

Visual Impact Assessment

Matter No. 23-00034

January 2024 Revised August 2024

MILL POINT SOLAR I PROJECT

Town of Glen, New York

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ATTACHMENTS

Revised Attachment 1: Site Plan*

Attachment 2: Facility Photolog (Attachment to Appendix 8-1)

Revised Attachment 3: Photo-Simulations and Line of Sight Profiles

Attachment 4: Outreach Correspondence (Attachment to Appendix 8-1)

Revised Attachment 5: Photo-Simulation Visual Impact Rating

Revised Attachment 6: Visual Impact Minimization and Mitigation Plan

Revised Plan 6A. Landscape Plan*

Revised Plan 6B. Substation and POI Switchyard Plan & Profile Drawings and Lighting

Plan*

Revised Plan 6C. Revised Glare Analysis

- Site Plan Revised Exhibit 5, Revised Appendix 5-1
- Landscape Plan Revised Exhibit 5, Revised Appendix 5-2
- Substation and POI Switchyard Plan & Profile Drawings and Lighting Plan Revised Exhibit 5, Revised Appendix 5-3

^{*} An abbreviated version of this plan has been provided. Information not critical to the assessment of visual impacts has been removed. Complete plans are provided in the 94-c application in the following locations:



ACRONYM LIST

3D Three-Dimensional

AADT Annual Average Daily Traffic

AC Alternating Current ASL Above Sea Level

BLM Bureau of Land Management
CAD Computer-aided design
CPD Census Designated Places

DC Direct Current

DOE Department of Energy

FAA Federal Aviation Administration

Gen-Tie Generation Tie

GIS Geographic Information Systems

GNIS Geographic Names Information System

HDD Horizontal Directional Drilling

kV Kilovolt

LiDAR Light Detection and Ranging

LOS Line-of-Sight

LSZ Landscape Similarity Zones

MPH Miles Per Hour MW Megawatt

NESC National Electrical Safety Code NLCD National Land Cover Dataset

NPS National Park Service

NRHP National Register of Historic Places

NRI Nationwide Rivers Inventory

NYCRR New York Codes, Rules and Regulations

NY5 New York State Highway 5

NYS New York State

NYSDEC New York State Department of Environmental Conservation

NYSDOT New York State Department of Transportation

O&M Operations and Maintenance

OPRHP Office of Parks, Recreation and Historic Preservation

ORES Office of Renewable Energy Siting

OSHA Occupational Safety and Health Administration

PEJA Potential Environment Justice Area
PEP Population Estimates Program

POI Point of Interconnection

PV Photovoltaic R-R Rural/Residential

SGHAT Solar Glare Hazard Analysis Tool SHPO State Historic Preservation Office SRHP State Register of Historic Places

USDA United States Department of Agriculture USDOI United States Department of the Interior

USGS United States Geological Survey

VIA Visual Impact Assessment (see Appendix 8-1)
VIMMP Visual Impact Minimization and Mitigation Plan

VP Viewpoint

VSA Visual Study Area



1.0 INTRODUCTION

ConnectGen Montgomery County LLC, (mentioned throughout the application as the "Applicant", or "ConnectGen"), is proposing to develop and construct the Mill Point Solar I Project (Facility or Project), a proposed 250 megawatt (MW) photovoltaic (PV) utility-scale solar facility located in the Town of Glen, Montgomery County, New York (see Revised Attachment 1, Site Plan, and Revised Figure 1, Site Location Map). Pursuant to Chapter XVIII Title 19 of New York Codes, Rules and Regulations (NYCRR) Part 900 (Subparts 900-1 – 900-15) (Section 94-c), the Applicant is submitting an application to the Office of Renewable Energy Siting (ORES) for a permit. TRC has prepared herein a Visual Impact Assessment (VIA) of the Facility in accordance with the regulatory standards of Exhibit 8 in Section 94-c. This VIA was prepared to facilitate a comprehensive review concerning the potential extent and significance of visual change associated with the proposed Facility. The VIA as presented herein has been amended to reflect the new design and all sound walls, as necessary, based on final Exhibit 5 drawings.

