(2)(x)	A statement of the reasons why the primary proposed location and source, taking into account the potentially significant and adverse environmental impacts, is best suited, among the alternatives, including a "no action" alternative, to promote public health and welfare, including the recreational and other concurrent uses that the site may serve, except that a private Project applicant may limit its description and evaluation of alternative locations to parcels owned by, or under option to, such private Project applicant or its affiliates and its description and evaluation of alternative sources to those that are reasonable alternatives to the proposed Project that are feasible considering the objectives and capabilities of the sponsor;	Section 3.09 (d)	Section 3.09 (d) provides a statement of the reasons why the primary proposed location is best suited to promote public health and welfare, including the recreational, cultural, and other concurrent uses that the site and affected areas may serve.

16 NYCRR Section	Article 10 PSS Requirement	Corresponding Section of the Trelina Solar Energy Center PSS	Notes
NYCRR § 1000.5 (l)(2)(xi)	A preliminary identification of the demographic, economic and physical attributes of the community in which the Project is proposed to be located and in which any alternative location identified is located, and a preliminary environmental justice evaluation of significant and adverse disproportionate environmental impacts of the proposed Project and any alternative Project identified that would result from construction and operation considering, among other things, the cumulative impact of existing sources of emissions of air pollutants and the projected emission of air pollutants from the proposed or alternative Project in a manner that is in accordance with any requirements for the contents of an Article 10 preliminary scoping statement contained in 6 NYCRR Part 487 promulgated by the NYSDEC for the analysis of environmental justice issues; and	Sections 3.17, 3.27 and 3.28	<p>Section 3.17 provides a comparison of air pollution before and after development of the Proposed Project.</p> <p>Section 3.27 addresses socioeconomic considerations including potential effects of the proposed Project in relation to current demographics.</p> <p>Section 3.28 addresses the requirements 6 NYCRR Part 487 as it may apply to any identified Environmental Justice Areas.</p>

16 NYCRR Section	Article 10 PSS Requirement	Corresponding Section of the Trelina Solar Energy Center PSS	Notes
NYCRR § 1000.5 (l)(2)(xii)	An identification of any other material issues raised by the public and affected agencies during any consultation and the response of the applicant to those issues.	Appendix A	As of the date of filing this PSS, no material issues have been raised by the public or affected agencies during consultations that are not addressed by the proposed studies. However, Appendix A of the PSS includes the most recently filed Meeting Log, which outlines all consultation activities conducted by the Applicant since filing the PIP Plan.
NYCRR § 1000.5 (l)(3)	An identification of all other state and federal permits, certifications, or other authorizations needed for construction, operation or maintenance of the proposed Project;	Sections 3.32 and 3.33	Section 3.32 addresses state laws and regulations. Section 3.33 addresses anticipated state and federal permits and approvals.
NYCRR § 1000.5 (l)(4)	A list and description of all state laws and regulations issued thereunder applicable to the construction, operation or maintenance of the proposed Project and a preliminary statement demonstrating an ability to comply;	Section 3.32	Section 3.32 addresses state laws and regulations.

16 NYCRR Section	Article 10 PSS Requirement	Corresponding Section of the Trelina Solar Energy Center PSS	Notes
NYCRR § 1000.5(l)(5)	A list and description of all local laws, and regulations issued thereunder, applicable to the construction, operation, or maintenance of the proposed Project and a statement either providing a preliminary assessment of an ability to comply or indicating specific provisions that the applicant will be requesting the Board to elect not to apply, in whole or in part, and a preliminary explanation as to why the Board should elect not to apply the specific provisions as unreasonably burdensome in view of the existing technology or the needs of or costs to ratepayers whether located inside or outside of such municipality;	Section 3.31	Section 3.31 addresses local laws and ordinances.
NYCRR § 1000.5(l)(6)	A description of the applicant, its formation, status, structure, holdings, affiliate relationships, powers (including whether it has or will seek to obtain the power of eminent domain, either directly or indirectly), franchises and consents;	Sections 2.1 and 3.01	Sections 2.1 and 3.01 provide information on the Applicant, its parent company, and its formation. The Applicant does not plan to seek to obtain the power of eminent domain.



16 NYCRR Section	Article 10 PSS Requirement	Corresponding Section of the Trelina Solar Energy Center PSS	Notes
NYCRR § 1000.5 (l)(7)	A description of the applicant's property rights and interests or those it proposes to acquire to all lands of the proposed Project and any private or public lands or private or public streets, highways or rights-of-way crossed by any interconnections necessary to serve the Project such as, but not limited to, electric lines, gas lines, water supply lines, waste water or other sewage treatment facilities, communications and relay facilities, access roads, rail facilities, or steam lines; and	Section 3.13	Section 3.13 provides information concerning the Applicant's property rights and interests.
NYCRR § 1000.5 (l)(8)	Any other information that the Applicant may deem to be relevant.	Throughout the PSS document	The document contains additional information beyond the base requirements of 16 NYCRR § 1000.5 Any other information deemed relevant by the Applicant has been included in the PSS.



## 5.0 References

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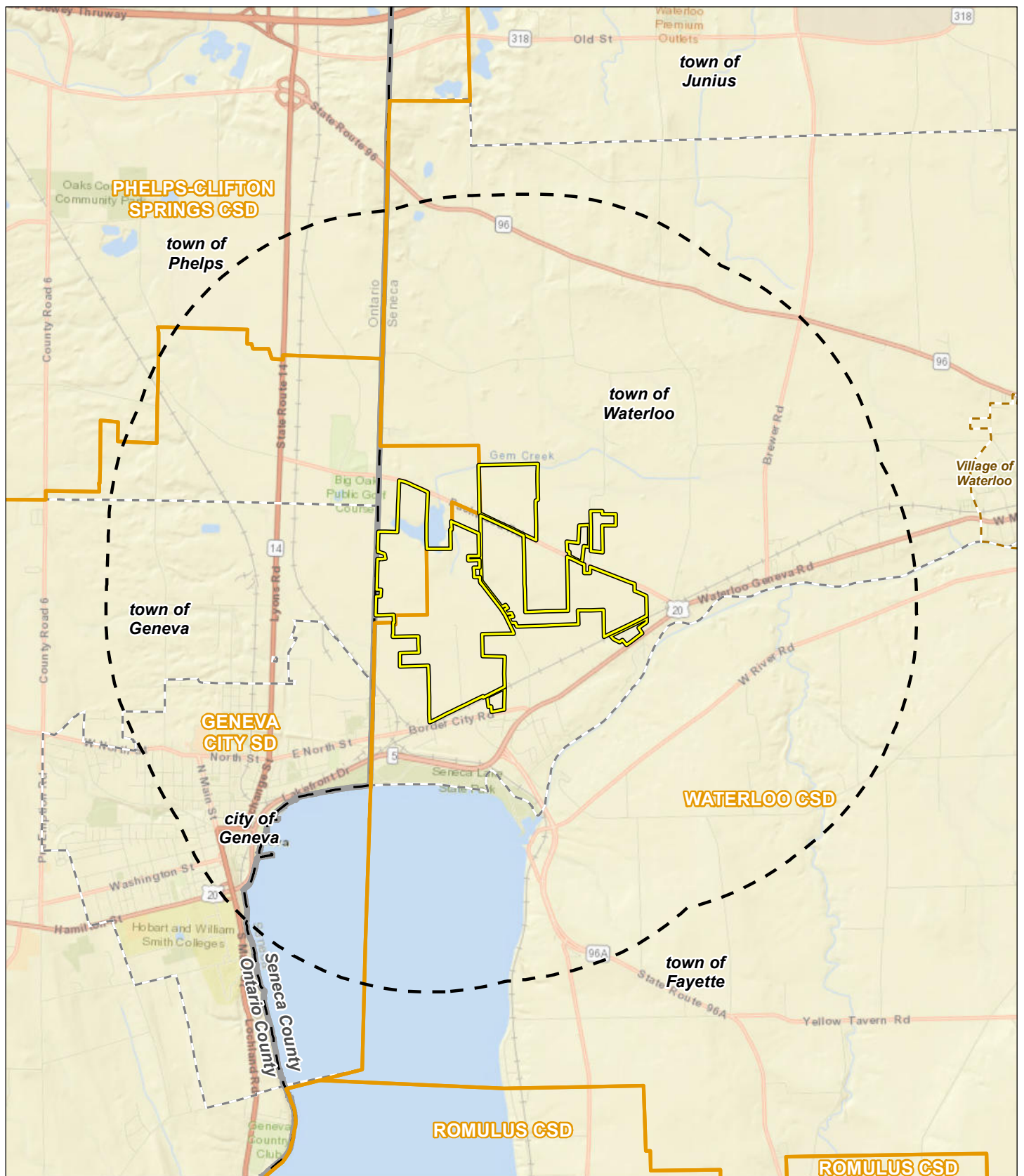
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- Project Area
- 2-Mile Study Area
- School Districts
- Village Boundary
- Municipal Boundary
- County Boundary

Data: NYS Education Department/NYS GIS  
Program Office, 2016  
Base Map: Esri and its contributors; USGS, 2018

0 1  
Mile

#### MAP LOCATION



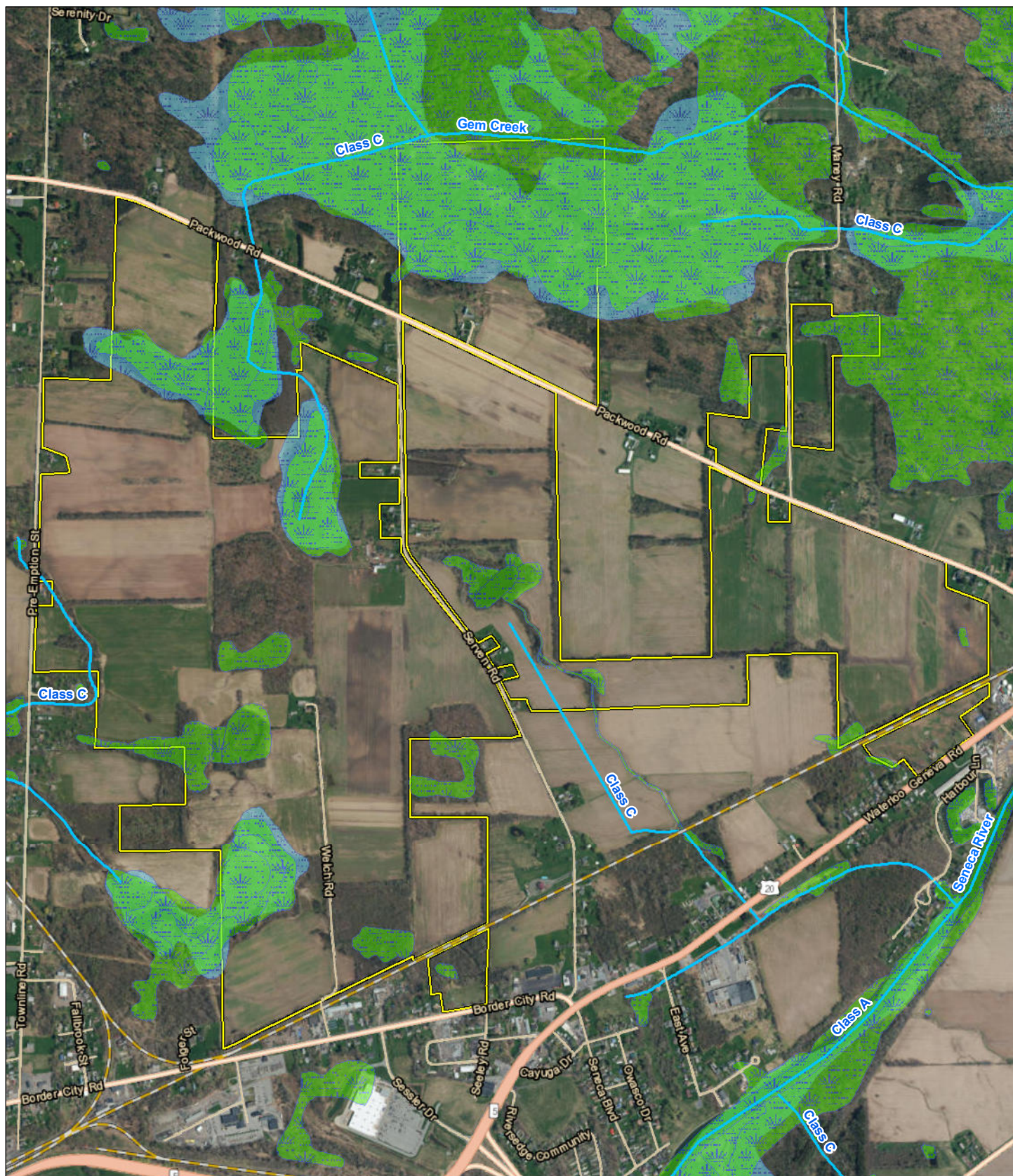
**TAX ASSESSMENT JURISDICTION  
IN THE STUDY AREA**  
**TRELINA  
SOLAR ENERGY CENTER, LLC  
TOWN OF WATERLOO, NY**

FIGURE 13

OCTOBER 2019

Map Produced by **TRC**





- Project Area
- NYSDEC Wetland
- NWI Wetland
- NYSDEC Classified Stream

Data: NYSDEC, USFWS NWI  
 Base Map: NYS Office of Information Technology Services,  
 GIS Program Office, 2018; Esri and its contributors

0 750 1,500  
 Feet

#### MAP LOCATION

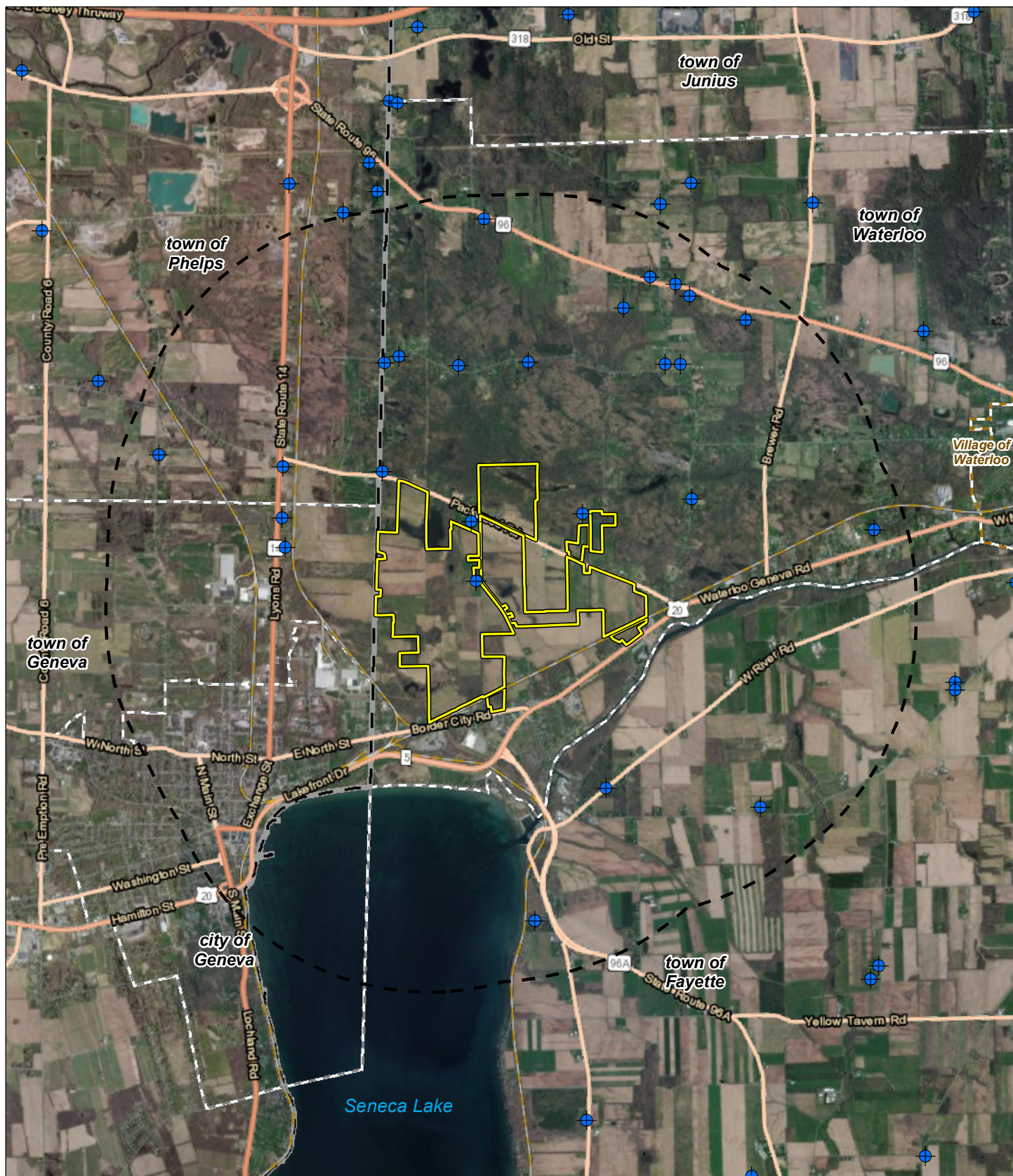


**MAPPED STREAMS AND WETLANDS  
 IN THE PROJECT AREA**  
**TRELINA  
 SOLAR ENERGY CENTER, LLC  
 TOWN OF WATERLOO, NY**

FIGURE 12 | OCTOBER 2019

Map Produced by **TRC**





- Project Area
- 2-Mile Study Area
- 5-Mile Visual Study Area
- Water Wells Based on NYSDEC Mapping
- Village Boundary
- Municipal Boundary

Data: NYSDEC, Bureau of Water Resource Mgmt, 2016  
 Base Map: NYS Office of Information Technology Services,  
 GIS Program Office, 2018

0 0.5 1  
 Miles

#### MAP LOCATION



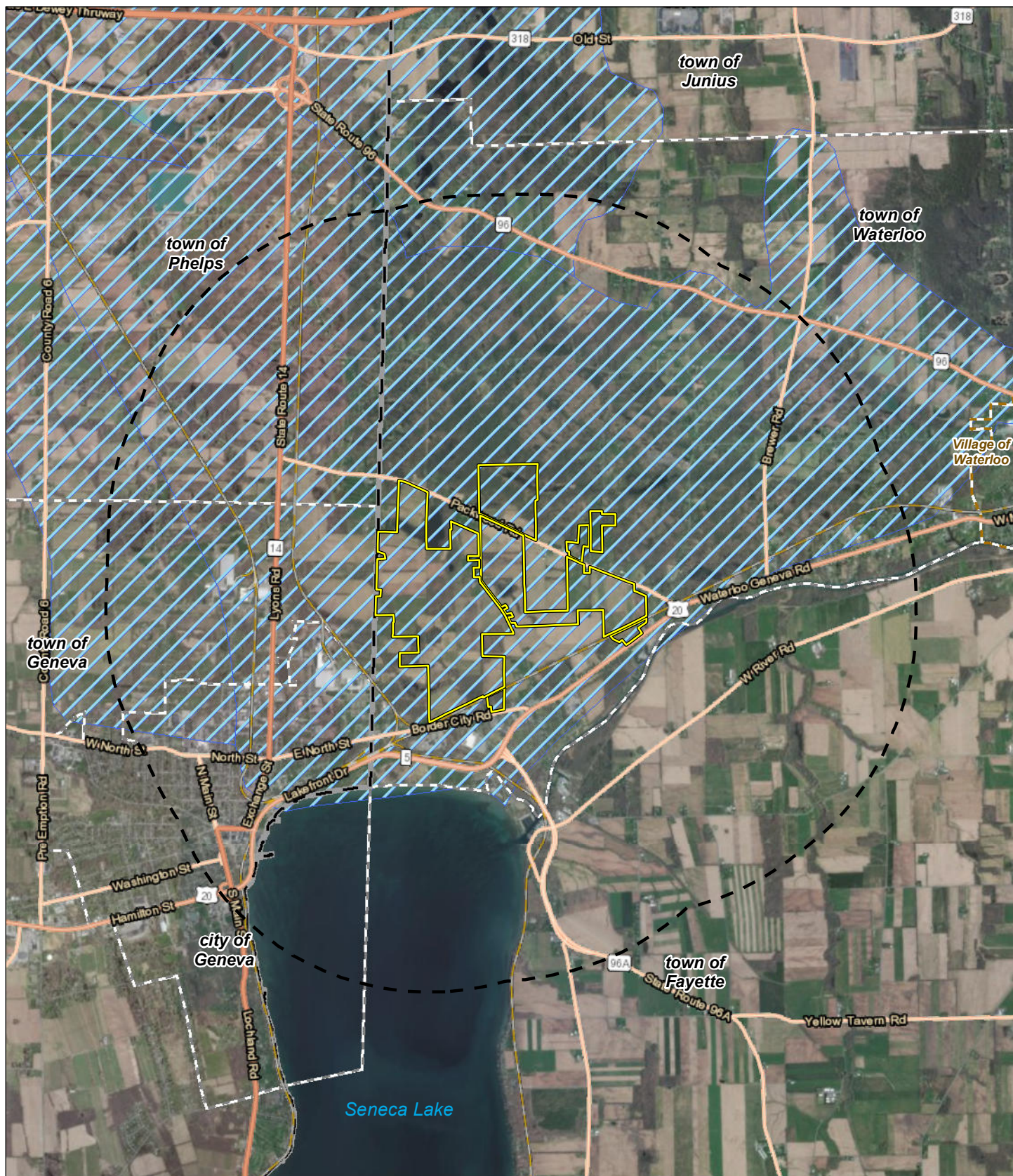
**MAPPED WATER WELLS  
 IN THE STUDY AREA**  
**TRELINA  
 SOLAR ENERGY CENTER, LLC  
 TOWN OF WATERLOO, NY**

FIGURE 11

OCTOBER 2019

Map Produced by **TRC**





- Project Area
- 2-Mile Study Area
- Groundwater Aquifers
- Village Boundary
- Municipal Boundary
- County Boundary

Data: NYSDEC  
 Base Map: NYS Office of Information Technology Services,  
 GIS Program Office, 2018

0 0.5 1  
 Miles

#### MAP LOCATION

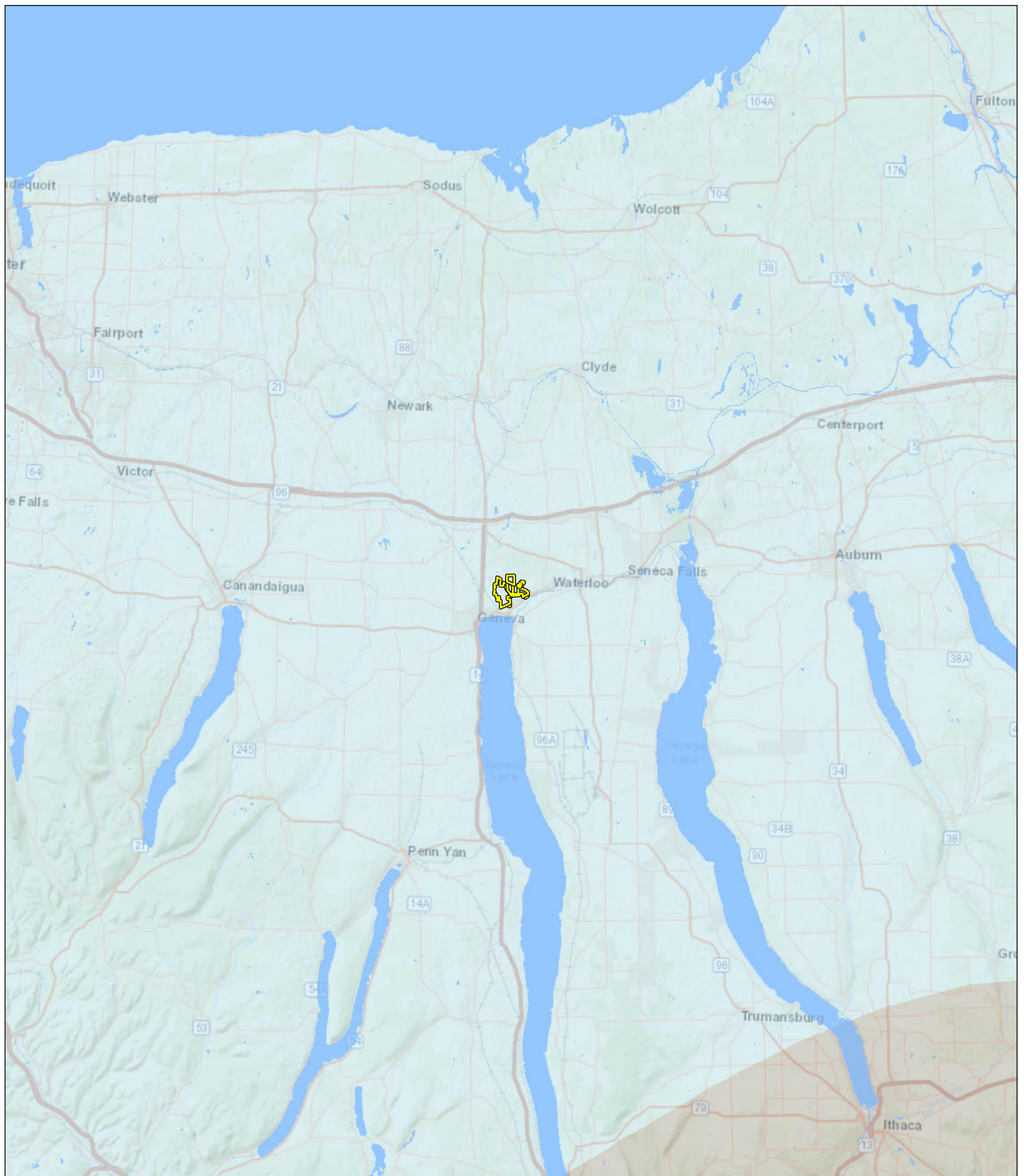



**GROUNDWATER AQUIFERS  
 IN THE STUDY AREA**  
**TRELINE**  
**SOLAR ENERGY CENTER, LLC**  
**TOWN OF WATERLOO, NY**

FIGURE 10 | OCTOBER 2019

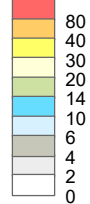
Map Produced by **TRC**





 Project Area

Peak acceleration, expressed as a percent of standard gravity (g)