1.1 Regulatory Requirement and Methodology

As mentioned, the VIA herein was prepared to comply with the requirements of Exhibit 8 of 19 NYCRR Section 900.2.9 to assess the extent and significance of Facility visibility. The established framework for developing the VIA includes, but is not limited to, the identification of visually sensitive resources, visibility viewshed mapping, photographic simulations (also known as "visual simulations", "photographic overlaps", or "simulated views"; referred to herein as "photosimulations" or "simulations") and proposed visual mitigation. Within the context of the Exhibit 8 requirements, this VIA shall address the following criteria:

- The character and visual quality of the existing landscape,
- The visibility of the facility (aboveground elements),
- The appearance of the facility (photo-simulations) from key locations,
- The nature and degree of visual change resulting from construction and operation of the Facility,
- Identification of aesthetic resources, as well as those anticipated to experience Facility visibility,
- Assessment of the related operational effects of the facility, and
- Consistency review in the assessment of visual impacts per the requirements of adopted local laws or ordinances.

By addressing the above requirements, the VIA provides both a quantitative and qualitative assessment. The analyses, methodologies, and conclusions of the VIA collectively provide a thorough investigation of potential Facility visibility, presenting agencies and the public with an understanding of potential visual impact and the relative significance or insignificance of visual impact. The visual study area (VSA) is established as a two-mile radius around the fence perimeter of the proposed Facility in accordance with 19 NYCRR Section 900.2.9.



1.2 Consistency Review for the Assessment of Visual Impacts Pursuant to the Requirements of Adopted Local Laws or Ordinances

Section 94-c Regulations supplant local procedural requirements, such that the Applicant is not required to obtain a special use permit for the Facility from the town, and the Facility is not subject to planning board review. However, the Facility has been designed to comply with substantive local requirements to the maximum extent practicable. Waivers that have been requested from ORES of substantive local requirements are discussed further in Revised Exhibit 24: Local Laws and Ordinances.

On May 9, 2023, the Applicant consulted with Town of Glen officials and provided information required by Section 900-1.3(a) of the 94-c Regulations. During the meeting, the Applicant provided the Town with a list of the applicable local ordinances, laws, resolutions, regulations, standards, and other requirements of a substantive nature required for the construction and operation of the Facility. The Town of Glen has not indicated to the Applicant that there are any other applicable laws or substantive requirements applicable to visual impacts other than those identified below.

The Applicant also met with the Montgomery County Executive on April 8, 2021 and May 19, 2023 to discuss the Facility and provide the County with information regarding the Facility and its benefits.

In addition to consulting with the Town of Glen and Montgomery County, several community meetings have been held throughout the pre-application phase of the Project as required in Section 900-1.3(b) of the Section 94-c Regulations. Community members were invited to attend the virtual community meeting for the Project on April 14, 2021, and in-person meetings were held on August 11, 2021, November 17, 2021, and May 9 and 10, 2023.

In 2022, the Town of Glen amended their solar laws and enacted the Local Law No. 5 of 2022, also known as the "Solar Energy Facilities Law of the Town of Glen".

The Town of Glen has a Land Use Management Ordinance¹ (2006) with established districts (Article III, Section 3.01) of rural/residential, hamlet, commercial, and industrial business park. These districts are bound to and defined on the map located on the Town of Glen's website entitled, "Zoning Map Town of Glen" (Town of Glen, NY, n.d.). According to the Town of Glen Zoning Map, the entirety of the Facility is sited within the Rural/Residential (R-R) district (see Revised Figure 3-5 of Revised Exhibit 3). Pursuant to Local Law No. 5 of 2022, large scale (utility) solar energy systems are prohibited in the Hamlet District but are allowed in the R-R and Industrial and Commercial Districts. Facility components have been sited wholly outside of the Hamlet of Glen, in accordance with the Town's 2022 Solar Law, as illustrated on Revised Figure 4-1 of Revised Exhibit 4. Several Facility Site parcels overlap with the Hamlet of Glen (Town of Glen Hamlet District), but no Facility components have been sited within the Hamlet of Glen. The

¹ https://www.co.montgomery.ny.us/web/municipal/glen/documents/LandUseManagementOrdinance.pdf



location of the Facility in relation to school district boundaries is illustrated on Figure 3-2 of Revised Exhibit 3.

19 NYCRRR Section 900-2.9(4)(v) requires an assessment of visual impacts pursuant to the requirements of adopted local laws or ordinances. TRC identified the following local design and siting requirements applicable to the assessment of visual impacts per Local Law No. 5 of 2022:

 Section 4(a)(1). "All solar collectors and related equipment shall be placed and arranged such that reflected solar radiation or glare shall not be directed onto adjacent properties or public roadways. A glare study shall be performed to demonstrate that the solar facilities will comply with this requirement."

<u>1.a Response:</u> A Revised Glare Analysis has been conducted to evaluate the potential effects of solar array glint and glare (see Revised Attachment 6, Revised Plan 6C, Revised Glare Analysis). According to the results of the Revised Glare Analysis, residences and roadways in vicinity to the Facility will not be impacted (please see Section 11.10, Glare for Solar Facilities). Per 19 NYCRRR Section 900.2.9, "solar glare exposure at any non-participating residence, airport or public roadway will be avoided or minimized, and will not result in complaints, impede traffic movements or create safety hazards". The Applicant minimized solar glare to the maximum extent practicable such that glare will be avoided or minimized, and is not anticipated to result in complaints, impede traffic, nor create safety hazards.

According to the Town of Glen Local Law No. 5 of 2022, the Facility is categorized as a Large Scale (Utility) solar energy system. Under Section 5, Part 7 of the Town of Glen Local Law No. 5 of 2022, several visual performance requirements are provided as follows:

- 2. Section 5 (7)(b) "A visual assessment report with simulated views of the post construction conditions, including the proposed landscaping plan, shall be submitted to the Planning Board. The visual assessment will use computer modeling and photography showing existing conditions to thoroughly assess the visibility of the solar array from key viewpoints which will be identified by the Planning Board, taking into account existing tree lines, surrounding topography, and proposed elevations. The visual assessment report shall be completed in accordance with the New York State Department of Environmental Conservation (NYSDEC) guidance on visual impact assessment pursuant to SEQRA."
- <u>2.a Response:</u> The requirements of Section 94-c regarding photo-simulations have been completed with proposed landscaping and are accessible in Revised Attachment 3. The photo-simulation methodology is provisioned in Section 7.3.1, and a discussion of the photo-simulations is available in Section 10.2.1.

On April 20th, 2023, a second engagement with visual stakeholders was conducted (see Section 6.0). This outreach consisted of requests to secure local stakeholder recommendations for candidate photo-simulations (please see Attachment 4 for stakeholder correspondence).



The visual impact assessment prepared herein conforms to the Section 94-c regulations which addresses and exceeds the NYSDEC guidance on visual impact assessments pursuant to SEQRA.