0 2 4 6 8 Miles

Data: USGS, 2014  
Base Map: Esri and its contributors, USGS

#### MAP LOCATION



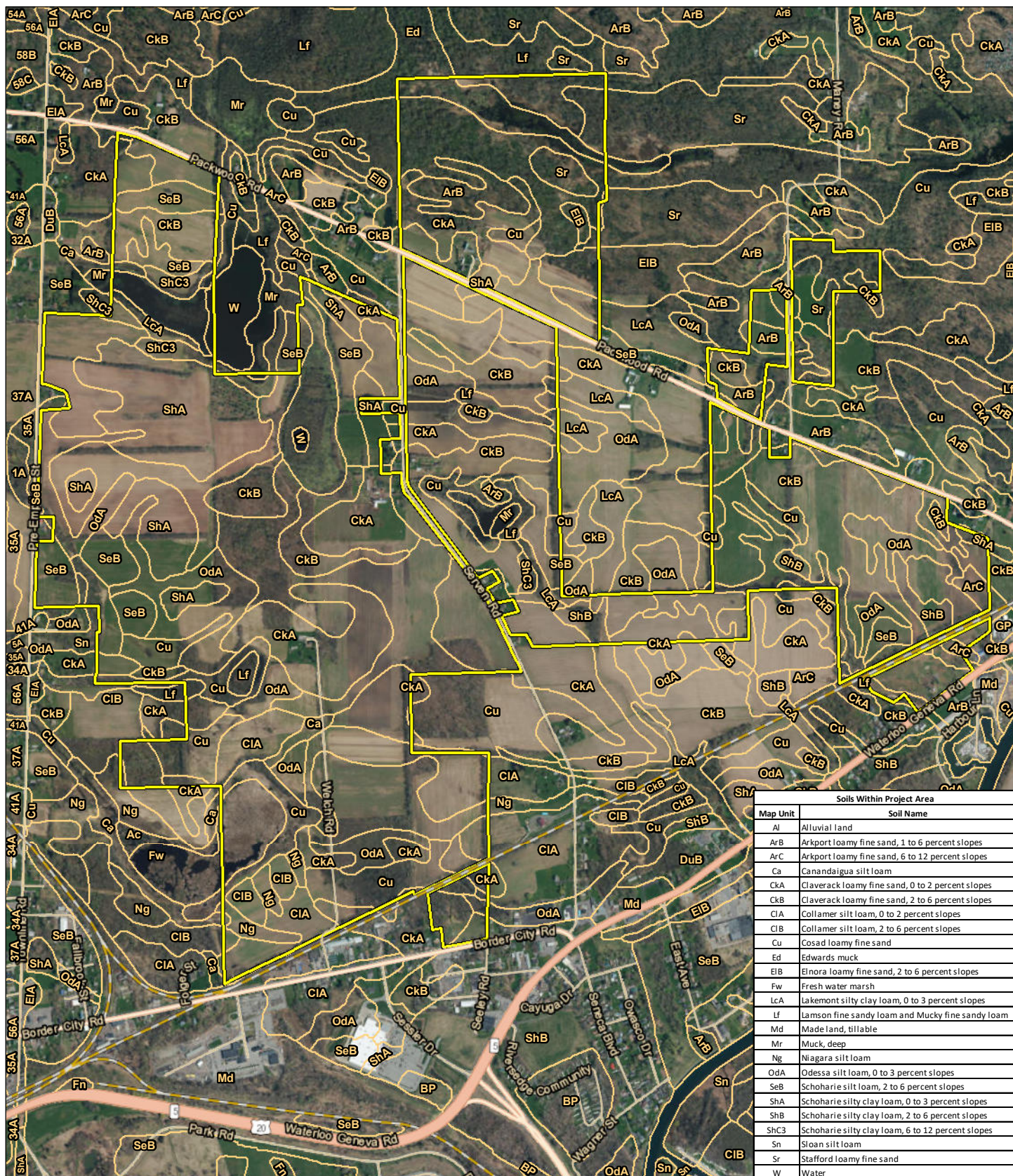
**SEISMIC HAZARD IN THE PROJECT AREA**  
2% PROBABILITY OF EXCEEDANCE IN 50 YEARS  
**TRELINA**  
**SOLAR ENERGY CENTER, LLC**  
TOWN OF WATERLOO, NY

FIGURE 9

OCTOBER 2019

Map Produced by 





Soils Within Project Area	
Map Unit	Soil Name
Al	Alluvial land
ArB	Arkport loamy fine sand, 1 to 6 percent slopes
ArC	Arkport loamy fine sand, 6 to 12 percent slopes
Ca	Canandaigua silt loam
CkA	Claverack loamy fine sand, 0 to 2 percent slopes
CkB	Claverack loamy fine sand, 2 to 6 percent slopes
CIA	Collamer silt loam, 0 to 2 percent slopes
CIB	Collamer silt loam, 2 to 6 percent slopes
Cu	Cosad loamy fine sand
Ed	Edwards muck
EIB	Elmira loamy fine sand, 2 to 6 percent slopes
Fw	Fresh water marsh
LcA	Lakemont silty clay loam, 0 to 3 percent slopes
Lf	Lamson fine sandy loam and Mucky fine sandy loam
Md	Made land, tillable
Mr	Muck, deep
Ng	Niagara silt loam
OdA	Odessa silt loam, 0 to 3 percent slopes
SeB	Schoharie silt loam, 2 to 6 percent slopes
ShA	Schoharie silty clay loam, 0 to 3 percent slopes
ShB	Schoharie silty clay loam, 2 to 6 percent slopes
ShC3	Schoharie silty clay loam, 6 to 12 percent slopes
Sn	Sloan silt loam
Sr	Stafford loamy fine sand
W	Water

- Project Area
- Mapped Soils

#### MAP LOCATION



Data: USDA NRCS, 2019  
Base Map: NYS Office of Information Technology Services,  
GIS Program Office, 2017; Esri and its contributors

0 750 1,500  
Feet

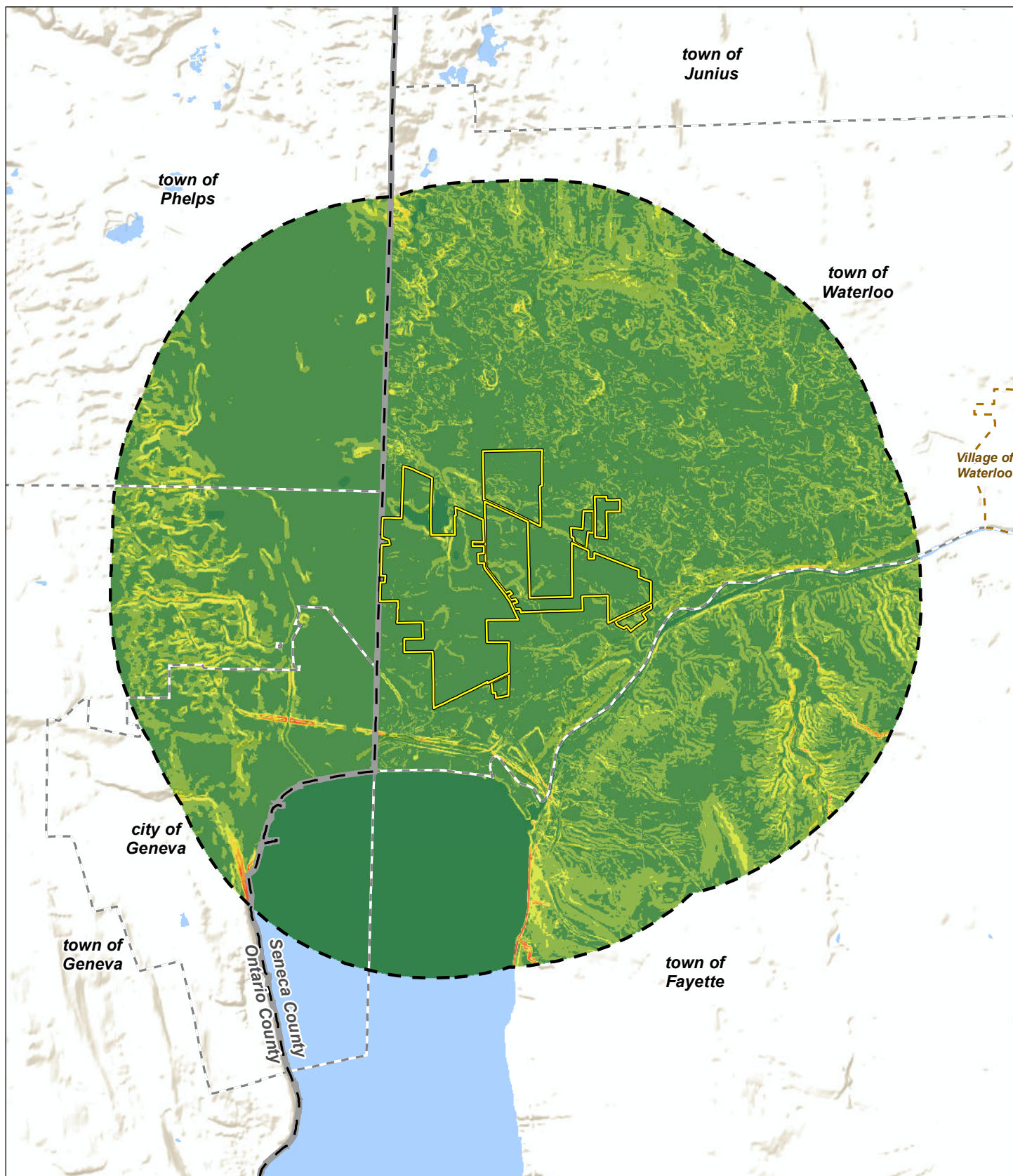


### MAPPED SOILS IN THE PROJECT AREA TRELINA SOLAR ENERGY CENTER, LLC TOWN OF WATERLOO, NY

FIGURE 8 | OCTOBER 2019

Map Produced by TRC





- Project Area
- 2-Mile Study Area
- Village Boundary
- Municipal Boundary
- County Boundary

- Slope**
- 0 - 3%
  - 3 - 8%
  - 8 - 15%
  - 15 - 25%
  - 25 - 35%
  - >35%

Data: USGS, 2018/2019  
Base Map: Esri, USGS, NOAA

0 0.5 1  
Mile

#### MAP LOCATION



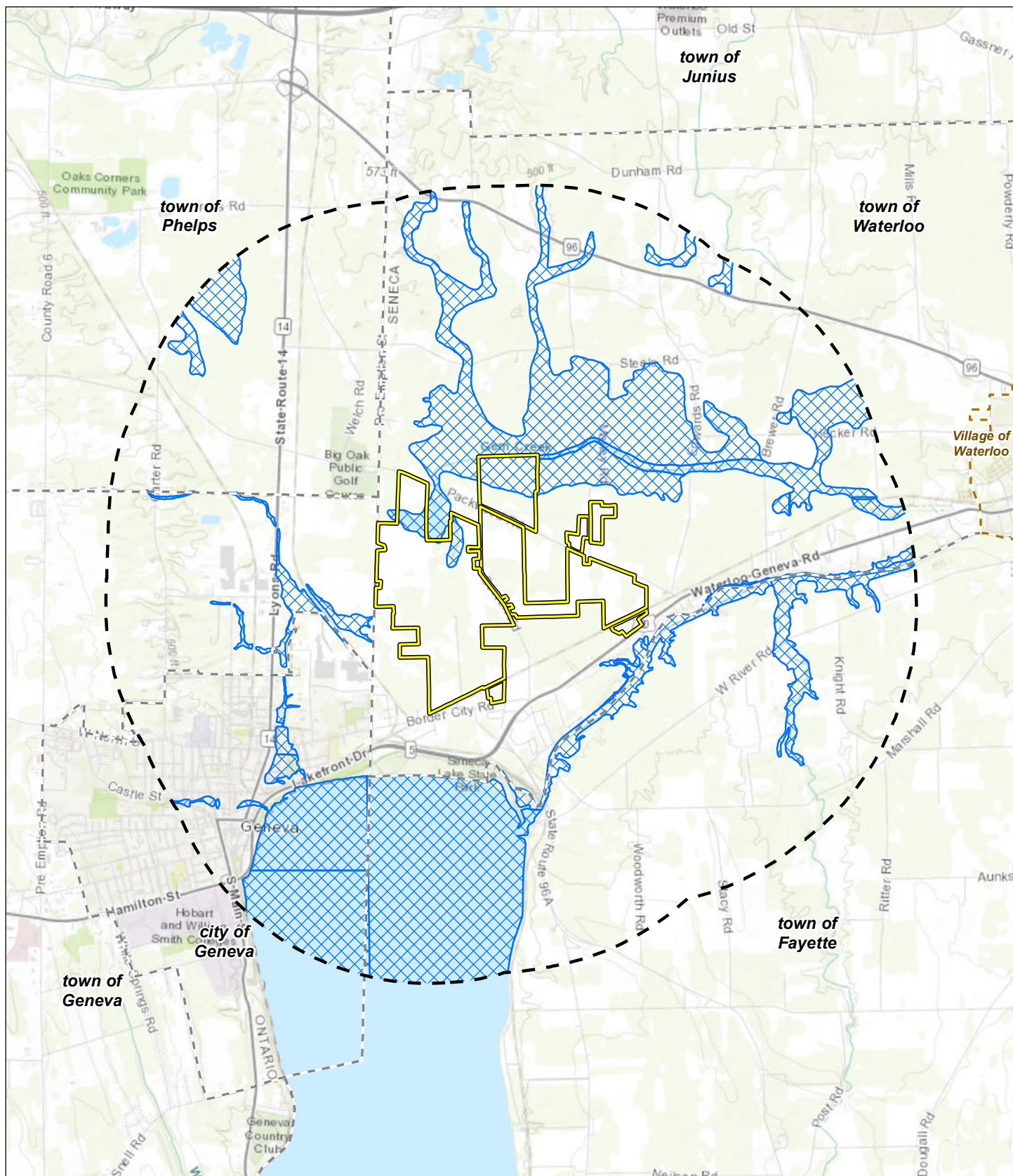
#### SLOPES IN THE STUDY AREA TRELLINA SOLAR ENERGY CENTER, LLC TOWN OF WATERLOO, NY

FIGURE 7

OCTOBER 2019

Map Produced by TRC





- Project Area
- 2-Mile Study Area
- Special Flood Hazard Area (Approximate)
- Village Boundary
- Municipal Boundary

Data: FEMA, 2014, 2018  
 Base Map: NYS Office of Information Technology Services,  
 GIS Program Office, 2018

0 0.5 1  
 Miles

#### MAP LOCATION

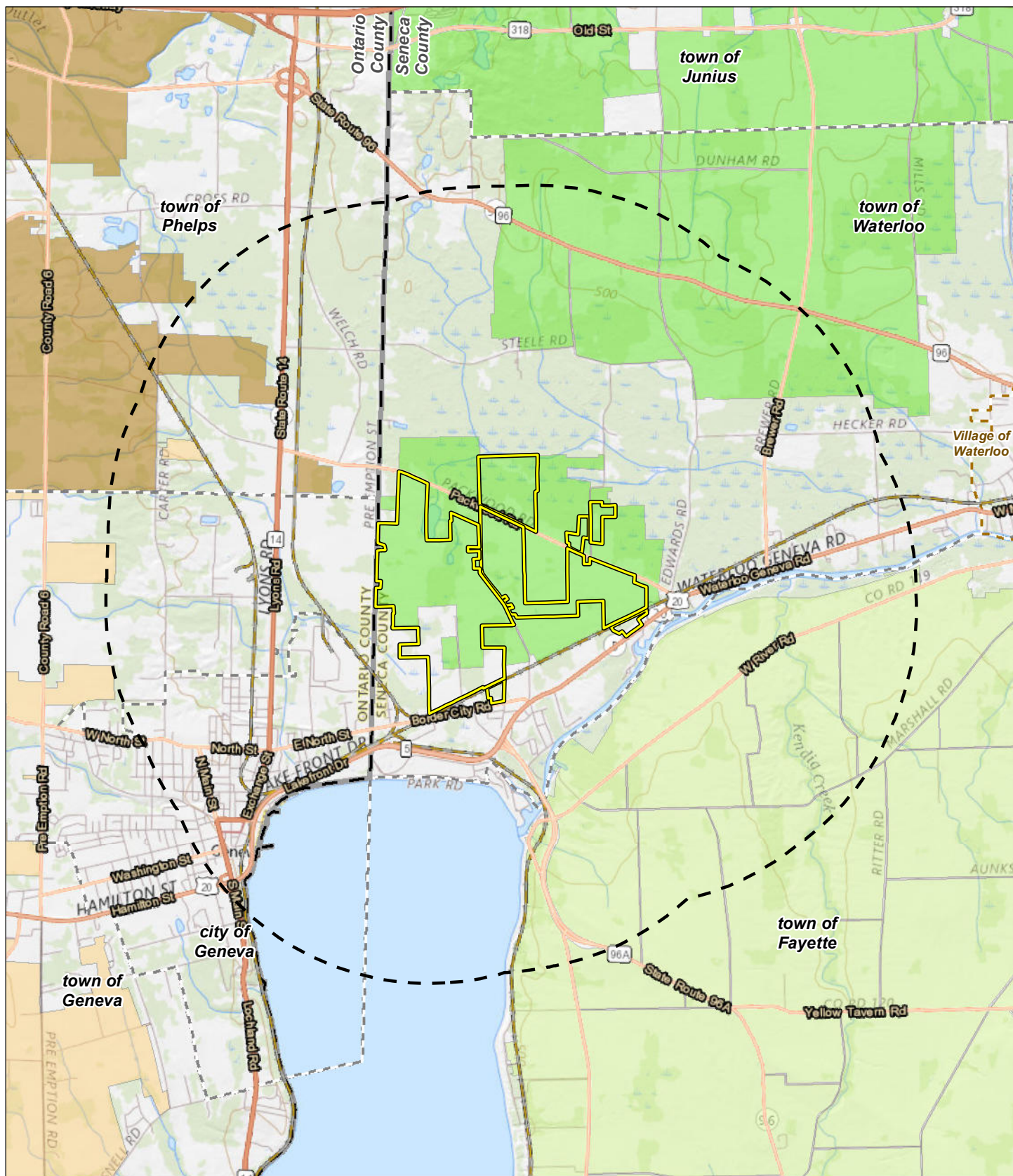


**FEMA FLOOD ZONES  
 IN THE STUDY AREA**  
**TRELINA  
 SOLAR ENERGY CENTER, LLC  
 TOWN OF WATERLOO, NY**

FIGURE 6 | OCTOBER 2019

Map Produced by **TRC**





- |                    |                                       |
|--------------------|---------------------------------------|
| Project Area       | <b>County - Agricultural District</b> |
| 2-Mile Study Area  | Seneca County - District 6            |
| Village Boundary   | Seneca County - District 8            |
| Municipal Boundary | Ontario County - District 6           |
| County Boundary    | Ontario County - District 8           |

Data: Cornell Institute for Resource Information Sciences  
utilizing NYSDAM data, Seneca, 2010; Ontario, 2017  
Base Map: USGS National Map, 2019

0 0.5 1  
Mile

#### MAP LOCATION

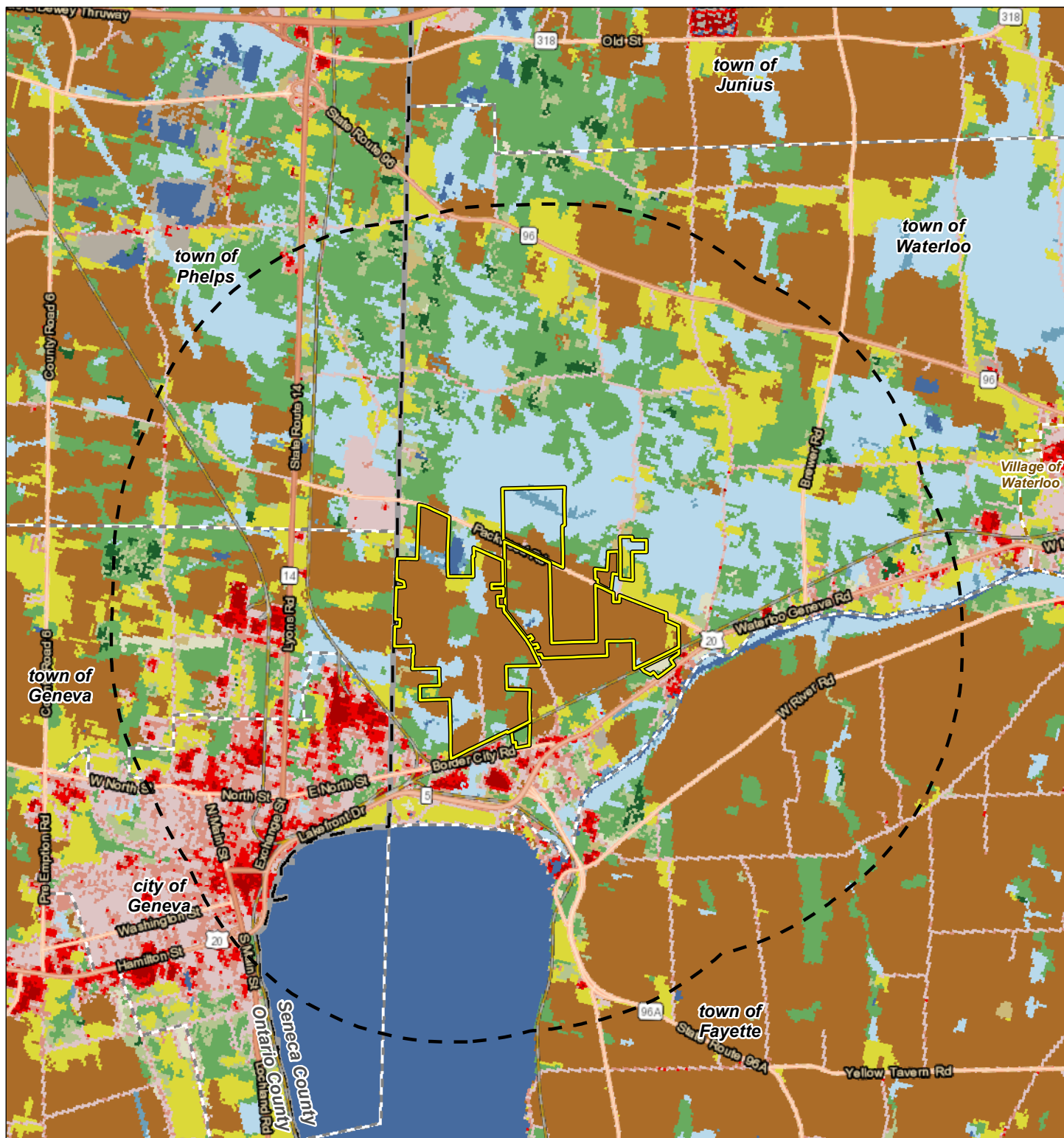


**AGRICULTURAL DISTRICTS  
IN THE STUDY AREA**  
**TRELINA  
SOLAR ENERGY CENTER, LLC  
TOWN OF WATERLOO, NY**

FIGURE 5

OCTOBER 2019

Map Produced by TRC



Land Cover		
Open Water	Developed, Medium Intensity	Evergreen Forest
Developed, Open Space	Developed High Intensity	Mixed Forest
Developed, Low Intensity	Barren Land (Rock/Sand/Clay)	Pasture/Hay
	Deciduous Forest	Cultivated Crops
		Woody Wetlands
		Emergent Herbaceous Wetlands
		Shrub/Scrub
		Grassland/Herbaceous

- Project Area
- 2-Mile Study Area
- Village Boundary
- Municipal Boundary
- County Boundary