- 3. Section 5 (7)(c). "A complete Landscaping and Maintenance Plan will be required. Landscaping, screening and/or earth berming must be proposed to minimize the potential visual impacts associated with the utility-scale solar collector systems and its accessory buildings, structures and/or equipment. All landscaping, screening and/or earth berming must be maintained throughout the life of the project..."
- <u>3.a Response:</u> In accordance with the requirements of 19 NYCRRR Section 900.2.9, a landscape plan has been developed to minimize the potential visual impact associated with the solar collector systems, accessory buildings, structures and/or equipment to the greatest practicable extent (see Revised Attachment 6, Revised Plan 6A, Landscape Plan). Visual impact minimization strategies have been incorporated and are found in the Visual Impact Minimization and Mitigation Plan (VIMMP); please refer to Section 11.11, Planting Plan.
- 4. Section 5 (9). "Lighting A lighting plan shall be required. No large scale (utility) energy systems shall be artificially lit unless otherwise required by a federal or State laws, or regulations. Exterior lighting may be approved at the discretion of the Planning Board only where the Planning Board determines such lighting is appropriate for safety and security purposes."
- <u>4.a Response:</u> Please refer to the completed Substation and POI Switchyard Plan & Profile Drawings and Lighting Plan found Revised Plan 6B, Revised Attachment 6, as summarized in Section 11.13, Lighting Plan, below.
- 5. Section 5(7)(a). "Large Scale (Utility) solar energy systems shall be sited, to the maximum extent practicable, to ensure that the solar array is not visible to surrounding non-participating property owners or those who pass by the array on public rights of way. Solar facilities, including any proposed off-site infrastructure, shall be located & screened to avoid or minimize visual impacts as viewed from:
 - Publicly dedicated parkland, roads, highways and rights of way (e.g., rail trails and public hiking paths)
 - Existing non-participating residential dwellings located on adjacent or contiguous parcels, including those on the opposite side of any public rights of way."

<u>5.a Response</u>: The Applicant has sited the Facility to the maximum extent practicable to ensure that solar arrays are not visible to surrounding non-participating property owners and travelers passing through the public rights of way. In order to minimize the scale, magnitude, and appearance of the solar arrays, setback distances were applied to the solar arrays as required in the Section 94-c regulations (250 feet from non-participating occupied residences, 100 feet from non-participating residential property lines, and 50 feet from the center line of public roads and non-residential, non-participating property lines). In addition to setback distance, the Facility has been sited away from populated communities. The Applicant has also proposed a Landscape



Plan (see Appendix 5-2 of Revised Exhibit 5; see Revised Plan 6A, Revised Attachment 6, Landscape Plan) with substantial amount of landscaping (approximately 17 miles of plantings consisting of 2,277 deciduous trees, 4,254 evergreen trees, and 9,240 deciduous shrubs) as well as approximately 29,065 linear feet of natural grass seeding planned for accommodating wildlife, pollinators, and songbirds. As shown in the Landscape Plan, proposed plantings are sited around all solar arrays where:

- 1. Existing vegetation is unavailable to screen the solar arrays from public vantage points near the Facility; and
- 2. Where adjacent non-participating residential dwellings may have views of the solar arrays.

6. Section 5(12) "Glare and heat – The applicant shall demonstrate that any glare or heat to be produced by the solar project does not have a significant adverse impact on neighboring properties or roadways by providing a glare analysis that is acceptable to the Planning Board."

<u>6.a Response:</u> A Glare Analysis was performed for the Facility in conformity with Section 900-2.9 (a)(9) of Section 94-c. The results of this analysis conclude that no glint and glare impacts occur as a result of the proposed Facility. Please see Section 11.10, Glare for Solar Facilities, below and Revised Plan 6C, Revised Attachment 6, Revised Glare Analysis, for more detailed information regarding the results and associated methodology used in the analysis.

In response to heat produced by the solar project, unlike roofs or roads, solar panels are designed to absorb energy and convert it into electricity. Due to the design and function of solar panels, the likelihood of sustained ambient temperature increase is very low. A heat island-related study was performed by academic staff from the University of Maryland at experimental sites within the boundaries of the University of Arizona Science and Technology Park Solar Zone, a semiarid desert site. The study found that a solar project in a semiarid setting without much vegetation may temporarily heat up ambient air by a few degrees, although the heat dissipates within a few feet above and 100 feet away from the project facilities (Barron-Gafford et al., 2016). In a follow up interview, the study's lead author stated that there could be significant mitigation potential in planting native grasses in and around the solar project area, even potentially creating a cooler environment. He further stated that the study's findings did not suggest any reason to move away from future solar project development, citing that the reach of the heat island effect is too small to affect local homes (Diana A. N., 2016).