#### MAP LOCATION



**EXISTING VEGETATED COVER  
IN THE STUDY AREA**  
**TRELLINA  
SOLAR ENERGY CENTER, LLC  
TOWN OF WATERLOO, NY**

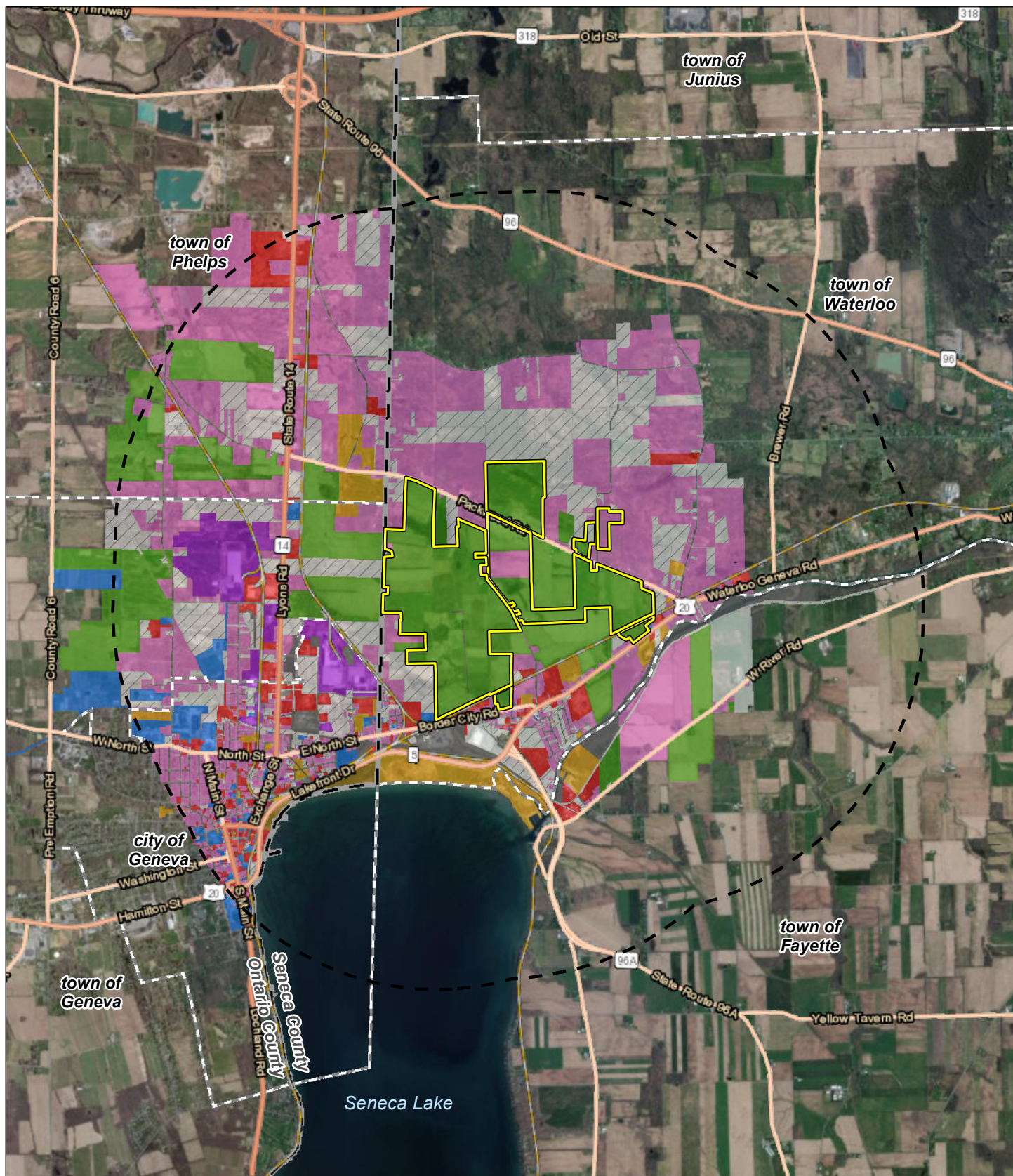
FIGURE 4 | OCTOBER 2019

Map Produced by TRC

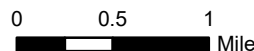
Data: National Land Cover Dataset, 2016

0 0.5 1  
Mile





Data: Ontario County, 2018; Seneca County GIS, 2018;  
 New York State Office of Real Property, 2017  
 Base Map: NYS Office of Information Technology Services,  
 GIS Program Office, 2017; Esri and its contributors

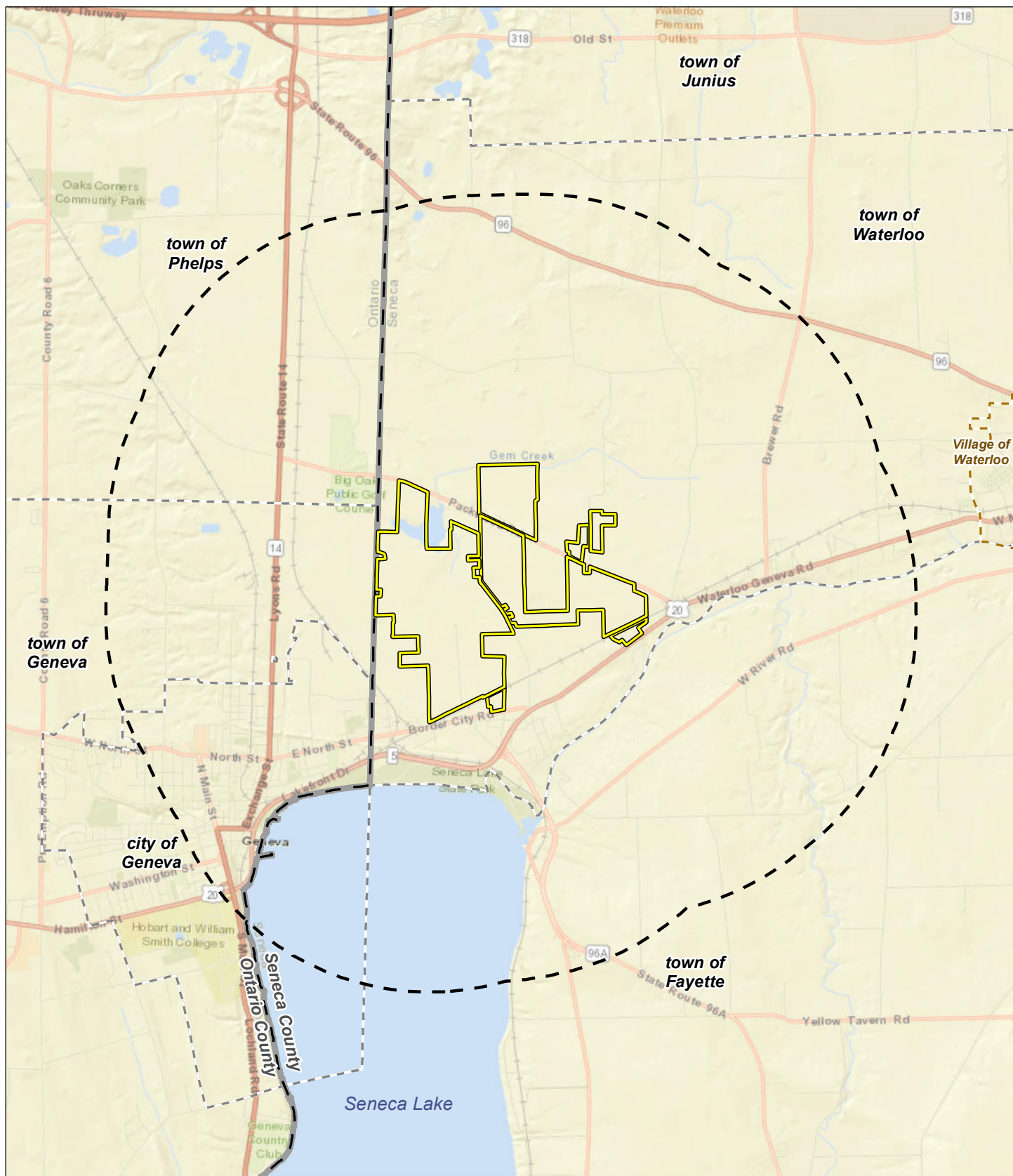


**MAPPED EXISTING LAND USE  
 IN THE STUDY AREA  
 TRELINA  
 SOLAR ENERGY CENTER, LLC  
 TOWN OF WATERLOO, NY**

FIGURE 3 | OCTOBER 2019

Map Produced by TRC





- Project Area
- 2-Mile Study Area
- Village Boundary
- Municipal Boundary
- County Boundary

Data: NYS GIS Program Office, TRC  
Base Map: Esri and its contributors

0 0.5 1  
Mile

#### MAP LOCATION



#### PROJECT AREA AND STUDY AREA

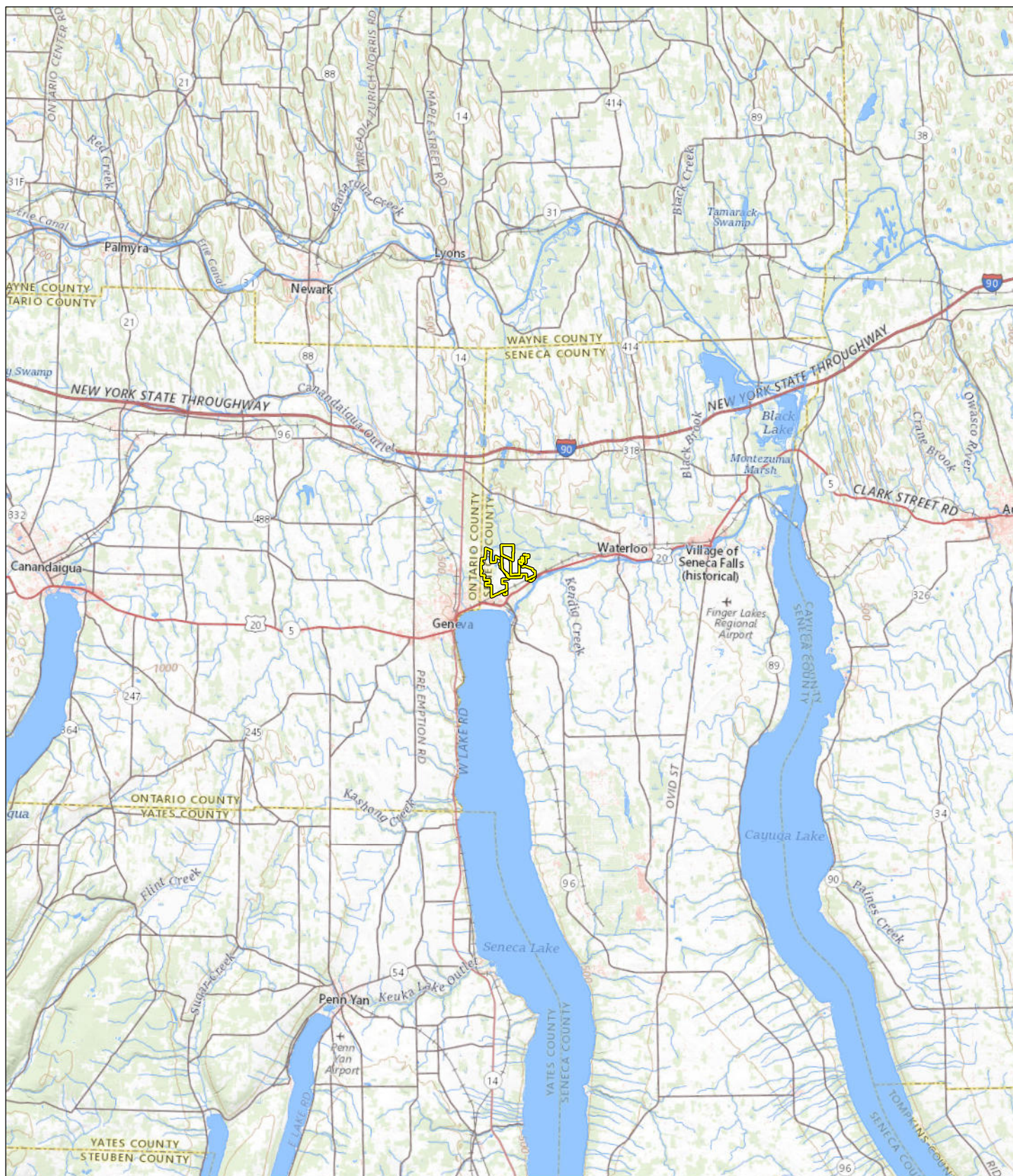
**TRELINA**  
**SOLAR ENERGY CENTER, LLC**  
**TOWN OF WATERLOO, NY**


FIGURE 2

OCTOBER 2019

Map Produced by **TRC**





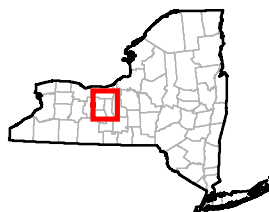
 Project Area



0 2.5 5  
Miles

Base Map: USGS National Map, 2019


#### MAP LOCATION



**REGIONAL PROJECT LOCATION**  
**TRELINA**  
**SOLAR ENERGY CENTER, LLC**  
**TOWN OF WATERLOO, NY**

FIGURE 1

OCTOBER 2019

Map Produced by 

## Trelina Solar Energy Center

### PIP Plan Meeting Log

Date	Location of Meeting/Method of Communication	Meeting Attendees/Communication Participants	Purpose of Meeting/Communication and Comments	Follow Up Action Items
8/13/2018	Phone	<u>Seneca County Chamber</u> Jeff Shipley, President & CEO  <u>NextEra Team</u> Keddy Chandran (NextEra)	Introduce NextEra Energy Resources (NextEra); discuss solar development	N/A
8/13/2018	Phone	<u>Town of Waterloo</u> Don Trout, Town Supervisor  <u>NextEra Team</u> Keddy Chandran (NextEra)	Left voicemail to introduce NextEra Energy Resources (NextEra); discuss solar development	N/A
2/13/2019	Town of Waterloo	<u>Town of Waterloo</u> Don Trout, Town Supervisor  <u>Seneca County IDA</u> Bob Aronson, Executive Director  <u>NextEra Team</u> Keddy Chandran (NextEra) Bill Boer (NextEra) Mike Nozzolio (Harris Beach)	Introduce NextEra Energy Resources (NextEra); discuss solar development	N/A
3/25/2019	Town of Waterloo	<u>Town of Waterloo</u> Town Board Meeting	Attend Town Board meeting during which new solar law was enacted	N/A



Date	Location of Meeting/Method of Communication	Meeting Attendees/Communication Participants	Purpose of Meeting/Communication and Comments	Follow Up Action Items
		<u>NextEra Energy</u> Mike Nozzolio (Harris Beach)		
4/18/2019	DPS Offices	<u>DPS</u> James Austin Brian Ossias Andrew Davis Leka Gjonaj  <u>NextEra Team</u> Keddy Chandran (NextEra) Bill Flynn (Harris Beach) Michelle Piasecki (Harris Beach)	Discussed and introduced project	N/A
5/10/2019	Phone Call	<u>NYSERDA</u> Doreen Harris  <u>NextEra Team</u> Bill Flynn (Harris Beach)	Provided update on planned submission of PIP Plan	N/A
5/10/2019	Phone Call	<u>DPS</u> James Austin  <u>NYSERDA</u> Doreen Harris  <u>NextEra</u> Bill Flynn (Harris Beach PLLC), Counsel to NextEra	Provided update on planned submission of PIP Plan	N/A

Date	Location of Meeting/Method of Communication	Meeting Attendees/Communication Participants	Purpose of Meeting/Communication and Comments	Follow Up Action Items
5/30/2019	Seneca County Office Building	<u>Town of Waterloo</u> Don Trout, Town Supervisor  <u>Seneca County IDA</u> Bob Aronson, Executive Director  <u>NextEra Team</u> Keddy Chandran David Boxold Mike Nozzolio (Harris Beach)	Introduce NextEra Energy Resources (NextEra); discuss solar development	Present at a regularly scheduled Waterloo Town Board meeting (TBD)
6/12/2019	Town of Waterloo	<u>Town of Waterloo</u> Don Trout, Town Supervisor Jim Cleere, Town Assessor/Code/Zoning  <u>NextEra Team</u> David Boxold (NextEra)	Discuss IDA questions (project boundary and Opportunity Zone) as well as potential property tax implications	Property tax question
6/15/2019	Phone Call	<u>Town of Waterloo</u> Jim Cleere, Town Assessor/Code/Zoning  <u>NextEra Team</u> David Boxold (NextEra)	Left message regarding property taxes	N/A
6/20/2019	Village of Waterloo	<u>Seneca County Chamber</u> Jeff Shipley, President & CEO  <u>Seneca Board</u>	Introduce NextEra Energy Resources (NextEra); discuss solar development	Present at Seneca County Chamber of Commerce (TBD)

Date	Location of Meeting/Method of Communication	Meeting Attendees/Communication Participants	Purpose of Meeting/Communication and Comments	Follow Up Action Items
		Robert Shipley, Board of Supervisors Chairman  <u>NextEra Team</u> David Boxold (NextEra) Mike Nozzolio (Harris Beach)		
6/20/2019	Village of Waterloo	<u>Village of Waterloo</u> Jack O'Connor, Mayor Don Northrup, Village Administrator  <u>NextEra Team</u> David Boxold (NextEra) Mike Nozzolio (Harris Beach)	Introduce NextEra Energy Resources (NextEra); discuss solar development	N/A
6/21/2019	Town of Waterloo	<u>Town of Waterloo</u> Don Trout, Town Supervisor  <u>NextEra Team</u> David Boxold (NextEra)	Discuss IDA questions (project boundary and Opportunity Zone)	N/A
7/02/2019	USPS	<u>Town of Waterloo</u> Jim Cleere, Town Assessor/Code/Zoning  <u>NextEra Team</u> David Boxold (NextEra)	Inform Town of Waterloo of proposed location for temporary meteorological station	N/A
7/11/2019	Phone Call	<u>Seneca County Chamber</u> Jeff Shipley, President & CEO	Discuss membership with the Chamber of Commerce	N/A

Date	Location of Meeting/Method of Communication	Meeting Attendees/Communication Participants	Purpose of Meeting/Communication and Comments	Follow Up Action Items
		Mackenzie Green, Membership Development Manager  <u>NextEra Team</u> David Boxold (NextEra)		
7/12 to 7/22/2019	Electronic correspondence	<u>Seneca County Chamber</u> Don Trout, Town Supervisor  <u>Seneca County Chamber</u> Jeff Shipley, President & CEO Mackenzie Green, Membership Development Manager  <u>Seneca County IDA</u> Bob Aronson, Executive Director  <u>Participating Landowners</u>  <u>Seneca County</u> Sam Priem, P.E., Commissioner of Public Works Margret Li, Seneca County Clerk  <u>NextEra Team</u> David Boxold (NextEra)	Inform community member of the active project website	N/A



Date	Location of Meeting/Method of Communication	Meeting Attendees/Communication Participants	Purpose of Meeting/Communication and Comments	Follow Up Action Items
7/17/2019	Seneca Falls	<u>Seneca County Chamber</u> Hosted Event (Annual Membership BBQ)  <u>NextEra Team</u> David Boxold (NextEra)	Attend Chamber Event	N/A
7/18/2019	Town of Waterloo	<u>Town of Waterloo</u> Sandra Ridley, Town Clerk  <u>NextEra Team</u> David Boxold (NextEra)	Informed Ms. Ridley of the active project website and the revision to the Project Improvement Plan, which now lists her as a host community contact	N/A
7/23/2019	Email	<u>Seneca County IDA</u> Bob Aronson, Executive Director  <u>NextEra Team</u> David Boxold (NextEra) Mike Nozzolio (Harris Beach)	Discuss project status	N/A
7/23/2019	Town of Waterloo	<u>Seneca County Board of Supervisors, Public Works Committee</u> Don Trout, Chair Cindy Garlick-Lorenzetti Paul Kronenwetter Ernest Brownell	Discuss project status and provide website address	N/A

Date	Location of Meeting/Method of Communication	Meeting Attendees/Communication Participants	Purpose of Meeting/Communication and Comments	Follow Up Action Items
		<u>Finger Lakes Times</u> David Shaw		
7/24/2019	Town of Waterloo	<u>Town of Waterloo</u> Jim Cleere, Town Assessor/Code/Zoning  <u>NextEra Team</u> David Boxold (NextEra)	Discuss project status and temporary met tower permitting requirements	Submit zoning permit paperwork
7/24/2019	Village of Waterloo	<u>Seneca County Chamber</u> Jeff Shipley, President & CEO  <u>NextEra Team</u> David Boxold (NextEra)	Discuss project status	N/A
7/29/2019	Phone Call	Town of Waterloo resident  <u>NextEra Team</u> David Boxold (NextEra)	Discuss project planned open house	N/A
7/30/2019	Town of Waterloo	<u>Seneca County IDA</u> Bob Aronson, Executive Director  <u>NextEra Team</u> David Boxold (NextEra)	Discuss project status	N/A
7/31/2019	Town of Waterloo	<u>Town of Waterloo</u> Don Trout, Town Supervisor Sandra Ridley, Town Clerk	Provide hardcopy final PIP and finalize town board meeting	N/A

Date	Location of Meeting/Method of Communication	Meeting Attendees/Communication Participants	Purpose of Meeting/Communication and Comments	Follow Up Action Items
		<u>NextEra Team</u> David Boxold (NextEra)		
7/31/2019	Town of Waterloo	<u>Border City Volunteer Fire Department</u> Assistant Chief  <u>NextEra Team</u> David Boxold (NextEra)	Introduce NextEra Energy Resources (NextEra); discuss solar development; discuss Open House	N/A
8/8/2019	Phone call and Email	<u>Village of Waterloo</u> Don Northrup, Village Administrator  <u>NextEra Team</u> David Boxold (NextEra)	Provide timing of Open House, Town Board meeting, and website address	N/A
8/8/2019	Seneca Falls	<u>M&amp;M Electrical Surplus</u> Darrell Van Nederynen  <u>NextEra Team</u> David Boxold (NextEra)	Project Update	N/A
8/14/2019	Electronic	<u>Border City Volunteer Fire Department</u> Assistant Chief  <u>NextEra Team</u> David Boxold (NextEra)	Discuss Open House	Payment arrangements

Date	Location of Meeting/Method of Communication	Meeting Attendees/Communication Participants	Purpose of Meeting/Communication and Comments	Follow Up Action Items
8/16/2019	Electronic	<u>Finger Lakes Railway</u> Veronica Fields  <u>NextEra Team</u> David Boxold (NextEra)	Introduce NextEra Energy Resources (NextEra); discuss solar development	Discussion of potential crossing agreements
8/20/2019	Electronic	<u>Town of Waterloo</u> Allison Messecar  <u>NextEra Team</u> John Ahearn (CanAcre)	Obtain zoning permit for met station	N/A
8/20/2019	Electronic and Phone Call	<u>Town of Waterloo</u> Jim Cleere  <u>Seneca County</u> Mike Shaw  <u>NextEra Team</u> David Boxold (NextEra)	Confirming building permit for met station is unnecessary for Seneca County	N/A
8/20/2019	Electronic	<u>Buckeye Partners</u> Chris Schied  <u>NextEra Team</u> David Boxold (NextEra)	Introduce NextEra Energy Resources (NextEra); discuss solar development	Discussion of easement and setback considerations
8/21/2019	Town of Waterloo	<u>Seneca Board</u> Robert Shipley, Board of Supervisors Chairman Mitch Rowe, County	Project Update	Community Benefits

Date	Location of Meeting/Method of Communication	Meeting Attendees/Communication Participants	Purpose of Meeting/Communication and Comments	Follow Up Action Items
		Administrator  <u>NextEra Team</u> David Boxold (NextEra)		
8/22/2019	Town of Waterloo	<u>Finger Lakes Railway</u> Veronica Fields  <u>NextEra Team</u> David Boxold (NextEra)	Project Update	Discussion of potential crossing agreements
8/22/2019	Electronic	<u>Border City Volunteer Fire Department</u> Assistant Chief  <u>NextEra Team</u> David Boxold (NextEra)	Discuss Open House timing	N/A
8/26/2019	Town of Waterloo	<u>Town of Waterloo</u> Don Trout, Town Supervisor Sandra Ridley, Town Clerk Michael Pfeiffer, Town Council Bob Rodger, Town Council Howard Strader, Town Council Tyrone Thomas, Town Council Jim Cleere, Town Assessor/Code/Zoning  <u>NextEra Team</u>	Town Meeting	N/A

Date	Location of Meeting/Method of Communication	Meeting Attendees/Communication Participants	Purpose of Meeting/Communication and Comments	Follow Up Action Items
		Bill Boer (NextEra) David Boxold (NextEra) Mike Nozzolio (Harris Beach) Michelle Piasecki (Harris Beach)		
8/27/2019	Town of Waterloo	<u>M&amp;M Electrical Surplus</u> Matt Shumay Darrell Van Nederynen  <u>NextEra Team</u> David Boxold (NextEra)	Project Update	N/A
Weeks of 8/30/19 and 9/3/19	Advertisements	Advertisements placed in area newspapers announcing open houses	Notification of Open House	N/A
9/4/2019	Electronic	<u>Cayuga Nation of New York</u> Sharon Leroy  <u>NextEra Team</u> David Boxold (NextEra) Bill Boer (NextEra) Agnes Ramsey (NextEra)	Project Introduction	N/A
9/11/2019	Phone call	<u>Cayuga Nation of New York</u> Sharon Leroy  <u>NextEra Team</u> Agnes Ramsey (NextEra)	Project Update	N/A

Date	Location of Meeting/Method of Communication	Meeting Attendees/Communication Participants	Purpose of Meeting/Communication and Comments	Follow Up Action Items
9/11/2019	USPS and email	Informational flyer announcing open houses sent to residents of Study Area	Notification of Open House	N/A
9/13/2019	Town of Waterloo	<u>Seneca County</u> Robert Shipley, Board of Supervisors Chairman Mitch Rowe, County Supervisor  <u>Town of Waterloo</u> Don Trout  <u>Seneca IDA</u> Bob Aronson  <u>NextEra Team</u> David Boxold (Next Era) Nick Morelle (Ostroff)	Project Update, intervenor funding guide, Article 10's Exhibit 31	Article 31 discussions
9/14/2019	USPS	Letters to potential adjacent landowners	Project introduction and invitation for in-person visit	Adjacent landowner requested in person meeting on 9/19 and held on 9/24
9/16/2019	DPS Office 3 Madison Avenue Albany, NY 12223	<u>NYS DPS</u> Andrea Cerbin Noreena Chaudari Andrew Davis	Pre-PSS meeting to introduce the project and answer any questions.	N/A

Date	Location of Meeting/Method of Communication	Meeting Attendees/Communication Participants	Purpose of Meeting/Communication and Comments	Follow Up Action Items
		Jonathan Foward Cassandra Partyka David Solimeno Michael Tusha  <u>NYS DEC</u> Larry Weintraub Kristy Primeau Karen Gaidasz Mary Anne Bonilla  <u>Dept. of Ag and Markets</u> Jason Mulford Mike Saviola Tara Wells  <u>NextEra Team</u> Bill Boer (NextEra) David Boxold (NextEra) Keddy Chandran (NextEra) Jason Dickey (TRC) Gene Kelly (Harris Beach) Sam Laniado (Read & Laniado) Kaitlin McCormick (TRC)		
9/20/2019	Electronic	<u>Buckeye Partners</u> Chris Scheid  <u>NextEra Team</u> David Boxold (NextEra)	Project Update	Right of Way discussion for pipeline



Date	Location of Meeting/Method of Communication	Meeting Attendees/Communication Participants	Purpose of Meeting/Communication and Comments	Follow Up Action Items
9/23/2019	Geneva, NY	Participating Landowners  <u>NextEra Team</u> David Boxold (NextEra) John Ahearn (CanAcre)	Project Update	N/A
9/24/2019	Town of Waterloo	Adjacent Landowners  <u>NextEra Team</u> David Boxold (NextEra) John Ahearn (CanAcre)	Provide an overview of project to adjacent landowners	Once site layout is developed, review with landowners
9/24/2019	Advertisement	Advertisements placed in area newspapers	Notice of Preliminary Scoping Statement	N/A
9/25/2019	Serven Volunteer Fire Company Firehouse 352 Highway 5&20 Waterloo, NY  11am-1pm 5pm-7pm	Town of Waterloo Open House  <u>NextEra Team</u> Bill Boer (NextEra) David Boxold (NextEra) Joe Cartaya (NextEra) Keddy Chandran (NextEra) Coke Coakley (NextEra) Lisa Paul (NextEra) Yina Sun (NextEra) John Ahearn (CanAcre) Ed Coleman (CanAcre) John Lacey (Mower) Jason Dickey (TRC)	Questions from residents included property values, Article 10 next procedural steps, continued farming in the area, nature of the environmental studies, viewshed concerns, and construction jobs from the Project	Considering this public input in the Project design; press release for Eight Point Wind

Date	Location of Meeting/Method of Communication	Meeting Attendees/Communication Participants	Purpose of Meeting/Communication and Comments	Follow Up Action Items
		Nancy Vlahos (TRC) Sam Laniado (Read & Laniado) Michelle Piasecki (Harris Beach)		
9/26/2019	Electronic	Adjacent Landowner  <u>NextEra Team</u> David Boxold (NextEra)	Provide press release for Eight Point Wind	N/A
9/26/2019	Announcement	Recipients listed on project stakeholder list, which includes adjacent and participating landowners	Notice of submission of the PSS	N/A
9/30/2019 to 10/3/2019	Advertisements	Advertisements placed in area newspapers announcing PSS	Notification of PSS	N/A
9/30/2019	Electronic	<u>Town of Waterloo</u> Don Trout, Town Supervisor  <u>Seneca Board</u> Mitch Rowe, County Administrator  <u>NextEra Team</u> David Boxold (NextEra)	Informational statement regarding expected timing of PSS filing	N/A

Date	Location of Meeting/Method of Communication	Meeting Attendees/Communication Participants	Purpose of Meeting/Communication and Comments	Follow Up Action Items
10/2/2019	Phone Call	Waterloo Residents  <u>NextEra Team</u> David Boxold (NextEra)	Respond to two separate hotline calls that were received 10/2	N/A
10/7/2019	Email	Adjacent Landowner  <u>NextEra Team</u> David Boxold (NextEra)	Respond to email that was sent 10/5	NextEra extended an invitation to meet in person

**Trelina Solar Energy Center, LLC**  
**Case 19-F-0366**  
**80 Megawatt Solar Photovoltaic Generating Project**  
**Seneca County, New York**

**NOTICE OF SUBMISSION OF PRELIMINARY SCOPING STATEMENT**

Trelina Solar Energy Center, LLC (Trelina Solar Energy Center) is seeking authority from the New York State Board on Electric Generation Siting and the Environment (the Siting Board) to construct a 80 megawatt (MW) solar photovoltaic electric generating facility (the Project) in the Town of Waterloo, Seneca County, New York, pursuant to Article 10 of the New York State Public Service Law (PSL). Trelina Solar Energy Center hereby provides notice that it will file a Preliminary Scoping Statement (PSS) with the Siting Board on or about October 10, 2019. The PSS will summarize the proposed scope of studies that Trelina Solar Energy Center will undertake, the results of which will form the basis of its Application to the Siting Board. By this Notice, Trelina Solar Energy Center seeks input from the public, interested agencies, and municipalities on the scope and methodology of studies to be conducted pursuant to the PSS.

The Project components will include solar arrays, access roads, buried (and possibly overhead) electric collection lines, and electrical interconnection facilities. Additional Project facilities consist of a new collection substation and point of interconnection switchyard, which will be transferred to the New York State Electric and Gas Corporation (NYSEG) to own, maintain, and operate. The proposed collection substation and interconnection facilities will be located on land adjacent to NYSEG's existing Border City to Station 122 115 kV line. The Project is proposed to be constructed on land leased from private landowners.

The Project will safely generate enough clean, renewable electricity to power approximately 21,000 households. As a renewable resource, the Project will also avoid harmful emissions and other adverse impacts associated with traditional fossil-fueled generating facilities, and will be compatible with New York State's policies promoting renewable energy, including the 2015 State Energy Plan (SEP), the 2016 Clean Energy Standard (CES), and the recently enacted Climate Leadership and Community Protection Act, which collectively require at least 70% of the State's electricity to be derived from renewable resources by 2030, elimination of emissions from the electric sector by 2040, and development of 6,000 MW of solar energy by 2025.

Trelina Solar Energy Center anticipates that the Project will not have negative impacts on health, air, or water resources. Potential visual, wildlife, and agricultural impacts will be mitigated to the maximum extent practicable.

The PSS precedes the formal public scoping process and, based upon reasonably available information, describes and/or identifies the scope of review and studies that will be conducted under Article 10, including, among other things: the environmental setting of the Project Area, the potential environmental impacts associated with construction and operation of the Project; proposed benefits of the Project; proposed studies (including preconstruction studies and post-construction monitoring); security; decommissioning; proposed measures to avoid, mitigate, or minimize any potential environmental impacts; other required permits and authorizations; and other relevant information specified by law.

With the PSS, Trelina Solar Energy Center will also submit \$28,000 in intervenor funding, at least 50% of which is reserved for municipal parties. Interested parties may apply for intervenor funding to be used to pay for such things as administrative, attorney, and/or consultant fees to assist in participating in the Article 10 process. A guide to applying for intervenor funding can be found on the Siting Board's website at <https://on.ny.gov/2kvqD4g>.

Within 21 days after the PSS is filed, any person, agency, or municipality may submit comments on the PSS by serving such comments on the Applicant at the address below and filing a copy with the Secretary to Siting Board. Comments must reference Case 19-F-0366 and may be submitted in writing to Hon. Kathleen H. Burgess, Secretary to the Siting Board, New York State Public Service Commission, Agency Building 3, Albany, NY 12223-1350 or electronically to [secretary@dps.ny.gov](mailto:secretary@dps.ny.gov). Any interested person may also file a request with the Secretary to receive copies of all notices concerning the Project, including notices regarding pre-application stipulations. Documents filed in this proceeding may also be viewed on the DPS website at [www.dps.ny.gov](http://www.dps.ny.gov) by clicking on "Search" under the "Index" section at the bottom of the homepage and then entering "19-F-0366" in the "Search by Case Number" field.

The Applicant will prepare a summary of the material comments and any reply thereto within 21 days after the comment period is closed. The summary and responses will be filed and served in the same manner as the PSS.

Not less than 22 days after the PSS is filed, an Administrative Law Judge (ALJ) will hold a conference to, among other things, initiate the stipulation process in which Trelina Solar Energy Center and other parties may negotiate and agree upon refining studies, and other issues to be addressed in the Article 10 Application. The ALJ will also issue a notice of availability of pre-application intervenor funds providing a schedule and instructions on how interested parties may apply for such funds. Requests for intervenor funds are due within 30 days of issuance of the notice. A pre-application meeting will also be convened to consider funding requests no less than 45 but no more than 60 days after filing of the PSS.

Trelina Solar Energy Center will use the results of the studies it conducts to prepare the Application, which will be filed no less than 90 days after the PSS is filed. The Application will include a description of the Project, and evaluation of the environmental and health impacts and avoidance/mitigation measures, a summary of public involvement activities, a statement of why any local laws or ordinances should not be applied, electrical interconnection and system reliability studies, security and emergency plans, a statement demonstrating compliance with the most recent State Energy Plan, and other relevant information. The Application will also include such other information as required by the Siting Board's rules (16 NYCRR § 1001.1–1001.41) unless inapplicable or waived by the Siting Board.

The Siting Board will then determine whether the Application is compliant with filing requirements. Once it is deemed compliant, the PSL requires that the Siting Board render a decision on the Application within 12 months. Additional intervenor funds of \$80,000 will accompany the Application. Once the Application is deemed compliant, the Presiding Examiner will schedule a pre-hearing conference to identify intervenors, award intervenor funds, identify issues for the hearing, and establish a case schedule. The case schedule will include notice of the scheduling of a public hearing. The Siting Board will also issue a notice of availability of intervenor funds. After the hearings, intervenors may submit briefs to the ALJs, who will then issue a recommended decision upon which the Siting Board, in turn, will render its decision.

The Article 10 Application review process affords stakeholders and other interested parties ample opportunities to participate and ask questions and share comments, concerns, and knowledge with the Siting Board, including participation in and presentation of evidence at administrative hearings, all of which will be considered by the Siting Board in deciding whether to approve the Project. Additional information on how to participate in Siting Board matters may be obtained by contacting Trelina Solar Energy Center's project representative or the Siting Board Public Information Coordinator:

Trelina Solar Energy Center Project Representative

David Boxold  
NextEra Energy Resources, LLC  
700 Universe Blvd, FEW/JB  
Juno Beach, FL 33408  
Telephone: (561) 694-4735  
Email: David.Boxold@nexteraenergy.com

Siting Board Public Information Coordinator

James Denn  
NYS Department of Public Service  
3 Empire State Plaza  
Albany, NY 12223  
(518) 474-7080  
Email: james.denn@dps.ny.gov

To find more information, please go to the Siting Board's website at [www.dps.ny.gov/SitingBoard](http://www.dps.ny.gov/SitingBoard), the Project website at <https://www.trelinasolarenergycenter.com/>, or call the Project's toll-free number at 800-405-9723.

Copies of the PSS will also be available for review at the following local repositories:

- Town of Waterloo Municipal Offices, 66 Virginia Street, Waterloo, NY 13165
- Waterloo Library and Historical Society, 31 East Williams Street, Waterloo, NY 13165
- Geneva Public Library, 244 Main Street, Geneva, NY 14456

## **PUBLIC INVOLVEMENT PROGRAM PLAN**

**Trelina Solar Energy Center  
Town of Waterloo,  
Seneca County, New York**

**Case No.: 19-F-0366**



**Trelina Solar Energy Center LLC  
700 Universe Boulevard  
Juno Beach, Florida 33408**

**July 2019**

## Table of Contents

<b>1.</b>	<b>INTRODUCTION.....</b>	<b>1</b>
<b>2.</b>	<b>APPLICANT AND PROJECT DESCRIPTION .....</b>	<b>1</b>
2.1	Company Profile.....	1
2.2	Project Summary.....	2
2.3	Project Area and Study Area .....	3
<b>3.</b>	<b>PUBLIC INVOLVEMENT PROGRAM OVERVIEW .....</b>	<b>3</b>
3.1	PIP Plan Goals.....	3
3.2	PIP Plan Schedule .....	4
<b>4.</b>	<b>STAKEHOLDERS .....</b>	<b>4</b>
4.1	Identification of Stakeholders .....	4
4.2	Host Community .....	5
4.3	County Agencies .....	5
4.4	State Agencies .....	5
4.5	Federal Agencies.....	5
4.6	Legislative Representatives .....	5
4.7	Highway Departments.....	5
4.8	Schools .....	6
4.9	Emergency Responders .....	6
4.10	Adjacent Municipalities .....	6
4.11	Utilities .....	6
4.12	Public Interest Groups .....	6
4.13	Airports and Heliports .....	6
4.14	Participating Landowners .....	7
4.15	Adjacent Landowners .....	7
4.16	Area Residents.....	7
<b>5.</b>	<b>PUBLIC INVOLVEMENT PROGRAM ELEMENTS .....</b>	<b>8</b>
5.1	PIP Plan Activities, Schedule, and Goals .....	8
5.2	Consultation with Affected Agencies and other Stakeholders .....	8
5.2.1	Stakeholder Notifications .....	9
5.2.2	Collection of Stakeholder Input.....	9
5.2.3	Distribution of PSS and Application Documents to Stakeholders .....	10
5.3	Pre-Application Activities to Encourage Stakeholders to Participate at the Earliest Opportunity.....	10
5.3.1	Town Board Meetings .....	10
5.3.2	Open House Events .....	10
5.4	Project Contact Information.....	11
5.4.1	Local Access to Project Representatives.....	11
5.4.2	Toll Free Telephone Number.....	11
5.5	Activities Designed to Educate the Public on the Proposal, the Article 10 Review Process,	

and Funding.....	11
5.6 Website .....	12
5.7 Notifications .....	13
5.8 Activities Designed to Encourage Stakeholder Participation .....	14
5.8.1 Document Repositories .....	14
<b>6. ENVIRONMENTAL JUSTICE AREAS .....</b>	<b>15</b>
<b>7. LANGUAGE ACCESS .....</b>	<b>16</b>
<b>8. FIGURES .....</b>	<b>18</b>

## **Figures**

Figure 1. Regional Project Location .....	18
Figure 2. Project Area .....	19
Figure 3. Study Area .....	20

## **Appendices**

Appendix A. Stakeholder List	
Appendix B. Stakeholder Consultation Goals and Schedule	
Appendix C. PIP Plan Meeting Log	
Appendix D. Preliminary Project Schedule	



## List of Acronyms

ACENY	Alliance for Clean Energy New York, Inc.
CES	Clean Energy Standard
DMM	Document and Matter Management
DOE	Department of Energy
DPS	Department of Public Service
FAA	Federal Aviation Administration
GIS	Geographic information system
MW	megawatt
NYSDEC	New York State Department of Environmental Conservation
NYSEG	New York State Electric and Gas Corporation
NYSERDA	New York State Energy Research and Development Authority
O&M	operations and maintenance
PIP Plan	Public Involvement Program Plan
POC	point of contact
POI	point of interconnection
Project	Trelina Solar Energy Center
Project Area	locations being evaluated for placement of permanent Project facilities, including the proposed collection substation and interconnection facilities
PSL	Public Service Law
PSS	Preliminary Scoping Statement
SEP	2015 New York State Energy Plan
Siting Board	New York State Board on Electric Generation Siting and the Environment
Study Area	all areas within at least two (2) miles of the Project Area boundaries

## **1. INTRODUCTION**

Trelina Solar Energy Center, LLC, a wholly-owned indirect subsidiary of NextEra Energy Resources, LLC (“NextEra Energy Resources”), and formerly known as North Light Energy Center, plans to submit an application to construct a major electric generating facility (the “Trelina Solar Energy Center”) under Article 10 of the Public Service Law (PSL). Pursuant to the rules of the New York State Board on Electric Generation Siting and the Environment (Siting Board), applicants proposing to submit an application to construct a major electric generating facility under Article 10 must submit a Public Involvement Program Plan (PIP Plan). The PIP Plan must be submitted to the Department of Public Service (DPS) for review at least 150 days prior to filing a Preliminary Scoping Statement (PSS). This document is the PIP Plan for the Trelina Solar Energy Center (the “Project”), a solar energy facility described in Section 2.

As required by 16 NYCRR § 1000.4, this PIP Plan includes the following elements:

- 1) consultation with the affected agencies and other stakeholders;
- 2) pre-application activities to encourage stakeholders to participate at the earliest opportunity;
- 3) activities designed to educate the public as to the specific proposal and the Article 10 review process, including the availability of funding for municipal and local parties;
- 4) the establishment of a website to disseminate information to the public;
- 5) notifications; and
- 6) activities designed to encourage participation by stakeholders in the certification and compliance process.

## **2. APPLICANT AND PROJECT DESCRIPTION**

### **2.1 Company Profile**

NextEra Energy Resources, LLC, is the competitive energy subsidiary of NextEra Energy, Inc., a Fortune 200 company and the world's largest generator of renewable energy from the wind and sun. NextEra Energy Resources is primarily a wholesale power generator, operating power plants and selling the output to utilities, retail electricity providers, power cooperatives, municipal electric providers and large industrial companies. Nationally recognized as a leading clean energy provider, NextEra Energy Resources has a portfolio of facilities totaling more than 21,000 megawatts (MW) of generating capacity in the United States and Canada. More than 99 percent of our electricity is derived from clean or renewable sources, including wind, solar, natural gas and nuclear energy.

The Trelina Solar Energy Center would be compatible with the New York State policies promoting renewable energy goals, including the 2015 New York State Energy Plan (SEP), and the Clean Energy Standard (CES) which proposes to achieve 50 percent of the State's electricity to be generated from renewable sources by 2030 (the "50 by 30 goal"), and Governor Cuomo's State of the State address in January 2019 pledging to move New York to 100 percent carbon-free electricity by 2040.

Trelina Solar Energy Center, LLC intends to construct, own, operate, and maintain all components of the Project, with the exception of the interconnection switchyard. The switchyard facility will be constructed by Trelina Solar Energy Center, LLC, and then transferred to the New York State Electric & Gas Corporation (NYSEG), which will own, operate, and maintain the switchyard.

## **2.2 Project Summary**

Trelina Solar Energy Center, LLC is planning the Project to have a maximum generating capability of 80 MW of power located on land leased from owners of private property located in the Town of Waterloo, Seneca County, New York (Figure 1). The Project is planned to commence commercial operation in 2022 and will be designed to operate for at least 30 years.

Project facilities will include commercial-scale solar arrays, access roads, buried (and possibly overhead) electric collection lines, a Project collection substation, and electrical interconnection facilities. Trelina Solar Energy Center anticipates the interconnection facilities will include a 115 kV switchyard, which, as noted above, will be transferred to NYSEG to own and operate. The proposed collection substation and interconnection facilities will be located on land located within the Project Area (defined in Section 2.4 below), adjacent to NYSEG's existing Tap to Border City 115kV transmission line. With the entire Project subject to Article 10, the outreach activities described in this PIP Plan will address both the interconnection facilities and the solar energy facility.

The proposed Project will have positive socioeconomic impacts in the Project Area and beyond through employment opportunities, specifically by generating temporary construction employment. Based on similar Project experience elsewhere, Trelina Solar Energy Center estimates that approximately 100-150 temporary construction jobs (peak) will be created during the approximate 9-12 months of construction. Local construction employment will primarily benefit those in the construction trades, including equipment operators, truck drivers, laborers, and electricians. Trelina Solar Energy Center encourages local hiring to the greatest extent possible and workers from outside the area who fill specialized job functions will add to the regional economy by staying in area hotels, eating in the local restaurants and shopping in Seneca and Ontario County stores. The operation of the facility will require one to two local permanent employment positions.

## **2.3 Project Area and Study Area**

Figures 1 through 3 show the regional Project location, the Project Area and the preliminary Study Area to be used for analysis. For purposes of this document, Trelina Solar Energy Center is defining these areas as follows:

- The Project Area is the land for which the Applicant has obtained real property rights to develop the Project, and includes the locations being evaluated for placement of permanent Project facilities. As shown in Figure 2, the Project Area includes approximately 917 acres of land, portions of which would be utilized for the proposed solar energy center. Additional land area beyond what is required for the proposed solar energy center is included in the Project Area in order to provide setbacks from neighboring land uses and to minimize impacts to environmental resources to the maximum extent practicable.
- Consistent with 16 NYCRR § 1000.2(ar), the Study Area (as shown in Figure 3) is all areas within two (2) miles of the Project Area boundaries (which includes the planned location of Project generating facility components, interconnections and related facilities), and includes approximately 17,943 acres of land (inclusive of the approximately 917-acre Project Area). As a number of studies will be performed in support of the Application, some of the studies may utilize resource-specific study areas greater than the two-mile radius, as will be discussed in the PSS and in consultation with DPS.

The Project Area and Study Area are based on preliminary estimates of where facilities could be located. The PSS and Application will further define these areas.

## **3. PUBLIC INVOLVEMENT PROGRAM OVERVIEW**

### **3.1 PIP Plan Goals**

Trelina Solar Energy Center developed this PIP Plan so that comments of individuals and groups with a potential interest in the Project are objectively considered in the Project design and review. Specific PIP Plan goals are to:

- Identify groups and individuals with a potential interest in the Project, i.e., “stakeholders;”
- Implement activities to make stakeholders aware of the Project;
- Facilitate stakeholders access to information on the Project and the Article 10 review process in a relatively convenient manner;
- Engage stakeholders to understand their interests related to the Project and seek input as to how to best address their interests and concerns as the Project moves forward;

- Gather specific information from stakeholders that can be used to design objective and useful studies to be defined in the PSS and included in a complete Application for the Project.

### **3.2 PIP Plan Schedule**

Trelina Solar Energy Center will begin conducting PIP Plan activities during the pre-application phase, and these public involvement activities will continue throughout the Article 10 process until the Project begins commercial operation. Additional outreach to host landowners and municipal officials will take place during decommissioning activities. Specific PIP Plan activities and their schedules are discussed in Section 5.

## **4. STAKEHOLDERS**

### **4.1 Identification of Stakeholders**

Trelina Solar Energy Center has identified several categories of stakeholders. Overall, Trelina Solar Energy Center relied on its experience in developing other projects and the knowledge of its local representatives to identify potential stakeholders. The identification of stakeholders was based on DPS guidance, conducting internet research, site visits to the Project Area and Study Area, review of GIS records, tax records, and consultation with environmental/regulatory counsel.

Descriptions of stakeholder categories are located in the following sections below, and Appendix A contains the preliminary Project stakeholder list and the current known contact information for each stakeholder. A mailing list will be developed based on the stakeholders listed below and addresses solicited from public meetings, and those gathered from contacts generated through the Project website. The Applicant anticipates that the mailing list will be updated as necessary based on information received during PIP Plan activities and these updates will be provided to DPS along with the PIP Plan tracking submissions.

Project outreach materials will contain instructions on how to be added to the stakeholder list. Individuals or organizations will be able to be added to the stakeholder list by calling a Project representative, mailing a letter to a Project representative, by sending an email to Trelina Solar Energy Center through the Project website or requesting to be added to the Stakeholder List at an open house event.

Should any stakeholders “withdraw” from the list as a result of changes to Project siting, the Applicant will include a notation on the list indicating the reason for the removal (if one is provided by stakeholder).

## **4.2 Host Community**

For the purposes of this PIP Plan, host community refers to the municipality that includes the Project Area and is anticipated to include Project components. The Town Board and Planning Board representing the host community within the Project Area were identified by review of town and county boundary maps and are considered stakeholders. Points of contact (POC) will be the Town Supervisor and the Town Clerk. Notices will be addressed to each member of the Town Board and Planning Board at the address for the Town Hall.

## **4.3 County Agencies**

County agencies, with areas of responsibility potentially affected by the Project, were identified by review of the county websites and/or county GIS data. Note that the County Emergency Management Director and Sheriff are identified as stakeholders and are listed under the category of “Emergency Responders.”

## **4.4 State Agencies**

Departments of New York State governments were identified using Treline Solar Energy Center’s experience in developing utility projects in the region, as well as those agencies specifically identified in 16 NYCRR § 1000.5 and 1000.6.

## **4.5 Federal Agencies**

Agencies of the U.S. government were identified using Treline Solar Energy Center’s experience in developing projects in the United States, review of previous PIP Plan submittals, and DPS guidance.

## **4.6 Legislative Representatives**

Offices of the New York State Legislature, the U.S. Senate, and U.S. Congress representing the Study Area were identified by review of on-line district maps.

## **4.7 Highway Departments**

County and town departments responsible for managing roads in the Study Area were identified by review of town and county boundary maps, and online research.

#### **4.8 Schools**

School districts serving parcels in the Study Area and school districts adjacent to these districts were identified by review of county tax maps and online research.

#### **4.9 Emergency Responders**

Fire departments, emergency responders and police or sheriff departments serving parcels in the Study Area were identified by review of county tax maps and online research.

#### **4.10 Adjacent Municipalities**

Towns, villages, or other municipalities that are not host communities but are in the Study Area were identified by review of municipal boundary maps and GIS mapping.

#### **4.11 Utilities**

Companies that own gas, electric, or communications infrastructure in the Project Area were identified by available local and state geographic information databases (e.g., Ventyx), online research, and previous PIP Plan submittals. Utility companies will be contacted concerning location of facilities, design and safety standards for construction near existing infrastructure.

#### **4.12 Public Interest Groups**

Organizations that serve interests of the public in the Study Area were identified from the 2019 Seneca County Directory that includes county and town historians, and online research. This category includes business organizations, county and town historians, conservation or environmental organizations.

#### **4.13 Airports and Heliports**

The Federal Aviation Administration (FAA) evaluates potential impacts on air navigation for proposed structures that exceed certain criteria, such as heights greater than 200 feet above ground level and in close proximity to public use and military airports (14 CFR §77.9(a-e)). The proposed facility will not trigger notification to the FAA.