New York is located in a temperate climate zone, the characteristics of which vary greatly from those of a semiarid environment. The Mill Point Solar Project is being designed to allow placement of access roads between solar fields, the planting of native vegetation in the project area, and the installation of vegetative buffers, all of which will negate any slight increase in ambient temperature.



7. Section 4(a)(6) "The character and appearance of the proposed project shall be in general harmony with the character and appearance of the surrounding neighborhood."

7.a Response: Several mitigation measures are incorporated to harmonize the character and appearance of the proposed Facility with the surrounding landscape which are outlined below. Please see Section 11.0, VIMMP, below for more detailed information regarding mitigation measures used to minimize, mitigate, and harmonize the appearance of the Facility within the existing rural/agricultural landscape.

- With the utilization of setback distances, solar arrays are positioned away from public rights-of-way and non-participating occupied residences to reduce the perceived scale and appearance of the Facility and provide a visual buffer of open space for the retainment of rural agricultural character and potential agricultural uses.
- Agricultural fencing is proposed around the solar arrays in lieu of chain link fencing to contribute to the rural/agricultural character of the local landscape.
- Proposed landscaping consisting of native evergreen trees, deciduous trees and shrubs, and pollinator-friendly grasses were selected for the vegetative buffer sited around the Facility where existing vegetation is absent. This conceptual planting plan was developed as a site-specific solution appropriate to the scale of the Facility and visual character of the existing landscape in order to naturalize, harmonize, and diminish and/or block views to the Facility.
- Permeable access roads comprised of gravel aggregate are proposed to imitate the appearance of farm roads.
- The Facility design leverages tracker and bi-facial panel technology for the solar arrays. The maximum height of a tracker system is sustained for only a short period during daylight hours as the racking makes continuous angle adjustments to follow the sun. Therefore, the panels will not sustain a maximum height and will be less visible at certain times.
- The substation, Point of Interconnection (POI) switchyard, and transmission structures were sited adjacent to existing transmission right-of-way for immediate interconnection to the electrical grid. This siting strategy prevented potential visual impacts by avoiding electrical overhead structures at new locations.

The Facility gen-tie line is sited above ground on monopole transmission structures. Siting the gen-tie above ground allows for improved heat transfer of the conductor cables, allowing for smaller cables to be used. Additionally, underground high voltage lines require concrete joint vaults at every cable joint, as well as cement stabilized sand and concrete covers along the length of the cable to ensure the safety, thermal insulation, and electrical isolation of the cable. Underground lines require much more space between each phase cable because air is a much better insulator than cable sleeves and sand wetlands. The result of wider spacing is significantly more ground and wetland disturbance in the wider right of way for the gen-tie. In a January 2015



analysis, National Grid estimated that as much as 14 times more excavation is required for an underground line compared to an overhead line (page 8). More excavating, specialized cables, concrete jackets, and more make undergrounding a high voltage line several times more expensive than an overhead line (National Grid, 2015). 8. Section 5(8) "All associated structures shall be screened, placed underground, depressed, earth bermed or sited below the ridgeline to the greatest extent feasible, particularly in areas of high visibility. To the greatest extent possible, all such solar facilities will not be sited in areas of high visibility."

<u>8.a Response</u>: The Facility utilizes existing vegetation and proposed landscaping to screen structures to the greatest extent feasible. Electrical collection lines are proposed to be buried underground to circumvent and minimize the need for new aboveground transmission structures. According to the results of the solar array viewshed analysis (see Revised Figure 4 and Section 10.1.1), a total of 18.92% of limited predicted visibility is found within the VSA, meaning 81.08% of the VSA will not experience views to the Facility. In 5 years post-construction of the Facility, the proposed landscape plantings are expected to maturate and greatly reduce the limited amount of predicted visibility (81.08%).