#### **4.14 Participating Landowners**

The property owners that have entered into lease, easement, purchase option, or setback agreements with Trelina Solar Energy Center and will allow construction of Project facilities on their property are considered “participating landowners”.

Trelina Solar Energy Center’s private contracts with landowners contain provisions for Trelina Solar Energy Center and landowners to work together on Project plans. These consultations are confidential discussions outside the scope of this PIP Plan. In addition to confidential communications with Trelina Solar Energy Center, participating landowners living in the Project Area will be notified of Project milestones and events in the same manner as all residents of the Study Area. Participating landowners will be included in mailings, outreach activities and notifications that are provided to the stakeholders identified in this PIP Plan and as the Project progresses. However, for privacy purposes, the stakeholder list may include addresses or parcel numbers rather than landowner identification.

#### **4.15 Adjacent Landowners**

Owners of properties that abut Project facilities, but who are not participating landowners, are considered “adjacent landowners.” Specifically, “adjacent landowners” are those landowners within 2,500 feet of the Project Area property boundaries. Potential adjacent landowners will be identified based on the preliminary Project layout and notified via mail. As the Project layout evolves, some stakeholders identified as adjacent landowners may recede while others may be added in response to changes in land acquisition and facilities siting. While all Study Area residents will be initially notified and have the opportunity to join the stakeholders list (see 4.16 below) once a Project layout is developed, Trelina Solar Energy Center will identify these adjacent landowners by review of tax records and will add the adjacent owners individually to the stakeholder list. These owners will receive mailings or emails notifying them of Project milestones and events. Adjacent landowners will be included in mailings, outreach activities and notifications that are provided to the stakeholders identified in this PIP Plan and as the Project progresses. However, for privacy purposes, the stakeholder list may include addresses or parcel numbers rather than landowner identification.

#### **4.16 Area Residents**

Residents of the Study Area who are not participating landowners or adjacent owners are included in the stakeholder list as one group. Trelina Solar Energy Center plans to notify these residents of the Project individually by mailing an informational flyer announcing the open houses



and providing general Project information to all unique addresses in the tax assessment rolls for the Study Area. At the open house, attendees will be encouraged to join the stakeholder list if they wish to continue to receive notice of future Project milestones (i.e., availability of the PSS, public statement hearings, filing of the Application). Besides the open house notifications, Trelina Solar Energy Center does not plan additional broad mailings to area residents that do not register as stakeholders. However, these residents would still likely hear more of the Project through public outreach activities, notices in area newspapers, and updates on the Project website.

## **5. PUBLIC INVOLVEMENT PROGRAM ELEMENTS**

The overall objective of the PIP Plan, which is inherent in each of the following elements, is to engage with all stakeholders in order to understand their varied interests and concerns as they relate to the Project, to seek their input and to gather specific, objective information that can be utilized to inform the detailed study plans that will make up the PSS, and to explain methods Trelina Solar Energy Center will use to keep stakeholders informed throughout the entire Article 10 process. To that end, the PIP Plan will involve the program elements outlined in the sections below.

### **5.1 PIP Plan Activities, Schedule, and Goals**

Appendix B lists the PIP Plan activities Trelina Solar Energy Center plans to conduct, and the schedule and goals for each activity. Public involvement activities will be conducted throughout the Article 10 process. Materials to encourage public involvement throughout the Article 10 process such as fact sheets covering topics listed in Section 5.5 below, and open house events are currently being prepared, and will be available on the Project website.

### **5.2 Consultation with Affected Agencies and other Stakeholders**

At any stakeholder meetings or conference calls, Trelina Solar Energy Center will be represented by one or more of the representatives identified in Section 5.4.1.

Each consultation meeting will include an overview of the proposed Project and the Article 10 review process. Additional topics covered during stakeholder consultations will vary depending on the stakeholder's role and potential impact. Examples of possible topics are the availability of funding for municipal and local parties, local laws, emergency response requirements, and potential environmental impacts. Stakeholder consultation meetings will be documented and summarized in the PIP Plan Meeting Log (as discussed in Section 5.8 below and included as Appendix C). The PIP Meeting Log will also identify, as applicable and appropriate, concerns or questions raised by the public, as well as the Applicant's response.

As appropriate, Trelina Solar Energy Center will conduct subsequent meetings to answer specific questions, and to discuss studies, mitigation, or other strategies that could address stakeholder concerns. A key to these interactions, and a core of the PIP Plan, is receiving information from the stakeholders.

A schedule of initial consultations is provided in Appendix B.

### **5.2.1 Stakeholder Notifications**

The Siting Board's rules establish the notification requirements for serving documents. In accordance with 16 NYCRR § 1000.7, Trelina Solar Energy Center will publish all required notices in the Finger Lakes Times, the Reveille Between the Lakes/Seneca Daily News, The Seneca County Area Shopper and the Finger Lakes Pennysaver in Seneca Falls, to the extent such publications are active (see Section 5.7). The notices will not be placed in the "legal notice" section of the newspapers but rather a prominent location in the newspaper will be sought to the extent reasonable and available.

As noted in Section 4.16, Trelina Solar Energy Center plans to notify residents of the Study Area of the Project individually by mailing an informational flyer announcing the open houses and providing general Project information to all unique addresses in the tax assessment rolls for the Study Area. Additional information on this notification can be found in Section 5.7.

No less than three days before filing of the PSS and the Application, Trelina Solar Energy Center will publish a notice of the PSS and the Application in the newspapers listed above; serve each member of the State Legislature in whose district any portion of the proposed Project is to be located; will provide written notice to those persons who have filed a statement with the Secretary within the past twelve months that wish to receive such notices; and provide mail and email (if available) notification to all parties on the Stakeholder List. In addition, notifications will be posted on the Project website, which is discussed in Section 5.6.

The Applicant will publish any other notices required by the Presiding Examiner or other section of Article 10 in the manner prescribed by the Presiding Examiner or under the procedures contained in Article 10.

### **5.2.2 Collection of Stakeholder Input**

For stakeholder groups, Trelina Solar Energy Center will identify and contact the group's POC to introduce the Project and offer to meet with the stakeholder group or POC. At stakeholder meetings Trelina Solar Energy Center will introduce NextEra Energy Resources, the Project, and the

Article 10 review process, and Trelina Solar Energy Center will solicit specific feedback on issues that stakeholders want considered in the Project design or review. This feedback will be tracked in a comment log as discussed in Section 5.8.1 below.

Depending on the number of individual stakeholders, it may not be practical to contact each individually. Regardless, individual stakeholders will be notified of several opportunities to learn about the Project and submit input, including on the Project website.

### **5.2.3 Distribution of PSS and Application Documents to Stakeholders**

Stakeholders will be made aware (via mail and email) of PSS and Application availability on the Project website, the DPS website and at various public document repositories. Trelina Solar Energy Center does not intend to provide individual hard copies of these documents to stakeholders, except as required under 16 NYCRR § 1000.5 and 1000.6.

## **5.3 Pre-Application Activities to Encourage Stakeholders to Participate at the Earliest Opportunity**

### **5.3.1 Town Board Meetings**

Trelina Solar Energy Center will offer to present at a scheduled Town Board meeting of the Town of Waterloo. As part of the presentation, Trelina Solar Energy Center representatives will discuss the Project, and the Article 10 process, and respond to questions and receive input from the Town Board. The above meeting and any future attendance at Town Board meetings will be documented in the PIP Plan Meeting Log.

### **5.3.2 Open House Events**

Trelina Solar Energy Center will hold two open house style public meetings prior to filing the PSS and two after the filing of the PSS, at a location that will strive to maximize coverage for the largest number of residents, likely to be held at two different times on the same day (such as one in the early afternoon and another in the evening) to help offer the best opportunities for interested persons to attend. At least three representatives of Trelina Solar Energy Center's development team will be present at the meetings and Trelina Solar Energy Center will provide notice by email to DPS Staff of the pending public meetings. The meetings will include poster displays on the Project, solar energy, and the Article 10 review process (including intervenor funding availability and application process). One-on-one and small group informational discussions may take place throughout the duration of the open houses, providing opportunities for attendees to gain information on the Project, have their questions addressed, and provide input to Trelina Solar Energy

Center representatives. As part of the open house discussions, Trelina Solar Energy Center representatives will emphasize the role of stakeholders and encourage interested area residents to join the stakeholder list.

## **5.4 Project Contact Information**

### **5.4.1 Local Access to Project Representatives**

The Project representative is:

Mr. David Boxold

Address: 700 Universe Blvd, FEW/JB

Juno Beach, FL 33408

Telephone: (561) 694-4735

Email: [David.Boxold@NextEraEnergy.com](mailto:David.Boxold@NextEraEnergy.com)

Contact information for the representative(s) (including name, address and email) will be posted in outreach materials and on the Project specific website (described below in Section 5.6). Additionally, this information will be made available at stakeholder consultations and at the open houses. At this stage in development, there will not be a local office.

### **5.4.2 Toll Free Telephone Number**

Trelina Solar Energy Center will maintain a toll free telephone number that includes a connection to an automated voicemail. The phone number will be advertised on the Project website and in outreach materials, and will be monitored for questions on the Project. Trelina Solar Energy Center will endeavor to respond to questions within two (2) business days of receipt.

The toll free phone number is: (800) 405-9723

## **5.5 Activities Designed to Educate the Public on the Proposal, the Article 10 Review Process, and Funding**

A Town Board meeting, the open houses (as described above) and other stakeholder meetings provide multiple opportunities for Trelina Solar Energy Center to disseminate information to the public concerning Project specifics, the Article 10 process, the availability of funding for municipal and local parties as well as receive information from the public. Educational materials will be available at all meetings including handouts on Project specifics and the public's role in the Article 10 process, including the intervenor fund, Project contact information, an invitation to join the stakeholder list and

the location of document repositories. All public meetings and written educational materials will also encourage interested parties to visit the Project website (described below) for information and updates. Materials and presentations will be posted on the Project website as they become available.

At the open houses, Trelina Solar Energy Center plans to have poster board displays covering topics such as:

- How photovoltaic solar energy works;
- Overview of proposed Trelina Solar Energy Center;
- Environmental and emission offset benefits of solar energy;
- Typical construction process for a solar energy center;
- Project schedule;
- Intervenor funding and Article 10 process (including Pre-Application stakeholder involvement and scoping process);
- Frequently asked questions (FAQ's);
- Information about NextEra Energy Resources, LLC;
- Studies expected to be required for permitting of the Project;
- Viewsheds;
- Project security features; and
- Economic benefits of the Project to the local economy.

Trelina Solar Energy Center will develop materials on the above topics using information from its knowledge of the Article 10 process, and industry sources such as New York State Energy Research and Development Authority's (NYSERDA) NY-Sun Program, the Alliance for Clean Energy New York, Inc. (ACENY), and the Department of Energy (DOE). Versions of these materials will be available on the Project website.

## **5.6 Website**

In order to disseminate information, Trelina Solar Energy Center has established a user-friendly website dedicated to the Project and written in plain English. Trelina Solar Energy Center will update the website as the Project develops and more information becomes available.

Project Website: [www.trelinasolarenergycenter.com](http://www.trelinasolarenergycenter.com)

The following items are posted (or will be posted once additional information is available) on the website:

- Project description and location;
- Estimated project timeline;
- Project benefits and need;
- Preliminary Project maps;
- Project contact information, including an email address and a telephone number;
- Summary of the Article 10 process;
- Summary of the intervenor funding process with instructions on how to apply;
- Addresses of local public document repositories;
- Links to the Article 10 Siting Board webpage and to case-specific documents filed for the Project;
- PIP Plan Meeting Log;
- Announcement of Open House events including their locations, dates and times; and,
- Instructions on how to join the stakeholder list.

Email inquiries through the website will receive an automated response acknowledging receipt of the question or comment, and a response from the Applicant will be provided within 2-3 days, as feasible and appropriate. If the request involves obtaining written documents the response will include an estimated mailing date of the materials.

## **5.7 Notifications**

As noted previously, Trelina Solar Energy Center plans to mail informational flyers (via First-Class US Postal Service) announcing the open houses and general project information to all unique addresses in the tax assessment rolls for the Study Area. In addition, the open houses will be properly advertised by mailings or emails to stakeholders (including to all Study Area residents as described above), on the Project website, and in the newspapers listed below. It is anticipated that the open houses will be advertised approximately two weeks prior to the event.

As part of its mailing to stakeholders on the open house, Trelina Solar Energy Center will include instructions on how to contact Trelina Solar Energy Center.

Trelina Solar Energy Center will publish notices as required by the Article 10 regulations. Notices of PSS and Application filings will be published on the Project website and in the following papers, to the extent such publications are active:

- The Finger Lakes Times, a paid-subscription, daily newspaper for the Finger Lakes region including Seneca, Ontario, Wayne and Yates Counties that also is utilized by the Host Municipality for public notices. <https://www.fltimes.com/>
- Reveille Between the Lakes/The Seneca Daily News, a free online-only daily news

source for Seneca County and surrounding area. <https://senecadaily.com/>

- [The Seneca County Area Shopper, a free weekly newspaper serving Seneca, Schuyler and Tompkins Counties. \(www.scashopper.com\)](http://www.scashopper.com)
- Finger Lakes Pennysaver in Seneca Falls

In addition to the newspaper notices the stakeholder list will be notified via email or mail (depending on their stated preference) when the PSS and Application filings will be available for review. The Applicant will include an updated stakeholder list with these filings, including host and adjacent landowners and other parties identified through the Applicant's outreach efforts, as well as proof that a mailing has occurred. Copies of the PSS and Application will be distributed to the local repositories in addition to being posted on the Project website.

## **5.8 Activities Designed to Encourage Stakeholder Participation**

All of the activities described above, including the open houses and various forms of stakeholder outreach, have been designed to provide opportunities for stakeholders to participate in the Article 10 process. Consultations will be considered successful if information about the Project and the Article 10 process (including PSS and Application submittal milestones and document availability) was provided to stakeholders in an appropriate and timely manner (as described above), any relevant information provided to the Applicant was utilized to help advance the PIP Plan process and the preparation, submittal and review of the Application, and if follow-up meetings or consultations were scheduled or undertaken, if necessary.

### **5.8.1 Document Repositories**

While all information pertaining to the Project will be updated via the Project website as appropriate, Trelina Solar Energy Center will also maintain hard copies of the PIP Plan, the PSS, the Article 10 Application, mailings, and announcements of open house events (and any updated subsequent versions of these documents) at the following locations for those stakeholders who may not have access to the website, or prefer to review hard copies:

- Town of Waterloo Town Hall, 66 Virginia Street, Waterloo, NY 13165
- Waterloo Library and Historical Society, 31 East Williams Street, Waterloo, NY 13165
- Geneva Public Library, 244 Main Street, Geneva, NY 14456

Stakeholder participation will be documented by Trelina Solar Energy Center through the following activity:

- PIP Plan Meeting Log: The log will document the event date, location, attendees (or category thereof), summary of topics discussed, and any follow-up steps. Trelina Solar Energy Center will file the PIP Plan Meeting Log with the Secretary to the Board and post it on the Project website on a quarterly basis.

## 6. ENVIRONMENTAL JUSTICE AREAS

The New York State Department of Environmental Conservation (NYSDEC) provides map files of Potential Environmental Justice Areas it identifies as census block groups with populations that meet one or more of the following thresholds:

- 51.1% or more of the population in an urban area reported themselves to be members of minority groups; or
- 33.8% or more of the population in a rural area reported themselves to be members of minority groups; or
- 23.59% or more of the population in an urban or rural area had household incomes below the federal poverty level.

According to a review of NYSDEC's website <https://www.dec.ny.gov/public/911.html> (accessed April 2019) which utilizes the 2000 Census as its most up to date data source, there is one Potential Environmental Justice Areas within the Study Area in the City of Geneva, Ontario County.

The Project Area, including a half-mile buffer, is wholly contained within the following:

- Census Block Groups 3 and 4, Census Tract 9506 in Seneca County
- Census Block Groups 1 and 3, Census Tract 9507 in Seneca County
- Census Block Group 2, Census Tract 504 in Ontario County
- Census Block Group 1, Census Tract 515 in Ontario County
- Census Block Group 2, Census Tract 517 in Ontario County
- Census Block Group 2, Census Tract 518 in Ontario county

Table 1 below provides the most current data from the U.S. Census Bureau's American Community Survey regarding poverty level and minority populations. Based on the review of the minority and low-income population of these Census Block Groups, the proposed location is adjacent to a Potential Environmental Justice Area, as defined by the State of New York.



<b>Table 1.</b>				
<b>Low-Income and Minority Populations within the Project Area and Half-Mile Buffer Area</b>				
<b>County</b>	<b>Census Tract</b>	<b>Census Block Group</b>	<b>Income in Past 12 Months Below Poverty Level</b>	<b>Minority (non-White, non-Hispanic) Population</b>
Seneca	9506	3	5%	1%
Seneca	9506	4	3%	4%
Seneca	9507	1	1%	5%
Seneca	9507	3	8%	0%
Ontario	504	2	3%	10%
Ontario	515	1	35%	29%
Ontario	517	2	29%	34%
Ontario	518	2	30%	37%
Source: 2013-2017 American Community Survey (ACS) 5-Year Estimate				

The intent of an Environmental Justice evaluation is to determine if air quality and associated health impacts are disproportionately affecting certain communities or populations. To guide such an evaluation, NYSDEC promulgated Commissioner Policy 29 (CP-29), entitled Environmental Justice and Permitting. CP-29 has limited applicability, applying only to applications for major projects and major modifications for permits relating to water pollution, air pollution, solid and hazardous waste management, and siting of industrial hazardous waste facilities. The Project will not require any such permits. Accordingly, CP-29 is not applicable to the Project. The Project will have no air emissions during operation, and, accordingly, CP-29 and NYSDEC regulations do not apply and the Environmental Justice Analysis outlined in 6 NYCRR §487.6 is not required and will not be provided in the Article 10 Application.

## 7. LANGUAGE ACCESS

Article 10 regulations require the PIP Plan to identify any language other than English spoken (1) by 5,000 or more persons, according to United States Census data, residing in any five-digit zip code postal zone in which any portion of such zone is located within the Study Area; and (2) by a significant population of persons residing in close proximity to the proposed facility, alternative locations, or interconnections. Table 2 lists the five-digit zip codes extending into the Study Area and the most prevalent non-English languages spoken.

<b>Table 2. Number of Residents of Study Area</b> <b>Zip Codes who speak a Language Other than English</b>						
Zip Code	Post Office	Total Population	Speak Only English	Percentage of Population that speaks only English	Most Prevalent Non-English Language Spoken	
					Language	Number
13165	Waterloo	9,955	9,494	95%	German or Other West German Languages	167
14456	Geneva	18,756	15,381	82%	Spanish	2,115
Source: 2013-2017 American Community Survey (ACS) 5-Year Estimate, Table ID C16001: Language Spoken at Home for the Population 5 Years and Over						

As shown above in Table 2, no language other than English is spoken by more than 5,000 people residing in any zip code within the Study Area.

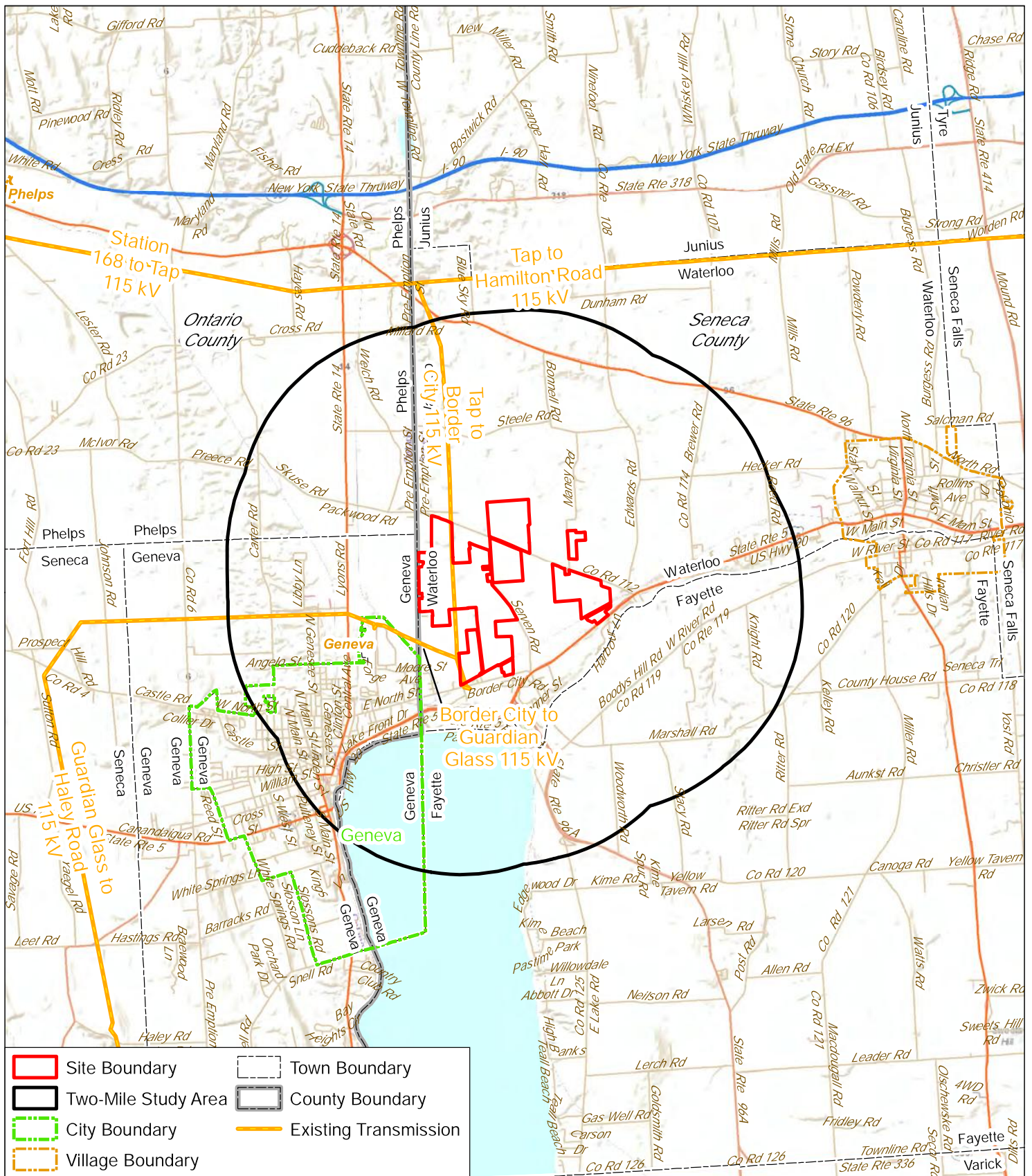
## **8. FIGURES**











**Study Area**  
**Trelina Solar Energy Center**  
**Town of Waterloo,**  
**Seneca County, New York**

0 0.75 1.5 Miles



FIGURE 3 JULY 2019



**Appendix A**  
**Stakeholders/Notification**  
**List**

<b><u>HOST COMMUNITY</u></b>	
Don Trout, Supervisor Town of Waterloo 66 Virginia Street Waterloo, NY 13165	Sandra Ridley, Town Clerk Town of Waterloo 66 Virginia Street Waterloo, NY 13165
Jim Cleere, Zoning Enforcement Officer Town of Waterloo 66 Virginia Street Waterloo, NY 13165	Michael Pfeiffer, Councilman Town of Waterloo 66 Virginia Street Waterloo, NY 13165
Bob Rodger, Councilman Town of Waterloo 66 Virginia Street Waterloo, NY 13165	Howard Strader, Councilman Town of Waterloo 66 Virginia Street Waterloo, NY 13165
Tyrone Thomas, Councilman Town of Waterloo 66 Virginia Street Waterloo, NY 13165	Reed Balewski, Chairman Town of Waterloo Planning Board 66 Virginia Street Waterloo, NY 13165
Perry Cleveland Town of Waterloo Planning Board 66 Virginia Street Waterloo, NY 13165	Dale Groom Town of Waterloo Planning Board 66 Virginia Street Waterloo, NY 13165
Kim Pfeiffer Town of Waterloo Planning Board 66 Virginia Street Waterloo, NY 13165	John Pigman Town of Waterloo Planning Board 66 Virginia Street Waterloo, NY 13165
Mike Smith Town of Waterloo Planning Board 66 Virginia Street Waterloo, NY 13165	Mike Toomf Town of Waterloo Planning Board 66 Virginia Street Waterloo, NY 13165
<b><u>COUNTY AGENCIES</u></b>	
Mitch Rowe, County Manager Seneca County Seneca County Office Building 1 DiPronio Drive Waterloo, NY 13165	Christina Lotz, County Clerk Seneca County Seneca County Office Building 1 DiPronio Drive Waterloo, NY 13165

Jill Henry, Director Seneca County Planning & Community Development Department Seneca County Office Building 1 DiPronio Drive Waterloo, NY 13165	Erin Peruzzini, District Manager Seneca County Soil & Water Conservation District 2041 US Route 20 Suite #2 Seneca Falls, NY 13148
Michael Reynolds Seneca County Board of Supervisors 3522 West Avenue Interlaken, NY 14847	Cindy Garlick Lorenzetti, Minority Leader Seneca County Board of Supervisors 4144 High Banks Road Geneva, NY 14456
C. Ernest Brownell Seneca County Board of Supervisors 675 Dublin Road Clyde, NY 14433	E. Lee Davidson, Majority Leader Seneca County Board of Supervisors 9270 Townsendville Road Interlaken, NY 14847
Walt Prouty Seneca County Board of Supervisors 2723 State Route 96 Ovid, NY 14521	David M. Kaiser Seneca County Board of Supervisors 7073 Ovid Depot Road Ovid, NY 14521
Gregory P. Lazzaro Seneca County Board of Supervisors 17 Shamrock Avenue Seneca Falls, NY 13148	Paul Kronenwetter Seneca County Board of Supervisors 2699 Lower Lake Road Seneca Falls, NY 13148
Ralph Lott Seneca County Board of Supervisors 2898 Route 414 Seneca Falls, NY 13148	Ronald F. McGreevy Seneca County Board of Supervisors 1907 West Tyre Road Seneca Falls, NY 13148
Robert W. Hayssen Seneca County Board of Supervisors 2221 Lake Road Seneca Falls, NY 13148	Don Trout Seneca County Board of Supervisors 1130 State Route 96 Waterloo, NY 13165
Robert Shipley, Chairman Seneca County Board of Supervisors 3008 East Avenue Waterloo, NY 13165	Lisa Hochadel Seneca County Board of Supervisors 79 Center Street Waterloo, NY 13165
Emily Hilimire, Chair Seneca County Chamber of Commerce 1 West Main Street Waterloo, NY 13165	Jeff Shipley, President & CEO Seneca County Chamber of Commerce 1 West Main Street Waterloo, NY 13165
Kathy Mastellar, Executive Director Seneca County Farm Service Agency 2041 US Route 20 Seneca Falls, NY 13148	Robert Aronson, Executive Director Seneca County IDA 1 DiPronio Drive Waterloo, NY 13165-1680



<b>STATE AGENCIES</b>	
Hon. Kathleen Burgess, Secretary, New York State Board on Electric Generation Siting and the Environment Empire State Plaza Agency Building 3 Albany, NY 12223	James Denn, Public Information Officer New York State Department of Public Service Empire State Plaza Agency Building 3 Albany, NY 12223-1350
Lorna Gillings, Outreach Contact New York State Department of Public Service Empire State Plaza Agency Building 3 Albany, NY 12223-1350	Graham Jesmer, Esq. Assistant Counsel Office of General Counsel New York State Department of Public Service 3 Empire State Plaza Albany, NY 12223
Basil Seggos, Commissioner NYS Department of Environmental Conservation 625 Broadway Albany, NY 12233	Paul D'Amato, Regional Director NYS Department of Environmental Conservation, Region 8 6274 E. Avon-Lima Road Avon, NY 14414-9519
Erik Kulleseid, Commissioner NYS Office of Parks, Recreation & Historic Preservation Peebles Island State Park P.O. Box 189 Waterford, NY 12188-0189	David Banfield, Chair OPRHP Finger Lakes Regional Commission 2221 Taughannock Park Road Trumansburg, NY 14886
Paul A. Karas, Acting Commissioner NYS Department of Transportation 50 Wolf Road Albany, NY 12232	David P. Smith, P.E., Regional Director NYS Department of Transportation, Region 3 333 E. Washington Street Syracuse, NY 13202
Matthew J. Driscoll, Acting Exec. Dir. New York State Thruway Authority Board of Directors 200 Southern Blvd. P.O. Box 189 Albany, NY 12201-0189	Richard Ball, Commissioner NYS Department of Agriculture and Markets 10B Airline Drive Albany, NY 12235
Richard L. Kaufmann, Board Chairman NYS Energy Research and Development Authority 17 Columbia Circle Albany, NY 12203-6399	Alicia Barton, President and CEO NYS Energy Research and Development Authority 17 Columbia Circle Albany, NY 12203-6399
Howard Zemsky, President and CEO Empire State Development Corporation 633 Third Avenue – Floor 37 New York, NY 10017	Vinnie Esposito, Regional Director Finger Lakes Region Empire State Development Corporation 400 Andrews Street, Suite 300 Rochester, NY 14604

Rossana Rosado, Secretary of State NYS Department of State One Commerce Plaza 99 Washington Avenue Albany, NY 12231-0001	Honorable Leticia James NYS Attorney General State Capitol Building Albany, NY 12224-0341
Howard A. Zucker, Commissioner of Health NYS Department of Health Corning Tower Empire State Plaza Albany, NY 12237	RoAnn Destito, Commissioner NYS Office of General Services 41st Floor, Corning Tower Empire State Plaza Albany, NY 12242
John B. Rhodes, Chair and CEO New York State Department of Public Service Empire State Plaza Agency Building 3 Albany, NY 12223-1350	James Austin, Chief of Office of Electric, Gas & Water New York State Department of Public Service Empire State Plaza Agency Building 3 Albany, NY 12223-1350
Michael Saviola New York State Department of Agriculture and Markets 1530 Jefferson Road Rochester, NY 14623	Kristen Cady-Poulin Project Manager New York State Department of Environmental Conservation 625 Broadway Albany, NY 12233
Mary Bonilla Senior Attorney New York State Department of Environmental Conservation 625 Broadway Albany, NY 12233	David Solimeno, Excelsior Fellow, Office of General Counsel New York State Department of Public Service Empire State Plaza Agency Building 3 Albany, NY 12223-1350
<b><u>FEDERAL AGENCIES</u></b>	
Steve Metivier, Chief, NY Evaluation Section U.S. Army Corps of Engineers Buffalo District ATTN: Regulatory Branch 1776 Niagara Street Buffalo, NY 14207-3199	David Stilwell, Field Supervisor US Fish and Wildlife Service 3817 Luker Road Cortland, NY 13045
Paige Atkins, Associate Administrator National Telecommunications and Information Administration (NTIA) Herbert C. Hoover Building (HCHB) 1401 Constitution Avenue, N.W. Washington, D.C. 20230	Steven J. Sample Mission Evaluation Branch US Department of Defense Siting Clearinghouse 3400 Defense Pentagon, Room 5C646 Washington, DC 10301
Jennifer Solomon Eastern Region Regional Administrator Federal Aviation Administration 1 Aviation Plaza Jamaica, NY 11434-4809	
<b><u>LEGISLATIVE REPRESENTATIVES</u></b>	

Charles E. Schumer Senator, State of New York US Senate Leo O'Brien Building 11A Clinton Avenue, Room 420 Albany, NY 12207	Kirsten E. Gillibrand Senator, State of New York US Senate Leo W. O'Brien Building 11A Clinton Avenue, Room 821 Albany, NY 12207
Tom Reed US Congressman, 23 <sup>rd</sup> District 433 Exchange Street Geneva, NY 14456	Pamela Helming NY State Senator, 54 <sup>th</sup> District 425 Exchange Street Geneva, NY 14456
Brian M. Kolb NY State Assemblyman, 131 <sup>st</sup> District 607 W. Washington Street Suite 2 Geneva, NY 14456	
<b><u>HIGHWAY DEPARTMENTS</u></b>	
Joe Mull, Highway Superintendent Town of Waterloo Highway Department 66 Virginia Street Waterloo, NY 13165	Roy Gates, Superintendent Seneca County Highway Department 2017 Prospect Street Romulus, NY 14541
Andy Brown, Superintendent Town of Fayette Highway Department 1431 Yellow Tavern Road Waterloo, NY 13165	Charles Blowers, Supervisor City of Geneva Highway Department 122 North Genesee Street Geneva, NY 14456
Bernie Peck, Superintendent Town of Geneva Highway Department 3750 County Road 6 Geneva, NY 14456	Terry Featherly, Superintendent Town of Phelps Highway Department 63 Mill Street Phelps, NY 14532
<b><u>SCHOOL DISTRICTS</u></b>	
Terri Bavis, Superintendent Waterloo Central School District 109 Washington Street Waterloo, NY 13165	Trina S. Newton, Superintendent Geneva City School District 400 West North Street Geneva, NY 14456
Matt Sickles, Superintendent Phelps-Clifton Springs Central School District 1490 State Route 488 Clifton Springs, NY 14432	
<b><u>EMERGENCY RESPONDERS</u></b>	
Michael Reese, Chief Waterloo Volunteer Fire Department P.O. Box 513 Waterloo, NY 13165	John Morabito, Chief Border City Fire Department P.O. Box 850 Geneva, NY 14456

Michael Combs, Chief Geneva Fire Department 47 Castle Street 2 <sup>nd</sup> Flood, City Hall Geneva, NY 14456	Chief Northside Fire Department 270 Carter Road Geneva, NY 14456
Michael Reifsteck, Chief Oaks Corners Fire Department 607 Cross Road Oaks Corners, NY 14518	Jay Pelton, Director of Operations North Seneca EMS 1645 North Road Waterloo, NY 14532
Melissa Taylor, Director Seneca County Emergency Management Seneca County Office Building 1 DiPronio Drive Waterloo, NY 13165	W. Timothy Luce, Sheriff Seneca County Sheriff's Office 6150 Route 96 Romulus, NY 14541
Kevin M. Henderson, Sheriff Ontario County Sheriff 3045 County Complex Drive Canandaigua, NY 14424	New York State Police, Troop E 1569 Rochester Road Canandaigua, NY 14425-0220
John P. Melville, Commissioner NYS Division of Homeland Security and Emergency Services 1220 Washington Avenue, State Office Campus Building 7A Suite 710 Albany, NY 12242	
<b><u>ADJACENT MUNICIPALITIES</u></b>	
Mark Venuti, Supervisor Town of Geneva 3750 County Road 6 Geneva, NY 14456	Mayor Alcock City of Geneva 47 Castle Street Geneva, NY 14456
Norman Teed, Supervisor Town of Phelps 79 Main Street Phelps, NY 14532	Cindy Garlick Lorenzetti, Supervisor Town of Fayette 1439 Yellow Tavern Road Waterloo, NY 13165
Ronald F. McGreevy, Town Supervisor Town of Tyre 1907 West Tyre Road Seneca Falls, NY 13148	Carolyn Sosnowski, Town Clerk Town of Tyre 1082 Gravel Road Seneca Falls NY 13148
Lorrie S. Naegele, Town Clerk Town of Geneva 3750 Co Rd 6 Geneva, NY 14456	Lori Guinan, City Clerk City of Geneva 47 Castle Street Geneva, New York 14456

Linda Nieskes, Town Clerk Town of Phelps 79 Main St Phelps, NY 14532	Nancy Murray, Town Clerk Town of Fayette 1439 Yellow Tavern Rd Waterloo, NY 13165
Ontario County Planning Department and Board 20 Ontario St., 2nd Floor Canandaigua, NY 14424	Gregory P. Lazzaro, Town Supervisor Town of Seneca Falls 130 Ovid St Seneca Falls, NY 13148
Nicaletta Greer, Town Clerk Town of Seneca Falls 130 Ovid St Seneca Falls, NY 13148	C. Ernest Brownell, Town Supervisor Town of Junius 655 Dublin Rd Clyde, NY 14433
Mary T. Prosser, Town Clerk Town of Junius 655 Dublin Rd Clyde, NY 14433	
<b>UTILITIES</b>	
Michael Bemis, Board Chair New York Independent System Operator 10 Krey Boulevard Rensselaer, NY 12144	Carl A. Taylor, President New York State Electric and Gas Corporation 18 Link Drive Binghamton, NY 13904
Buckeye Partners L.P. Breinigsville, PA Office 9999 Hamilton Blvd Bldg. 5 Breinigsville, PA 18031	
<b>PUBLIC INTEREST GROUPS / ADDITIONAL STAKEHOLDERS</b>	
Ave Bauder, Executive Director Cornell Cooperative Extension Seneca County Seneca County CCE Offices 308 Main Street Shop Centre Waterloo, NY 13165	Heath Eisele, District Conservationist USDA Natural Resources Conservation Service West Area 29 Liberty Street Suite 3 Batavia, NY 14020-3294
Sandra L. Riley, Town Historian 66 Virginia Street Waterloo, NY 13165	Judy Young, Town Historian 66 Virginia Street Waterloo, NY 13165
Walter Gable, County Historian Seneca County Office Building 1 DiPronio Drive Waterloo, NY 13165	Finger Lakes Land Trust 202 East Court Street Ithaca, NY 14850
<b>AIRPORTS/HELIPORTS</b>	
<i>None identified within Study Area</i>	
<b>HOST AND ADJACENT LANDOWNERS</b>	

[to be listed later]	
<b><u>AREA RESIDENTS AND DOCUMENT REPOSITORIES</u></b>	
Town of Waterloo Town Hall 66 Virginia Street Waterloo, NY 13165	Waterloo Library and Historical Society 31 East Williams Street Waterloo, NY 13165
Geneva Public Library 244 Main Street Geneva, NY 14456	

**Appendix B**  
**Stakeholder Consultation Goals and Schedule**

<b>Name</b>	<b>Goals of Consultation</b>	<b>Schedule</b>
<b>Federal Agencies / Representatives</b>		
US Fish and Wildlife Service	Identify any concerns related to Endangered Species Act, Migratory Bird Treaty Act and Bald and Golden Eagle Protection Act.	Consultation letter prior to submittal of the PSS and ongoing throughout Article 10 process.
US Army Corps of Engineers	Clarify jurisdiction and requirements under Section 404 and Clean Water Act.	Initiate prior to submittal of Article 10 application and ongoing throughout Article 10 process.
US Department of Defense	Discuss any navigational issues of concern to military aircraft.	Consultation letter prior to submittal of Article 10 application and ongoing throughout Article 10 process (as necessary).
US Senator Charles E. Schumer	Notification as required by Article 10.	Prior to submittal of Article 10 application and ongoing throughout Article 10 process (as necessary).
US Senator Kristen E. Gillibrand	Notification as required by Article 10.	Prior to submittal of Article 10 application and ongoing throughout Article 10 process (as necessary).
US Congressman Tom Reed (District 23)	Notification as required by Article 10.	Prior to submittal of Article 10 application and ongoing throughout Article 10 process (as necessary).

Name	Goals of Consultation	Schedule
<b>New York State Agencies / Representatives</b>		
Members of NYS Assembly (Brian Kolb – 131 <sup>st</sup> District) and NYS Senate (Pamela Helming – 54 <sup>th</sup> District)	Introduce Project, Article 10 process, and provide contact information.	Introductory letter to be sent prior to PSS.
	Notification as required by Article 10.	Prior to submittal of the PSS.
	Respond to specific inquiries or comments.	As requested by the Stakeholder.
NYS Department of Public Service	Introduce the Project and coordinate Article 10 process.	Introductory meeting to be held prior to submittal of PSS, to be followed by others as needed. Correspondence anticipated to occur throughout Article 10 process.
NYS Department of Environmental Conservation (NYSDEC), Main Headquarter and Region 8 Staff	Introduce Project and provide contact information; identify agency concerns related to RTE species, wetlands and streams.	Introductory meeting to be requested prior to submittal of PSS, to be followed by others as needed. Correspondence anticipated to occur throughout Article 10 process.
	Additional input of survey plans; feedback on study results.	
NYS Office of Parks, Recreation and Historic Preservation	Coordinate consultation in accordance with Section 14.09 of the New York State Parks, Historic Preservation Law, and/or Section 106 of the Historic Preservation Act, as required.	Correspondence and meetings to be requested prior to the Article 10 Application submittal to inform of work plans and contents of cultural studies; ongoing interaction to review findings as necessary throughout Article 10 process.



Name	Goals of Consultation	Schedule
OPRHP, Finger Lakes Regional Commission	Coordinate consultation in accordance with Section 14.09 of the New York State Parks, Historic Preservation Law, and/or Section 106 of the Historic Preservation Act, as required.	Correspondence and meetings to be requested prior to the Article 10 Application to inform work plans and contents of cultural studies; ongoing interaction to review findings as necessary throughout Article 10 process.
NYS Department of Health	Notification as required by Article 10.	Prior to submittal of the Article 10 Application and ongoing throughout Article 10 process (as necessary).
NYS Department of Transportation	Notification as required by Article 10.	Prior to submittal of the Article 10 Application and ongoing throughout Article 10 process (as necessary).
NYS Energy Research and Development Authority	Notification as required by Article 10.	Prior to submittal of the Article 10 Application and ongoing throughout Article 10 process (as necessary).
NYS Division of Homeland Security and Emergency Services	Notification as required by Article 10.	Prior to submittal of the Article 10 Application and ongoing throughout Article 10 process (as necessary).

Name	Goals of Consultation	Schedule
NYS Department of State	Notification as required by Article 10	Prior to submittal of the Article 10 Application and ongoing throughout Article 10 process (as necessary).
NYS Department of Ag & Markets	Notification as required by Article 10; Introduce Project including contact information; discuss areas of interest and identify agency concerns.	Introductory meeting to be requested prior to submittal of PSS; consultation anticipated to occur throughout Article 10 process (as necessary).
Empire State Development Corporation	Notification as required by Article 10.	Consultation letter anticipated prior to submittal of the Article 10 Application.
NYS Attorney General	Notification as required by Article 10.	Prior to submittal of the Article 10 Application.
New York Independent System Operator	Participation in interconnection process.	Interconnection filings to be submitted prior to submittal of the Article 10 Application.
New York State Thruway Authority	Notification as required by Article 10.	Prior to submittal of the Article 10 Application.

Name	Goals of Consultation	Schedule
<b>Host County</b>		
Seneca County Manager (Mitch Rowe)	Notification to introduce Project, Article 10 process, intervenor funding and provide contact information. Follow-up to discuss Project related areas of interest or concern.	Notification prior to submittal of the PSS; additional consultation anticipated to occur throughout the Article 10 process (as necessary).
Seneca County Board of Supervisors (Chairman Robert Shipley)	Notification to introduce Project, Article 10 process, intervenor funding and provide contact information. Follow-up to discuss Project related areas of interest or concern.	Notification prior to submittal of the PSS; additional consultation anticipated to occur throughout the Article 10 process (as necessary).
Seneca County Board of Supervisors	Notification to introduce Project, Article 10 process, intervenor funding and provide contact information. Follow-up to discuss Project related areas of interest or concern.	Notification prior to submittal of the PSS; additional consultation anticipated to occur throughout the Article 10 process (as necessary).
District Manager Seneca County Soil & Water Conservation District (Erin Peruzzini)	Notification to introduce Project, Article 10 process, intervenor funding and provide contact information. Follow-up to discuss Project related areas of interest or concern.	Notification prior to submittal of the PSS; additional consultation anticipated to occur throughout the Article 10 process (as necessary).
Seneca County Planning & Community Development Department (Jill Henry, Director)	Notification to introduce Project, Article 10 process, intervenor funding and provide contact information. Follow-up to discuss Project related areas of interest or concern.	Notification prior to submittal of the PSS; additional consultation anticipated to occur throughout the Article 10 process (as necessary).

Name	Goals of Consultation	Schedule
Seneca County Highway Department (Roy Gates, Superintendent)	Notification to introduce Project, Article 10 process, intervenor funding and provide contact information. Follow-up to discuss Project related areas of interest or concern if requested.	Notification prior to submittal of the PSS; additional consultation anticipated to occur throughout the Article 10 process (as necessary).
<b>Host Municipality</b>		
<b>Town of Waterloo</b>		
Town Supervisor (Don Trout)	Introduce Trelina Solar Energy Center and the Project, Article 10 process, intervenor funding and provide contact information; Discuss Project related areas of interest or concern if requested.	Introductory meeting to be requested prior to submittal of PSS and throughout the Article 10 process (as necessary).
Town Clerk (Sandra Ridley)	Notification to introduce Project, Article 10 process, intervenor funding and provide contact information. Follow-up to discuss Project related areas of interest or concern if requested.	Notification prior to submittal of the PSS and ongoing throughout Article 10 process (as necessary).
Town Zoning Enforcement Officer (Jim Cleere)	Notification to introduce Project, Article 10 process, intervenor funding and provide contact information. Follow-up to discuss Project related areas of interest or concern if requested.	Notification prior to submittal of the PSS and ongoing throughout Article 10 process (as necessary).

Name	Goals of Consultation	Schedule
Town Highway Department Superintendent (Joe Mull)	Notification to introduce Project, Article 10 process, intervenor funding and provide contact information. Follow-up to discuss Project related areas of interest or concern if requested.	Notification prior to submittal of the PSS and ongoing throughout Article 10 process (as necessary).
<b>Airports/Heliports</b>		
<i>None currently identified in Study Area</i>		
<b>School Districts</b>		
Waterloo Central School District	Notification to introduce Project, Article 10 process, intervenor funding and provide contact information. Follow-up to discuss Project related areas of interest or concern if requested.	Notification prior to submittal of the PSS and ongoing throughout Article 10 process (as necessary).
Geneva City School District	Notification to introduce Project, Article 10 process, intervenor funding and provide contact information. Follow-up to discuss Project related areas of interest or concern if requested.	Notification prior to submittal of the PSS and ongoing throughout Article 10 process (as necessary).
Phelps-Clifton Springs School District	Notification to introduce Project, Article 10 process, intervenor funding and provide contact information. Follow-up to discuss Project related areas of interest or concern if requested.	Notification prior to submittal of the PSS and ongoing throughout Article 10 process (as necessary).

Name	Goals of Consultation	Schedule
<b>Chambers of Commerce</b>		
Seneca County Chamber of Commerce	Notification to introduce Project, Article 10 process, intervenor funding and provide contact information. Follow-up to discuss Project related areas of interest or concern if requested.	Notification prior to submittal of the PSS and ongoing throughout Article 10 process (as necessary).
<b>Emergency Responders</b>		
Fire Departments (Waterloo, Border City, Geneva, Northside, Oaks Corners)	Notification to introduce Project, Article 10 process, intervenor funding and provide contact information. Follow-up to discuss Project related areas of interest or concern if requested.	Notification prior to submittal of the PSS and ongoing throughout Article 10 process (as necessary).
Emergency Management (North Seneca EMS, Seneca County Emergency Management)	Notification to introduce Project, Article 10 process, intervenor funding and provide contact information. Follow-up to discuss Project related areas of interest or concern if requested.	Notification prior to submittal of the PSS and ongoing throughout Article 10 process (as necessary).
Seneca County Sheriff's Office/Ontario County Sheriff's Office	Notification to introduce Project, Article 10 process, intervenor funding and provide contact information. Follow-up to discuss Project related areas of interest or concern if requested.	Notification prior to submittal of the PSS and ongoing throughout Article 10 process (as necessary).
New York State Police, Troop E	Notification to introduce Project, Article 10 process, intervenor funding and provide contact information. Follow-up to discuss Project related areas of interest or concern if requested.	Notification prior to submittal of the PSS and ongoing throughout Article 10 process (as necessary).

Name	Goals of Consultation	Schedule
NYS Division of Homeland Security and Emergency Services	Notification to introduce Project, Article 10 process, intervenor funding and provide contact information. Follow-up to discuss Project related areas of interest or concern if requested.	Notification prior to submittal of the PSS and ongoing throughout Article 10 process (as necessary).
<b>Adjacent Municipalities</b>		
City of Geneva, Towns of Geneva, Phelps and Fayette	Notification to introduce Project, Article 10 process, intervenor funding and provide contact information. Follow-up to discuss Project related areas of interest or concern if requested.	Notification prior to submittal of the PSS and ongoing throughout Article 10 process (as necessary).
<b>Additional Stakeholders</b>		
Participating Landowners	Landowner agreements.	Correspondence by phone, mail or in-person meeting per Article 10 regulations and as needed.
Adjacent Landowners	Notification to introduce Project, Article 10 process, intervenor funding and provide contact information. Follow-up to discuss Project related areas of interest or concern if requested.	Notification prior to submittal of the PSS and ongoing throughout Article 10 process (as necessary).

Name	Goals of Consultation	Schedule
Area Residents	Notification to introduce Project, Article 10 process, intervenor funding and provide contact information. Follow-up to discuss Project related areas of interest or concern if requested.	Notification prior to submittal of the PSS and ongoing throughout Article 10 process (as necessary).
Town of Waterloo Historian	Notification to introduce Project, Article 10 process, intervenor funding and provide contact information. Follow-up to discuss Project related areas of interest or concern if requested.	Notification prior to submittal of the PSS and ongoing throughout Article 10 process (as necessary).
USDA Farm Service Agency	Notification to introduce Project, Article 10 process, intervenor funding and provide contact information. Follow-up to discuss Project related areas of interest or concern if requested.	Notification prior to submittal of the PSS and ongoing throughout Article 10 process (as necessary).
USDA Natural Resources Conservation Service	Notification to introduce Project, Article 10 process, intervenor funding and provide contact information. Follow-up to discuss Project related areas of interest or concern if requested.	Notification prior to submittal of the PSS and ongoing throughout Article 10 process (as necessary).
Cornell Cooperative Extension, Seneca County	Notification to introduce Project, Article 10 process, intervenor funding and provide contact information. Follow-up to discuss Project related areas of interest or concern if requested.	Notification prior to submittal of the PSS and ongoing throughout Article 10 process (as necessary).