A number of other mitigation and minimization measures were performed for the Facility, which is detailed in Section 11, VIMMP, and Revised Attachment 6, VIMMP.

While the local laws and codes provide some requirements for visual assessments of utility-scale solar collector systems, the 94-c regulations will satisfy the local requirements to the maximum extent practicable (see responses 1.a to 5.a above) for a VIA of the Facility. The Applicant has complied with the Town of Glen's visual assessment requirements as noted above. The summary findings and conclusions of the visual impact assessment are provided in Section 10, Visual Impact Analysis Results.

In addition to the above requirements related to the assessment of visual impacts, the Town of Glen Local Law No. 5 of 2022 includes other guidelines and requirements related to the local requirements for the construction of solar systems that may reduce or minimize visual impacts (see Revised Exhibit 24).

A Visual Impact Minimization and Mitigation Plan (VIMMP) was developed as part of the VIA and outlines proposed mitigation measures related to screening (Section 11.11), siting and design (Section 11.1), setback distances (Section 11.1), Facility color (Section 11.4), and downsizing and low profile (Section 11.2).



2.0 FACILITY CHARACTERISTICS AND DEFINITIONS

The Facility will be located on rural-agricultural land characterized by undulating terrain with intervals of cultivation, intermittent forest groupings, and tree hedgerows. In total, the Facility will have a generating capacity of 250 MW alternating current (AC) and will be sited on approximately 2,665.59 acres of land within the Town of Glen, Montgomery County, New York. The Facility will include components such as solar PV arrays, inverters, security fencing, access roads, temporary laydown yards, underground electric collection system, a substation, a generation tie line (gentie), and a POI consisting of a POI switchyard and two transmission lines.

The following definitions will be used to describe various areas or boundaries of the Facility throughout the VIA:

<u>Facility</u>: The proposed components to be constructed for the collection and distribution of energy for the Mill Point Solar I Project, which includes solar arrays, security fencing, access roads, inverters, electric collection lines, ancillary structures, and the substation.

<u>Facility Site</u>: The parcels encompassing Facility components which totals 2,665.59 acres in the Town of Glen, Montgomery County, New York (Figure 2-1). This includes both leased/purchased and non-leased/purchased portions of parcels.

<u>Visual Study Area (VSA)</u>: A 2-mile radius around the proposed fence perimeter of the Facility. This area is specifically designated for the assessment of visual impacts of the Facility and is also where the associated visibility analyses were conducted.

<u>Component</u>: An individual piece or collection of equipment or improvement of the Facility including, but not limited to, the solar arrays, electrical collection system (transformers, inverters, collection lines), substation, POI switchyard, access roads, laydown/staging areas, and fencing.

The proposed aboveground components to be installed will be "visually" assessed to meet the objectives of the VIA. Each proposed Facility component evaluated in this VIA is described and defined as follows:

<u>Solar Arrays</u>: The Applicant intends to use a solar module comparable to the LR5-72HBD Module. The Facility proposes to install solar modules on a tracker racking system that resembles the Nextracker Horizon XTRSingle Axis Tracker. A specification sheet for the module and racking system is included as Appendix 5-4 in Revised Exhibit 5. The maximum height of the solar array panels is anticipated to be 10 feet from finished grade, inclusive of the racking system. In general, the solar arrays will contain a light blue color appearance, whereas the racking system will consist of non-reflective gray color.

<u>Inverters</u>: Inverters will be located within the Facility Site, interspersed throughout the centroid areas of the solar arrays. Their purpose is to convert direct current (DC) electricity generated by the solar modules into AC electricity. Cables from the solar modules are run to the inverters using an aboveground cabling system or underground lines. From the



inverters, underground collection lines convey electricity to the Facility collector substation and ultimately to the existing electric transmission system. The Applicant intends to use a Sungrow SG3300UD or SG4400UD inverter, or similar. A specification sheet for these inverters is included in Appendix 5-4.