Name	Goals of Consultation	Schedule
Seneca County USDA Farm Service Agency	Notification to introduce Project, Article 10 process, intervenor funding and provide contact information. Follow-up to discuss Project related areas of interest or concern if requested.	Notification prior to submittal of the PSS and ongoing throughout Article 10 process (as necessary).
USDA Natural Resources Conservation Service	Notification to introduce Project, Article 10 process, intervenor funding and provide contact information. Follow-up to discuss Project related areas of interest or concern if requested.	Notification prior to submittal of the PSS and ongoing throughout Article 10 process (as necessary).
Seneca County IDA	Notification to introduce Project, Article 10 process, intervenor funding and provide contact information. Follow-up to discuss Project related areas of interest or concern if requested.	Notification prior to submittal of the PSS and ongoing throughout Article 10 process (as necessary).
Seneca County Historian	Notification to introduce Project, Article 10 process, intervenor funding and provide contact information. Follow-up to discuss Project related areas of interest or concern if requested.	Notification prior to submittal of the PSS and ongoing throughout Article 10 process (as necessary).
NYSEG	Notification to introduce Project, Article 10 process, intervenor funding and provide contact information. Follow-up to discuss Project related areas of interest or concern if requested.	Notification prior to submittal of the PSS and ongoing throughout Article 10 process (as necessary)

**Appendix C**  
**Trelina Solar Energy Center PIP**  
**Plan Meeting Log**

Date	Location of Meeting/Method of Communication	Meeting Attendees/Communication Participants	Purpose of Meeting/Communication and Comments	Follow Up Action Items
8/13/2018	Phone	<u>Seneca County Chamber</u> Jeff Shipley, President & CEO  <u>NextEra Energy</u> Keddy Chandran (NextEra)	Introduce NextEra Energy Resources (NextEra); discuss solar development	N/A
8/13/2018	Phone	<u>Town of Waterloo</u> Don Trout, Town Supervisor  <u>NextEra Energy</u> Keddy Chandran (NextEra)	Left voicemail to introduce NextEra Energy Resources (NextEra); discuss solar development	N/A
2/13/2019	Town of Waterloo	<u>Town of Waterloo</u> Don Trout, Town Supervisor  <u>Seneca County IDA</u> Bob Aronson, Executive Director  <u>NextEra Energy</u> Keddy Chandran (NextEra) Bill Boer (NextEra) Mike Nozzolio (Harris Beach)	Introduce NextEra Energy Resources (NextEra); discuss solar development	N/A

3/25/2019	Town of Waterloo	<u>Town of Waterloo</u> Town Board Meeting  <u>NextEra Energy</u> Mike Nozzolio (Harris Beach)	Attend Town Board meeting during which new solar law was enacted	N/A
4/18/2019	DPS Offices	<u>DPS</u> James Austin Brian Ossias Andrew Davis Leka Gjonaj  <u>NextEra</u> Keddy Chandran (NextEra) Bill Flynn (Harris Beach) Michelle Piasecki (Harris Beach)	Discussed and introduced project	N/A
5/10/2019	Phone Call	<u>NYSERDA</u> Doreen Harris  <u>NextEra</u> Bill Flynn (Harris Beach)	Provided update on planned submission of PIP Plan.	N/A
5/10/2019	Phone Call	<u>DPS</u> James Austin  <u>NYSERDA</u> Doreen Harris  <u>NextEra</u> Bill Flynn (Harris Beach PLLC), Counsel to NextEra	Provided update on planned submission of PIP Plan.	N/A
5/30/2019	Seneca County Office Building	<u>Town of Waterloo</u> Don Trout, Town Supervisor  <u>Seneca County IDA</u>	Introduce NextEra Energy Resources (NextEra); discuss solar development	Present at a regularly scheduled Waterloo Town Board meeting (TBD)

		<p>Bob Aronson, Executive Director</p> <p><u>NextEra Energy</u> Keddy Chandran David Boxold Mike Nozzolio (Harris Beach)</p>		
6/12/2019	Town of Waterloo	<p><u>Town of Waterloo</u> Don Trout, Town Supervisor Jim Cleere, Town Assessor/Code/Zoning</p> <p><u>NextEra Energy</u> David Boxold (NextEra)</p>	Discuss IDA questions (project boundary and Opportunity Zone) as well as potential property tax implications	Property tax question
6/15/2019	Phone	<p><u>Town of Waterloo</u> Jim Cleere, Town Assessor/Code/Zoning</p> <p><u>NextEra Energy</u> David Boxold (NextEra)</p>	Left message regarding property taxes	N/A
6/20/2019	Village of Waterloo	<p><u>Seneca County Chamber</u> Jeff Shipley, President &amp; CEO</p> <p><u>Seneca Board</u> Robert Shipley, Board of Supervisors Chairman</p> <p><u>NextEra Energy</u> David Boxold (NextEra) Mike Nozzolio (Harris Beach)</p>	Introduce NextEra Energy Resources (NextEra); discuss solar development	Present at Seneca County Chamber of Commerce (TBD)
6/20/2019	Village of Waterloo	<u>Village of Waterloo</u>	Introduce NextEra Energy	N/A

		<p>Jack O'Connor, Mayor Don Northrup, Village Administrator</p> <p><u>NextEra Energy</u> David Boxold (NextEra) Mike Nozzolio (Harris Beach)</p>	Resources (NextEra); discuss solar development	
6/21/2019	Town of Waterloo	<p><u>Town of Waterloo</u> Don Trout, Town Supervisor</p> <p><u>NextEra Energy</u> David Boxold (NextEra)</p>	Discuss IDA questions (project boundary and Opportunity Zone)	N/A
7/02/2019	USPS	<p><u>Town of Waterloo</u> Jim Cleere, Town Assessor/Code/Zoning</p> <p><u>NextEra Energy</u> David Boxold (NextEra)</p>	Inform Town of Waterloo of proposed location for temporary meteorological station	N/A
7/11/2019	Phone	<p><u>Seneca County Chamber</u> Jeff Shipley, President &amp; CEO Mackenzie Green, Membership Development Manager</p> <p><u>NextEra Energy</u> David Boxold (NextEra)</p>	Discuss membership with the Chamber of Commerce	N/A

**Appendix D**  
**Trelina Solar Energy Center**  
**Preliminary Project Schedule**

*\*Please note – all dates are estimated and subject to change; notification of major project milestones and public participation opportunities will be provided as information is available.*

**May 2019** – Submit Preliminary Public Involvement Program Plan with NYSDPS

**July 2019** – File Final Public Involvement Program Plan with NYSDPS

**Summer 2019** – Public Open House Informational Meeting (two meeting times same day); Public to be notified of specific date/location prior to meeting

**Fall 2019** – File Preliminary Scoping Statement

**Winter/Spring 2020** – Public Open House Informational Meeting (two meeting times same day); Public to be notified of specific date/location prior to meeting

**Spring 2020** – File Article 10 Application

**Fall 2021** – Siting Board Decision on Issuance of Article 10 Certificate

**Winter 2022** – Commercial Operation Date

**Trelina Solar Energy Center, LLC**  
**Trelina Solar Energy Center Project**

**Stakeholder List**

**HOST COMMUNITY**

Don Trout, Supervisor Town of Waterloo 66 Virginia Street Waterloo, NY 13165	Sandra Ridley, Town Clerk/Supervisor's Administrative Assistant Town of Waterloo 66 Virginia Street Waterloo, NY 13165
Jim Cleere, Town Assessor/Code/Zoning Town of Waterloo 66 Virginia Street Waterloo, NY 13165	Michael Pfeiffer, Town Council Member Town of Waterloo Council 66 Virginia Street Waterloo, NY 13165
Bob Rodger, Town Council Member Town of Waterloo Council 66 Virginia Street Waterloo, NY 13165	Howard Strader, Town Council Member Town of Waterloo Council 66 Virginia Street Waterloo, NY 13165
Tyrone Thomas, Town Council Member Town of Waterloo Council 66 Virginia Street Waterloo, NY 13165	

**HIGHWAY DEPARTMENTS**

Roy Gates, Superintendent of Highways Seneca County 2017 Prospect Street Romulus, NY 14541	Joe Mull, Town Highway Superintendent Town of Waterloo, NY 66 Virginia Street Waterloo, NY 13165
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**COUNTY AGENCIES**

Matthew L. Ossenfort, County Manager Seneca County County Office Building 1 DiPronio Drive Waterloo, NY 13165	Christina Lotz, County Clerk Seneca County County Office Building 1 DiPronio Drive Waterloo, NY 13165
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<p>Jill Henry, Director Seneca County Department of Planning and Community Development County Office Building 1 DiPronio Drive Waterloo, NY 13165</p>	<p>Erin Peruzzini, District Manager Seneca County Soil &amp; Water Conservation District Seneca County SWCD Office 2041 US Route 20, Suite 2 Seneca Falls, NY 13148</p>
<p>Robert Shipley, Chairman and Supervisor Waterloo Seneca County Board of Supervisors 3008 East Avenue Waterloo, NY 13165</p>	<p>Michael Reynolds, Supervisor Covert Seneca County Board of Supervisors 3522 West Avenue Interlaken, NY 14847</p>
<p>Cindy Garlick Lorenzetti, Supervisor and Minority Leader Fayette Seneca County Legislature 4144 High Banks Road Geneva, NY 14456</p>	<p>C. Ernest Brownell, supervisor Junius Seneca County Board of Supervisors 675 Dublin Road Clyde, NY 14433</p>
<p>E. Lee Davidson, Supervisor and Majority Leader Lodi Seneca County Board of Supervisors 9270 Townsendville Road Interlaken, NY 14847</p>	<p>Walt Prouty, Supervisor Ovid Seneca County Board of Supervisors 2723 State Route 96 Ovid, NY 14521</p>
<p>David M. Kaiser, Supervisor Romulus Seneca County Board of Supervisors 7073 Ovid Depot Road Ovid, NY 14521</p>	<p>Gregory P. Lazzaro, Supervisor Seneca Falls Seneca County Board of Supervisors 17 Shamrock Avenue Seneca Falls, NY 13148</p>
<p>Paul Kronenwetter, Supervisor Seneca Falls Seneca County Board of Supervisors 2699 Lower Lake Road Seneca Falls, NY 13148</p>	<p>Seneca County Agriculture Enhancement Board Seneca County CCE Offices 308 Main Street Shop Centre Waterloo, NY 13165</p>

<p>Ralph Lott, Supervisor Seneca Falls Seneca County Board of Supervisors 2898 Route 414 Seneca Falls, NY 13148</p>	<p>Don Trout, Supervisor Waterloo Seneca County Board of Supervisors 1130 State Route 96 Waterloo, NY 13165</p>
<p>Ronald F. McGreevy, Supervisor Tyre Seneca County Board of Supervisors 1907 West Tyre Road Seneca Falls, NY 13148</p>	<p>Lisa Hochadel, Supervisor Waterloo Seneca County Board of Supervisors 79 Center Street Waterloo, NY 13165</p>
<p>Robert W. Hayssen, Supervisor Varick Seneca County Board of Supervisors 2221 Lake Road Seneca Falls, NY 13148</p>	

### **STATE AGENCIES**

<p>Hon. Kathleen Burgess, Secretary, New York State Board on Electric Generation Siting and the Environment Empire State Plaza Agency Building 3 Albany, NY 12223</p>	<p>James Denn, Public Information Officer New York State Department of Public Service Empire State Plaza Agency Building 3 Albany, NY 12223-1350</p>
<p>Mary Bonilla, Senior Attorney NYS Department of Environmental Conservation 625 Broadway Albany, NY 12207</p>	<p>Andrea Cerbin, Esq., Assistant Counsel Office of General Counsel New York State Department of Public Service Agency Building 3 Albany, NY 12223-1350</p>
<p>Lorna Gillings, Outreach Contact New York State Department of Public Service Empire State Plaza Agency Building 3 Albany, NY 12223-1350</p>	<p>Basil Seggos, Acting Commissioner NYS Department of Environmental Conservation 625 Broadway Albany, NY 12233</p>

<p>Paul D'Amato, Regional Director NYS Department of Environmental Conservation, Region 8 6274 E. Avon-Lima Road Avon, NY 14414-9519</p>	<p>Kristen Cady-Poulin, Environmental Analyst NYS Department of Environmental Conservation 625 Broadway Albany, NY 12233</p>
<p>Erik Kulleseid, Commissioner NYS Office of Parks, Recreation &amp; Historic Preservation Peebles Island State Park P.O. Box 189 Waterford, NY 12188-0189</p>	<p>David Banfield, Chair OPRHP, Finger Lakes Office 2221 Taughannock Road Trumansburg, NY 14886</p>
<p>Marie Dominguez, Acting Commissioner NYS Department of Transportation 50 Wolf Road Albany, NY 12232</p>	<p>David Smith, Regional Director NYS Department of Transportation, Region 3 State Office Building 333 E. Washington Street Syracuse, NY 13202</p>
<p>Joanne M. Mahoney, Chair New York State Thruway Authority 200 Southern Boulevard P.O. Box 189 Albany, NY 12201-0189</p>	<p>Richard Ball, Commissioner NYS Department of Agriculture &amp; Markets 10B Airline Drive Albany, NY 12205</p>
<p>Richard L. Kauffman, Board Chairman NYS Energy Research and Development Authority 17 Columbia Circle Albany, NY 12203-6399</p>	<p>Alicia Barton, President and Chief Executive Officer NYS Energy Research and Development Authority 17 Columbia Circle Albany, NY 12203-6399</p>
<p>Eric Gertler, Commissioner, President, and CEO Empire State Development Corporation 633 Third Avenue – Floor 37 New York, NY 10017</p>	<p>Vinnie Esposito, Director Finger Lakes Region Empire State Development Corporation 400 Andrews Street, Suite 300 Rochester, NY 14604</p>

<p>Rossana Rosado, Secretary of State  NYS Department of State  One Commerce Plaza  99 Washington Avenue  Albany, NY 12231-0001</p>	<p>Letitia James  NYS Attorney General  State Capital Building  Albany, NY 12224-0341</p>
<p>Howard A. Zucker, Commissioner of Health  NYS Department of Health  Corning Tower  Empire State Plaza,  Albany, NY 12237</p>	<p>RoAnn Destito, Commissioner  NYS Office of General Services  41st Floor, Corning Tower  Empire State Plaza  Albany, NY 12242</p>
<p>John B. Rhodes, Chair,  New York State Board on Electric Generation  Siting and the Environment  Empire State Plaza  Agency Building 3  Albany, NY 12223</p>	<p>David Solimeno  New York State Department of Public  Service  3 Empire State Plaza  Albany, NY 12223</p>
<p>Michael Saviola, Environmental Analyst  NYS Department of Agriculture &amp; Markets  10B Airline Drive  Albany, NY 12235</p>	<p>Sean Moran, Researcher  New York State Laborers' Organizing Fund  668 Wemple Road  Glenmont, NY 12077</p>
<p>Noreena Chaudari  New York State Department of Public Service  3 Empire State Plaza  Albany, NY 12223</p>	<p>Tara Wells, Esq.  NYS Department of Agriculture &amp; Markets  10B Airline Drive  Albany, NY 12205</p>
<p>Kevin Bush, Regional Director  NYS Department of Transportation, Region 4  1530 Jefferson Road  Rochester, NY 14623</p>	

### **FEDERAL AGENCIES**

Ron Kozloqaki, Chief of Programs and Project Management United States Army Corps of Engineers Buffalo District, District Office 1776 Niagara Street Buffalo, NY 14207	David Stilwell, Field Office Supervisor US Fish and Wildlife Service 3817 Luker Road Cortland, NY 13045
National Telecommunications and Information Administration (NTIA) Herbert C. Hoover Building (HCHB) 1401 Constitution Avenue, N.W. Washington, D.C. 20230	Steven Sample, Deputy Director US Department of Defense Siting Clearinghouse 3400 Defense Pentagon, Room 5C646 Washington, D.C. 20301
Jennifer Solomon, Eastern Region Regional Administrator Federal Aviation Administration 1 Aviation Plaza Jamaica, NY 11434	Bob Radliff, Executive Director US Department of Interior, National Park Service – Erie Canalway Heritage Corridor P.O. Box 219 Waterford, NY 12188

### **LEGISLATIVE REPRESENTATIVES**

Charles E. Schumer Senator, State of New York US Senate Leo O'Brien Building 11A Clinton Avenue, Room 420 Albany, NY 12207	Kirsten E. Gillibrand Senator, State of New York US Senate Leo W. O'Brien Building 11A Clinton Avenue, Room 821 Albany, NY 12207
Tom Reed II Representative, 23 <sup>rd</sup> District U.S. House of Representatives 433 Exchange Street Geneva, NY 14456	Brian Kolb Representative, 131 <sup>st</sup> District NYS Assembly 70 Elizabeth Blackwell Street Geneva, NY 14456
Pamela Helming, Senator 54 <sup>th</sup> District, NYS Senate District Office 425 Exchange Street Geneva, NY 14456	Tyler Wolcott, Esq. Read and Laniado, LLP 25 Eagle St. Albany, NY 12207

Michelle Piasecki, Associate Harris Beach PLLC 677 Broadway, Suite 1101 Albany, NY 12207	Sam Laniado, Esq. Read and Laniado, LLP 25 Eagle Street Albany, NY 12207-1901
William Flynn, Partner Harris Beach, PLLC 677 Broadway, Suite 1101 Albany, NY 12207	

### **SCHOOL DISTRICTS**

Terri Bavis, Superintendent Waterloo Central School District 109 Washington Street Waterloo, NY 13165
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### **EMERGENCY RESPONDERS**

W. Timothy Luce, Sheriff Seneca County Sheriff Department 6150 NY-96, Romulus, NY 14541	Mike Reese, Chief Waterloo Volunteer Fire Department PO Box 513 39 East Water Street Waterloo, NY 13165
Melissa Taylor, Emergency Management Director Seneca County Emergency Management Seneca County Office Building 1 DiPronio Drive Waterloo, NY 13165	New York State Police, Troop E Zone 2 Station, Waterloo 853 Waterloo-Geneva Road, Waterloo, NY 13165

<p>John P. Melville, Commissioner  NYS Division of Homeland Security and  Emergency Services  1220 Washington Avenue, State Office  Campus  Building 7A Suite 710  Albany, NY 12242</p>	
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### **ADJACENT MUNICIPALITIES**

<p>Mary Krause, County Administrator  Ontario County  20 Ontario St  Canandaigua, NY 14424</p>	<p>Matthew Hoose, County Clerk  Ontario County  20 Ontario Street  Canandaigua, NY 14424</p>
<p>Ronald Alcock, Mayor  City of Geneva  47 Castle Street  1st Floor, City Hall  Geneva, NY 14456</p>	<p>Lori Guinan, City Clerk  City of Geneva  47 Castle Street  1st Floor, City Hall  Geneva, NY 14456</p>
<p>Cindy Garlick Lorenzetti, Supervisor  Town of Fayette  1439 Yellow Tavern Rd,  Waterloo NY 13165</p>	<p>Nancy Murray, Town Clerk  Town of Fayette  1439 Yellow Tavern Road  Waterloo NY 13165</p>
<p>Norman Teed, Supervisor  Town of Phelps  79 Main Street  Phelps NY 14532</p>	<p>Linda Nieskes, Town Clerk  Town of Phelps  79 Main Street  Phelps NY 14532</p>
<p>Mark Venuti, Supervisor  Town of Geneva  3750 County Road 6  Geneva, NY 14456</p>	<p>Lorrie S. Naegele, Town Clerk  Town of Geneva  3750 County Road 6  Geneva, NY 14456</p>

Gregory Lazzaro, Supervisor Town of Seneca Falls 130 Ovid Street Seneca Falls, NY 13148	Nicaletta Greer, Town Clerk Town of Seneca Falls 130 Ovid Street Seneca Falls, NY 13148
C. Ernest Brownell, Supervisor Town of Junius 655 Dublin Road, Clyde NY 14433	Mary Prosser, Town Clerk Town of Junius 655 Dublin Road, Clyde NY 14433
Andrew Wickham, Supervisor Town of Seneca 3675 Flint Rd Stanley, NY 14561	Kate Silverstrim-Jensen, Town Clerk Town of Seneca 3675 Flint Rd Stanley, NY 14561

### **UTILITIES**

Ave Bie, Board Chair New York Independent System Operator 10 Krey Boulevard Rensselaer, NY 12144	Carl A. Taylor, President New York State Electric and Gas Corporation (NYSEG) 89 East Avenue Rochester, NY 14649
Spectrum 60 Columbus Circle New York, NY 10023	Verizon 1095 Avenue of the Americas, New York, NY 10013

### **PUBLIC INTEREST GROUPS / ADDITIONAL STAKEHOLDERS**

Jeff Shipley, President/CEO Seneca County Chamber of Commerce 1 West Main Street PO Box 350 Waterloo, NY 13165	Ave Bauder, Executive Director Cornell Cooperative Extension, Seneca County Seneca County CCE Offices 308 Main Street Shop Centre Waterloo, NY 13165
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Kathy Mastellar, County Executive Director USDA Farm Service Agency 2041 U.S. Route 20 Seneca Falls, NY 13148	Heath Eisele, District Conservationist USDA Natural Resources Conservation Service, NY West Area 29 Liberty Street, Suite 1 Batavia, NY 14020-3294
Walter Gable, County Historian Seneca County Office Building 1 DiPronio Drive Waterloo, NY 13165	Brandi Rozelle, Library Director Waterloo Library and Historical Society 31 East Williams Street Waterloo, NY 13165
William Boer NextEra Energy Resources, LLC 700 Universe Blvd. Juno Beach, FL 33408	

#### **AIRPORTS / HELIPORTS**

[none identified within Study Area]

#### **HOST AND ADJACENT LANDOWNERS**

89 Packwood Rd Waterloo NY 13165	2662 Serven Rd Waterloo NY 13165
173 Packwood Rd Waterloo NY 13165	2542 Maney Rd Waterloo NY 13165
P.O. box 822 Geneva NY 14456	2662 Serven Rd Waterloo NY 13165
2936 Miller Rd Waterloo NY 13165	2585 Maney Rd Waterloo NY 13165
575 Packwood Rd Waterloo NY 131659611	2662 Serven Rd Waterloo NY 13165
617 Packwood Rd Waterloo NY 13165	2662 Serven Rd Waterloo NY 13165

523 Packwood Rd Waterloo NY 13165	1536 Yellow Tavern Rd Waterloo NY 13165
485 Packwood Rd Waterloo NY 13165	2735 Serven Rd Waterloo NY 13165
1266 Waterloo-Geneva Rd Waterloo NY 13165	2662 Serven Rd Waterloo NY 13165
2536 Maney Rd Waterloo NY 13165	2662 Serven Rd Waterloo NY 13165
2542 Maney Rd Waterloo NY 13165	2662 Serven Rd Waterloo NY 13165
2542 Maney Rd Waterloo NY 13165	2662 Serven Rd Waterloo NY 13165
445 Packwood Rd Waterloo NY 13165	215 Border City Rd Geneva NY 14456
403 Packwood Rd Waterloo NY 13165	2735 Serven Rd Waterloo NY 13165
403 Packwood Rd Waterloo NY 13165	P.O. box 53 Oaks Corners NY 14518
423 Packwood Rd Waterloo NY 13165	P.O. box 53 Oaks Corners NY 14518
423 Packwood Rd Waterloo NY 13165	P.O. box 53 Oaks Corners NY 14518
415 Packwood Rd Waterloo NY 13165	2852 Serven Rd Waterloo NY 13165

403 Packwood Rd Waterloo NY 13165	P.O. box 1099 Geneva NY 14456
377 Packwood Rd Waterloo NY 13165	P.O. box 1099 Geneva NY 14456
2515 Maney Rd Waterloo NY 13165	P.O. box 1099 Geneva NY 14456
2475 Maney Rd Waterloo NY 13165	P.O. Box 161 Hall NY 14463
2263 Burgess Rd Waterloo NY 13165	106 Hillcrest Ave Geneva NY 14456
2394 Maney Rd Waterloo NY 13165	P.O. box 187 Geneva NY 14456
102 Norris Dr Waterloo NY 13165	93 Border City Rd Geneva NY 14456
2515 Pre-Emption St Geneva NY 14456	125 Border City Rd Geneva NY 14456
2551 Pre-Emption St Geneva NY 14456	294 William St Geneva NY 14456
2561 Pre-Emption St Geneva NY 14456	2861 Pre-Emption St Geneva NY 14456
150 Packwood Rd Waterloo NY 13165	2861 Pre-Emption St Geneva NY 14456
173 Packwood Rd Waterloo NY 13165	2815 Pre-Emption St Geneva NY 14456

2560 Serven Rd Waterloo NY 13165	2870 Knight Rd Waterloo NY 13165
234 Packwood Rd Waterloo NY 13165	2799 Pre-Emption St Geneva NY 14456
204 Packwood Rd Waterloo NY 13165	2793 Pre-Emption St Geneva NY 14456
198 Packwood Rd Waterloo NY 13165	2787 Pre-Emption St Waterloo NY 14456
403 Packwood Rd Waterloo NY 13165	608 Wat-Gen Rd Waterloo NY 13165
403 Packwood Rd Waterloo NY 13165	66 Virginia St Waterloo NY 13165
490 Packwood Rd Waterloo NY 13165	625 Wat-Gen Rd Waterloo NY 13165
612 Packwood Rd Waterloo NY 13165	631 Wat-Gen Rd Waterloo NY 13165
618 Packwood Rd Waterloo NY 13165	608 Wat-Gen Rd Waterloo NY 13165
P.O. box 523 Williamson NY 14589	570 Wat-Gen Rd Waterloo NY 13165
631 Wat-Gen Rd Waterloo NY 13165	569 Wat-Gen Rd Waterloo NY 13165
2729 Serven Rd Waterloo NY 13165	569 Wat-Gen Rd Waterloo NY 13165

2618 Serven Rd Waterloo NY 13165	565 Wat-Gen Rd Waterloo NY 13165
2643 Pre-Emption St Geneva NY 14456	6445 Townline Rd Williamson NY 14589
2707 Pre-Emption St Geneva NY 14456	70 Farm View Dr New Gloucester ME 4260
2638 Serven Rd Waterloo NY 13165	526 State Fair Blvd Syracuse NY 13204
304 N Hopkins St Sayre PA 18840	201 Border City Rd Geneva NY 14456
2503 Pre-Emption St Waterloo NY 13165	P.O. box 486 Geneva NY 14456
2546 Serven Rd Waterloo NY 13165	243 Border City Rd Geneva NY 14456
216 Packwood Rd Waterloo NY 13165	267 Border City Rd Geneva NY 14456
41 Sanctuary Ln Geneva NY 14456	271 Border City Rd Geneva NY 14456
33 Sanctuary Ln Geneva NY 14456	277 Border City Rd Geneva NY 14456
2761 Pre-Emption St Geneva NY 14456	P.O. box 834 Geneva NY 14456
2781 Preemption St Geneva NY 14456	292 Border City Rdg Geneva NY 14456

2787 Pre-Emption St Geneva NY 14456	294 Border City Rd Geneva NY 14456
2787 Pre-Emption St Geneva NY 14456	485 Packwood Rd Waterloo NY 13165
2793 Pre-Emption St Geneva NY 14456	131 Williams St Geneva NY 14456
505 Wat-Gen Rd Waterloo NY 13165	1786 Salcman Rd Waterloo NY 13165
2765 Serven Rd Waterloo NY 13165	655 Yale Farm Rd Romulus NY 14541
2745 Serven Rd Waterloo NY 13165	655 Yale Farm Rd Romulus NY 14541
505 Wat-Gen Rd Waterloo NY 13165	142 Newmiller Rd Lyons NY 14489
2852 Serven Rd Waterloo NY 13165	2750 Pre Emption St Geneva NY 14456

**AREA RESIDENTS AND DOCUMENT REPOSITORIES**

Town of Waterloo Municipal Offices 66 Virginia Street Waterloo, NY 13165	Geneva Public Library 244 Main Street Geneva, NY 14456
Waterloo Library and Historical Society 31 East Williams Street Waterloo, NY 13165	



## United States Department of the Interior

FISH AND WILDLIFE SERVICE  
New York Ecological Services Field Office

3817 Luker Road  
Cortland, NY 13045-9385

Phone: (607) 753-9334 Fax: (607) 753-9699

<http://www.fws.gov/northeast/nyfo/es/section7.htm>



In Reply Refer To:

October 03, 2019

Consultation Code: 05E1NY00-2019-SLI-1706

Event Code: 05E1NY00-2020-E-00115

Project Name: Trelina Solar Energy Center Project

Subject: Updated list of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531 *et seq.*). This list can also be used to determine whether listed species may be present for projects without federal agency involvement. New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list.

Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the ESA, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC site at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list. If listed, proposed, or candidate species were identified as potentially occurring in the project area, coordination with our office is encouraged. Information on the steps involved with assessing potential impacts from projects can be found at: <http://www.fws.gov/northeast/nyfo/es/section7.htm>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (<http://www.fws.gov/windenergy/>

[eagle\\_guidance.html](#)). Additionally, wind energy projects should follow the Services wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the ESA. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List



# Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

**New York Ecological Services Field Office**

3817 Luker Road

Cortland, NY 13045-9385

(607) 753-9334

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## Endangered Species Act Species

There is a total of 2 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries<sup>1</sup>, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

- 
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

## Mammals

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/9045">https://ecos.fws.gov/ecp/species/9045</a>	Threatened

## Reptiles

NAME	STATUS
Bog Turtle <i>Clemmys muhlenbergii</i> Population: Wherever found, except GA, NC, SC, TN, VA No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/6962">https://ecos.fws.gov/ecp/species/6962</a> Species survey guidelines: <a href="https://ecos.fws.gov/ipac/guideline/survey/population/182/office/52410.pdf">https://ecos.fws.gov/ipac/guideline/survey/population/182/office/52410.pdf</a> Habitat assessment guidelines: <a href="https://ecos.fws.gov/ipac/guideline/assessment/population/182/office/52410.pdf">https://ecos.fws.gov/ipac/guideline/assessment/population/182/office/52410.pdf</a>	Threatened

## Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

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# Grassland Breeding Bird Survey Study Plan

May 14, 2019

## Trelina Solar Energy Center

### Prepared For:

Trelina Solar Energy Center, LLC  
700 Universe Blvd  
Juno Beach, FL 33408

### Prepared By:

TRC  
10 Maxwell Drive, Ste 200  
Clifton Park, NY 12065

## TABLE OF CONTENTS

<b>1.0</b>	<b>INTRODUCTION.....</b>	<b>1</b>
1.1	Project Description .....	1
<b>2.0</b>	<b>STUDY PROTOCOL.....</b>	<b>1</b>
2.1	Survey Site Selection .....	1
2.2	Number and Timing of Surveys .....	2
2.3	Surveyor Preparedness .....	2
2.4	Weather Observations .....	2
2.5	Conducting Surveys .....	2
<b>3.0</b>	<b>DATA MANAGEMENT AND RECORDKEEPING .....</b>	<b>3</b>
3.1	Recording Data .....	3
3.2	Field Quality Assurance and Quality Control .....	4
<b>4.0</b>	<b>REPORTING.....</b>	<b>4</b>

## APPENDICES

Appendix A. NYSDEC Survey Protocol for State-listed Breeding Grassland Bird Species

## 1.0 Introduction

### 1.1 Project Description

Trelina Solar Energy Center, LLC proposes to construct the Trelina Energy Center Project (Project), formerly known as North Light Energy Center, in the Town of Waterloo, Seneca County, New York (Figure 1). This Project is proposed to have a maximum generating capability of 80 MW of power located on land leased or purchased from owners of private property (Figure 1). Proposed components include commercial-scale solar arrays, access roads, buried (and possibly overhead) electric collection lines, a Project collection substation, and electrical interconnection facilities.

Trelina Energy Center, LLC plans to submit an application to the NYS Board on Electric Generation Siting and the Environment in pursuit of a Certificate of Environmental Compatibility and Public Need to construct the Project under Article 10 of the Public Service Law (PSL).

The purpose of this grassland breeding bird survey is to determine the presence and site use by state-listed threatened or endangered and rare grassland bird species during the breeding season. Rare, threatened, and endangered (RTE) and special concern (SC) grassland nesting birds in New York State include: northern harrier (T), upland sandpiper (T), short-eared owl (E), Henslow's sparrow (T), sedge wren (T), grasshopper sparrow (SC), vesper sparrow (SC), and horned lark (SC).

## 2.0 Study Protocol

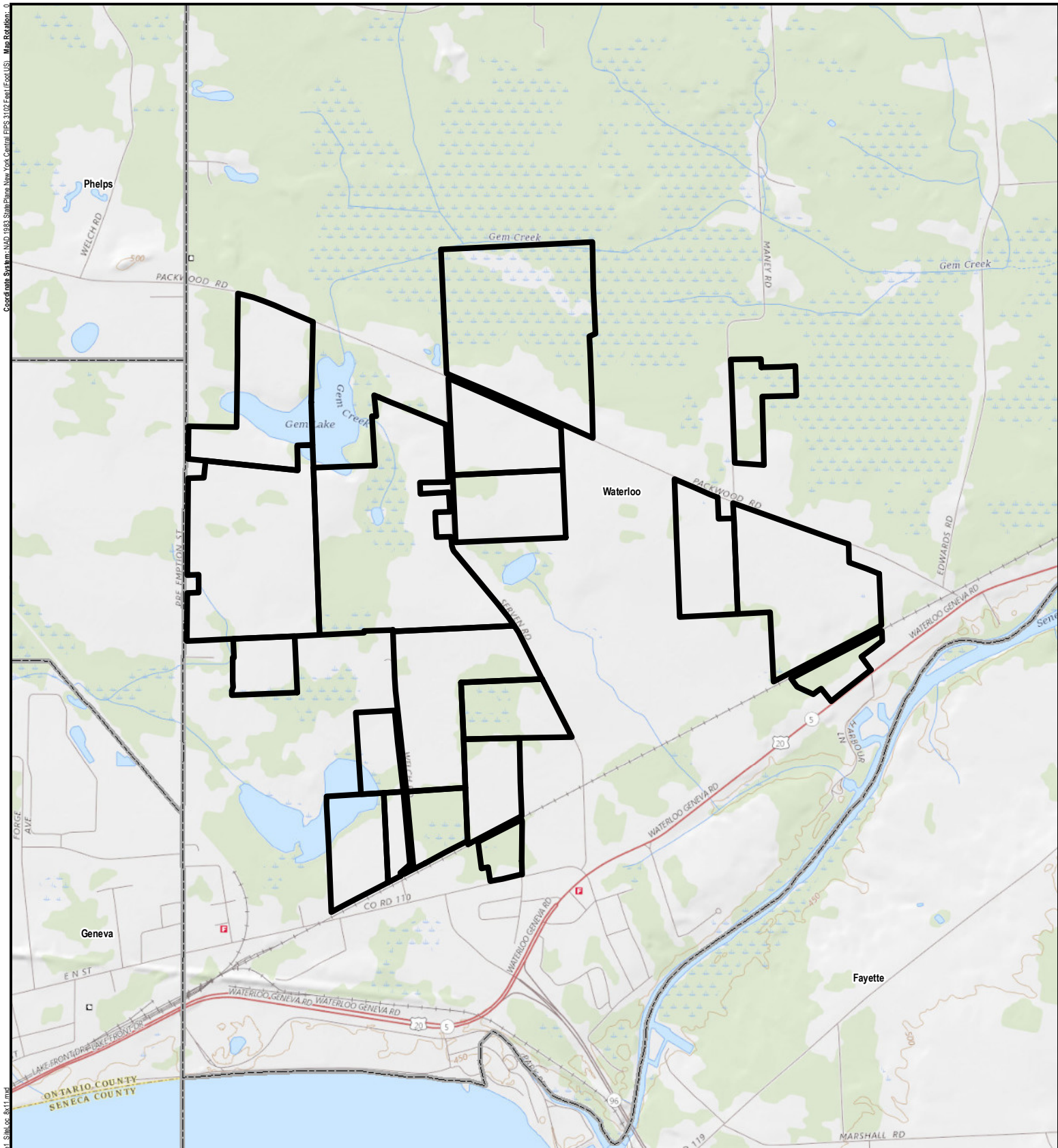
### 2.1 Survey Site Selection

Survey locations were selected based on the 2015 *Draft Survey Protocol for State-listed Breeding Grassland Bird Species* prepared by the New York State Department of Environmental Conservation (NYSDEC). Based on this protocol, suitable grassland sites are areas larger than 12 acres that are dominated by grasses and forbs. Multiple grassland patches may exist in any given area separated by obstructions (e.g., forests, hedgerows, large roads, and developed areas).

Point count surveys are the accepted methodology and each point will be placed in suitable grassland habitat at least 100 meters from obstructions. Each point count location will be a circular plot survey centered on the observation point such that the survey radius from each point is 100 meters. The minimum distance between survey points is 250 meters. Geographic information systems (GIS) tools will be used to juxtapose survey points and buffers over open fields offering grassland habitat in a manner that maximizes the number of points per sampling area.

Eighteen stationary survey points have been identified and are shown in Figure 2. It should be noted that the stationary survey point locations have been determined based upon reviews of aerial photography and a preliminary driving survey of the Project Area to determine potential grassland habitat. Field verification of actual agricultural land cover (i.e. grassland versus row crops) will be documented during the surveys and survey locations will be eliminated if grassland habitat is not present.

Coordinate System: NAD 1983 StatePlane New York Central FIPS 3102 Feet (Foot US) Map Resolution: 0



**LEGEND**

- TOWN BOUNDARY
- PROPOSED PROJECT PARCELS

1" = 2,000'

0 750 1,500 Feet

PROJECT: TRELINA SOLAR ENERGY CENTER, LLC  
TRELINA SOLAR ENERGY CENTER  
WATERLOO, SENECA COUNTY, NY

TITLE: SITE LOCATION

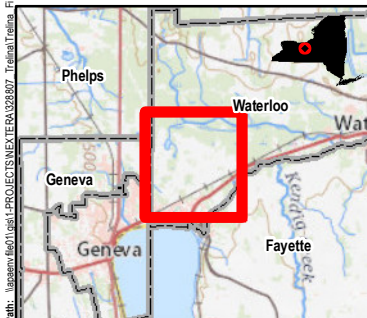
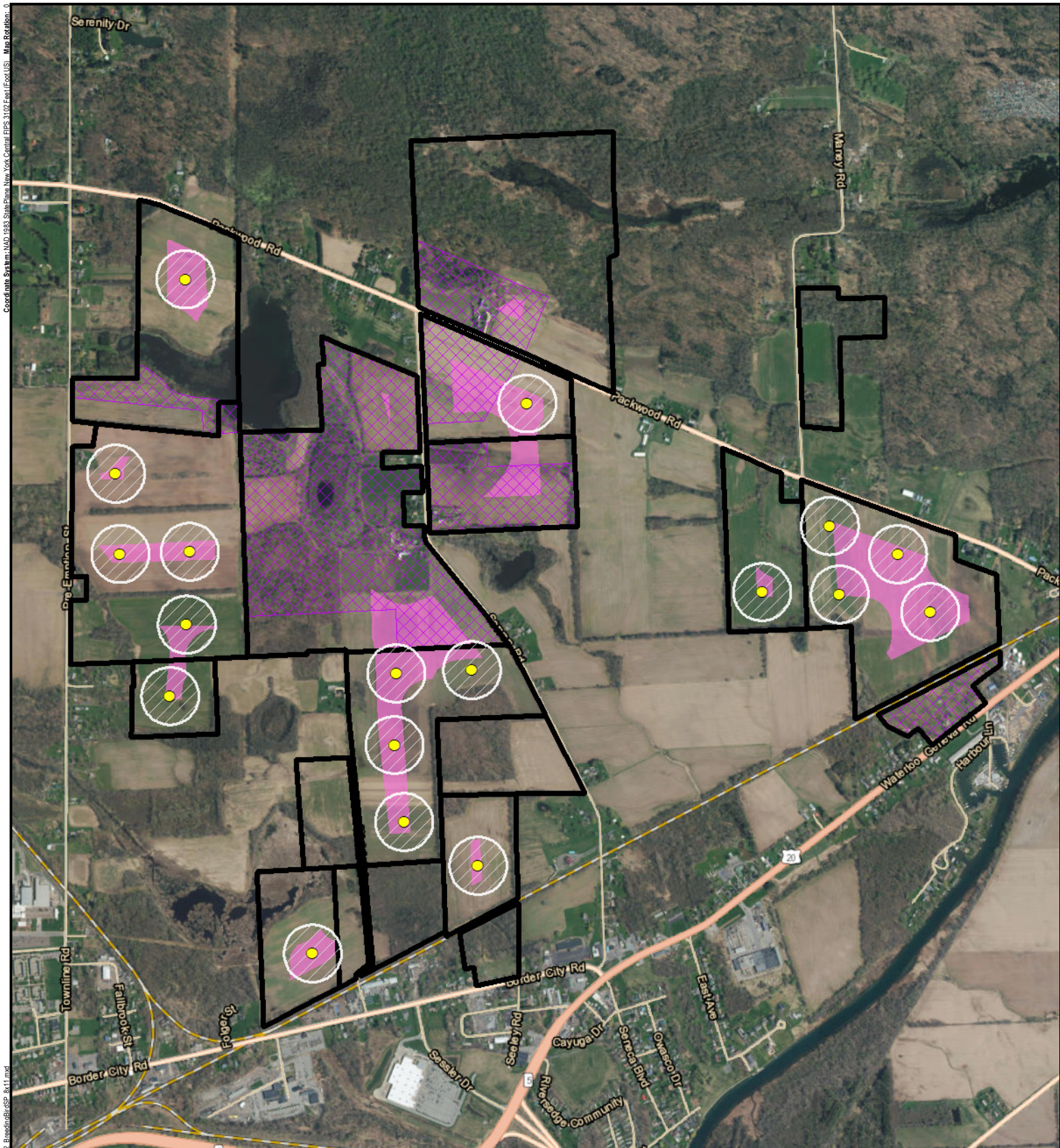
DRAWN BY: A. KAILAS	PROJ NO.: 328807
CHECKED BY: J. DICKEY	
APPROVED BY: J. DICKEY	
DATE: MAY 2019	

**FIGURE 1**

**TRC**  
10 MAXWELL DRIVE  
CLIFTON PARK, NY 12065



Coordinate System: NAD 1983 StatePlane New York Central FIPS 3102 Feet (Foot US) Map Rotation: 0



**LEGEND**

- PROPOSED SURVEY LOCATIONS
- 100 METER BUFFER
- ▨ EXCLUSION AREA
- OPEN GRASSLAND HABITAT BEYOND THE 100 METER OBSTRUCTION BUFFER
- ▭ PROPOSED PROJECT PARCELS

1" = 1,500'

0 750 1,500 Feet

PROJECT: TRELINA SOLAR ENERGY CENTER, LLC  
TRELINA SOLAR ENERGY CENTER  
WATERLOO, SENECA COUNTY, NY

TITLE: PROSPECTIVE SURVEY LOCATIONS  
SPRING BREEDING BIRD SURVEY

DRAWN BY: A. KAILAS PROJ NO.: 328807  
CHECKED BY: J. DICKEY  
APPROVED BY: J. DICKEY  
DATE: MAY 2019

**FIGURE 2**

**TRC**  
10 MAXWELL DRIVE  
CLIFTON PARK, NY 12065



## **2.2 Number and Timing of Surveys**

The survey period for grassland breeding birds is from May 20<sup>th</sup> to July 20<sup>th</sup>. Per the draft protocol, surveys are planned to span the earliest and latest possible dates. There will be one survey period in late May, two in June, and one in July. The order of surveys will be rotated in each survey period such that each station will be surveyed in different time periods within the survey window over the course of the study. At least one survey will be completed before haying or mowing is done at the site, if possible.

During each survey period, each station will be surveyed once in the morning. Surveys will be completed in the morning starting a half hour before sunrise, when feasible, until no later than 10:30am. No station will be surveyed more than once in a 7-day period.

Meander surveys will be conducted while walking between point count stations during each survey period to record species incidentally observed outside of the 100-meter point buffer.

## **2.3 Surveyor Preparedness**

Field biologists with experience in conducting standard point-count surveys, including identification of birds by call, will complete the surveys. In addition, surveyors will receive onsite training to familiarize themselves with the stationary point locations, route between survey patches, and the Project Area as a whole. This training will also note the importance of maintaining the acclimation period between survey points. Biologists will be outfitted with Nikon Monarch 7 10x42 or binoculars of similar or higher quality.

## **2.4 Weather Observations**

Weather conditions will be noted at the beginning of each survey and whenever they change during the surveys. Parameters that will be recorded are:

- wind speed and direction,
- temperature,
- relative humidity,
- barometric pressure,
- percent cloud cover,
- visibility (approximate distance in km), and
- precipitation.

Surveys will not be conducted in adverse weather conditions (e.g. winds >10-12 mph, heavy rain or fog, etc.)

## **2.5 Conducting Surveys**

Point counts will be conducted for five minutes at each survey point during which birds detected by sight and sound will be recorded. Point counts will begin after waiting 2 minutes in silence after arriving at the point to allow birds to recover from any disturbance (acclimation period). Birds detected within approximately 100 meters of the point will be recorded, as well as any birds

detected beyond 100 meters from the point during the five-minute count. Birds detected beyond 100 meters from the point and during meander surveys while walking between the points will be documented in a separate column on field data sheets.

## **3.0 Data Management and Recordkeeping**

### **3.1 Recording Data**

Detailed weather and bird observation data will be collected during each survey. All data will be entered into the cloud-based data management program Fulcrum®, which can be accessed by smart phone or tablet.

At each survey point, information to be recorded will include:

- date,
- observer name(s),
- site name,
- patch name,
- point number,
- start and end time of observation period,
- survey period, and
- weather information.

During the 5-minute point count, the following data will be recorded:

- species identification,
- number of individuals per species,
- mode of detection (song, call, visual),
- behavior (nesting, flying, perching, singing, etc.), and
- “highest” behavior code for each species.

Field biologists will also record any species heard or seen while doing meander surveys or walking between points and flyover species.

Site description information will also be recorded on a digital data sheet after completion of the point counts, including:

- patch size,
- habitat type,
- distance from a trail or road,
- distance from hedgerow or woodline,
- vegetation measurements within 25 meters of the survey point:
  - percent cover of each vegetation type (grass, forb, woody, etc.),
  - dominant grass and forb,

- percent bare,
  - average vegetation height,
  - litter depth,
  - nearest shrub above vegetation height,
- presence of invasive species, and
- recent management practices.

Vegetation measurements will be made using a robel pole for average height. Density will be measured from four cardinal directions and then averaged.

### **3.2 Field Quality Assurance and Quality Control**

Digital data sheets will be reviewed for completeness and accuracy prior to leaving the survey site. Any discrepancies noted will be resolved at that time.

## **4.0 Reporting**

A final field report will be prepared following completion of the four field events. The report will include:

- data sheets,
- maps with an aerial photograph basemap, including shapefiles,
- Summaries of all observations of grassland birds (and any other state-listed species observed) including species location on the landscape and movements, and
- a conclusion regarding whether more comprehensive studies may be necessary to assess the potential for the Project to negatively affect endangered or threatened grassland nesting species.

**Attachment A: NYSDEC Draft Survey Protocol for State-listed  
Breeding Grassland Bird Species**

**New York State Department of Environmental Conservation**  
**Survey Protocol for State-listed Breeding Grassland Bird Species**  
**DRAFT- 2015**

These protocols describe requirements for determining presence and site use by state-listed threatened/endangered and rare grassland bird species during the breeding season as part of the NYSDEC permit review process for a project application. Rare, threatened, and endangered (RTE) and special concern (SC) grassland nesting birds in New York State include: Northern Harrier (T), Upland Sandpiper (T), Short-Eared Owl (E), Henslow's Sparrow (T), Sedge Wren (T), Grasshopper Sparrow (SC), Vesper Sparrow (SC), and Horned Lark (SC). Habitat characteristics of project sites will also be recorded. Information obtained from these surveys will be considered in determining the possible need for additional comprehensive studies, regulatory review and, if necessary, avoidance, minimization, and/or mitigation strategies pursuant to 6 NYCRR Part 182.9.

### **Survey Periods**

Surveys should be conducted during the breeding season from 20 May through 20 July. The survey protocols are geared toward the **optimal** window for surveys for all RTE grassland species that might be expected, while the regulatory guidelines are intended to span the earliest through latest dates of possible breeding across all RTE grassland species. At a minimum, there will be one survey period in late May, two in June, and one in July. At least one survey period should be completed before any haying or mowing is done at the site. Additional surveys may be required in late April or early May if breeding Short-Eared Owls and/or Northern Harrier are to be targeted. During each survey period, the study area will be surveyed once in the morning. In addition, if the project review indicated the potential for Henslow's Sparrow to be on the site, an evening survey should also be done during each survey period.

### **Establishing Survey Points**

Point count surveys will be the accepted methodology, and all points will be placed in suitable grassland habitat. Suitable grassland sites are areas ("patches") larger than 12 acres (approximately 5 hectares) that are dominated by grasses and forbs. There may be multiple grassland patches at each site separated by obstructions such as forests, hedgerows, large roads, and developed areas. Sampling areas within patches will be defined by outlining the section of each grassland patch that is 100 meters from obstructions as mentioned above.

Each point count will be a circular plot survey centered on the observation point. Each point will have a 100-meter radius and the minimum distance between survey point centers in all directions will be 250 meters. The size of the grassland sampling area determines the number of points that are established. Survey points are placed to obtain the maximum number of points per sampling area. The initial placement of the circles/points does not need to be random, although, they need to be systematically located

to cover the entire sampling area. As many points at each site as possible will be surveyed, but in larger grassland patches the actual points to survey will be randomly selected from all possible points in the sampling area. At least 1 point per 25 acres (approximately 10 hectares) should be surveyed. The surveys should also include qualitative meander surveys. Meander surveys should be done between points and will help to ensure that the most suitable habitats for RTE grassland birds have been adequately covered.

### **Timing of Surveys**

Morning surveys will be conducted starting at a half hour before sunrise when feasible until no later than 10:30am. Evening surveys will be conducted one hour before sunset until two hours after sunset. At least seven days must pass between surveys. The order in which points are surveyed will be reversed during each count, so that the same point is not always surveyed during the same time period. Surveys will not be conducted during inclement weather, including precipitation, fog, or strong winds (i.e. greater than 10-12mph).

### **Conducting Surveys**

Standard point counts are to be conducted for five minutes after an initial 1-2 minutes of silence after arriving at the point to allow birds to recover from any disturbance. All birds observed within approximately 100 meters of points will be recorded, and birds observed beyond 100 meters from the point and during meander surveys (while walking between points) will be recorded in a separate column on the data sheet.

### **Recording Data** (sample data sheet attached)

Data recorded for each survey point will include: date; observer name(s); site name; patch name; point number; start and end time of observation period; survey period; whether an evening survey or not, and weather information (including temperature, wind speed and direction, precipitation and cloud cover). During the five minute point count, species identification, number of individuals per species (<5, 6-10, or > 10, but if possible actual number), behavior (nesting, flying, perching, singing, etc.) and the "highest" behavior code will be recorded for each species. Also recorded will be species heard or seen while doing meander surveys or walking between points and flyover species.

Site description information will be collected on a separate data sheet after the point counts are complete during each survey period and will include information such as: patch size, habitat type, distance from a trail or road, distance from hedgerow or wood line and vegetation measurements within 25 meters of the survey point.

Vegetation measurements are as follows: Percent cover of each vegetation type (i.e. grass, forb, woody, etc.); dominant grass and forb; percent bare; average vegetation height; litter depth; and nearest shrub above vegetation height. A robel pole should be used for average height and density measured from four cardinal directions and then averaged. The

presence of invasive species, and any recent management practices should also be recorded.

### **Reporting Requirements**

A detailed, site-specific work plan, including survey point locations should be developed and submitted to NYSDEC for review and written approval prior to the start of field work. A final report should be submitted to NYSDEC at the conclusion of each year of surveys. Final reports should include: data sheets; maps (ideally recent aerial photographs); summaries of all observations of grassland birds (and any other state-listed species observed); and a conclusion regarding whether more comprehensive studies may be necessary to assess the potential for the project to negatively affect endangered or threatened grassland nesting species.