<u>Sound Walls</u>: Sound walls are proposed to partially surround select inverters and the collector substation (see Revised Exhibit 5 for more information). A sound wall equivalent to the Durisol Precast Noise Barrier will be used and surfaced with a comparable texture and color to the 1004B Natural Swatch, which resembles an earthy, natural tone. The heights of the sound walls vary between 12 and 15 feet depending on specific site conditions and performance criteria necessary to reduce noise (see Exhibit 7 for more information regarding noise and vibration). A specification sheet for the sound walls is included as Revised Appendix 5-4 in Revised Exhibit 5, as well as Revised Attachment 6.

<u>Substation</u>: Underground 34.5 kilovolt (kV) collection lines will gather power from the solar arrays and transport it to a new substation that will step up the voltage to 345 kV. The substation is approximately 3 acres in size and will be located adjacent to solar panels in the northeast portion of the Facility Site. Access to the substation will be via a new access road from Ingersoll Road near the existing Marcy-New Scotland 345 kV transmission line. Section drawings of the substation can be found in Revised Plan 6B of Revised Attachment 6 (Substation and POI Switchyard Plan & Profile Drawings and Lighting Plan). A single H-frame takeoff structure (60-foot height) will facilitate the connection of the substation to the POI switchyard (see below; transmission structures). Plans and sections of the substation are available in (Revised Attachment 6 and Revised Exhibit 5). In general, the color of the substation will be gray (galvanized steel), and the control building facade will consist of a natural galvanized steel, white, or ANSI gray color.

<u>O&M Building</u>: A 15-foot-tall operations and maintenance building is proposed along the substation's southern fence perimeter. The O&M facility exterior consists of three windows, two exterior doors, and one garage. The building's façade will utilize corrugated metal and be white or ANSI grey in color. Final material type and finish color details will be updated during detailed design. The O&M plan and sections are obtainable in Revised Attachment 6.

POI Switchyard: Electricity from the substation will be routed immediately south to the POI switchyard. Two additional 70-foot h-frame takeoff structures within the southern interior of the POI switchyard will route overhead conductors to newly proposed transmission structures (see below; transmission structures) where the interconnection is completed. The total area of the POI switchyard is approximately 1.8 acres; sectional drawings of this switchyard can be reviewed in Revised Plan 6B of Revised Attachment 6 (Substation and POI Switchyard Plan & Profile Drawings and Lighting Plan) as well as in Revised Exhibit 5. The appearance of the POI switchyard will generally be gray (galvanized steel), and the control building's facade will be comprised of a natural galvanized steel, white, or ANSI gray color.



<u>Transmission Structures</u>: One generation tie (gen-tie) line and two transmission lines are proposed to facilitate interconnection from the Facility to the existing Marcy-New Scotland 345 kV transmission line. The gen-tie line will comprise of two new (gray) galvanized steel dead-end structures (135 feet in height) that will connect the substation to the POI switchyard over a span of 0.27 miles. From the POI switchyard, two transmission lines span 691 and 607 linear feet and connect to the existing Marcy-New Scotland 345 kV transmission line. Each transmission line will be comprised of four new dark brown or green weathered steel structures.

The proposed western transmission line will consist of a 3-pole set (two poles at 200 feet, and one at 175 feet) which will replace an existing 190-foot H-frame. The second structure will comprise a new dead-end pole at 195 feet in height. The proposed eastern transmission line will contain one new 180-foot dead-end structure and a new 3-pole set (two poles at 145 feet and one at 120 feet). These transmission lines will each initiate from a 70-foot takeoff structure within the POI switchyard and terminate at the existing Marcy-New Scotland 345 kV transmission line. Plans and sections of the transmission structures and associated transmission lines are available in the Substation and POI Switchyard Plan & Profile Drawings and Lighting Plan (Revised Plan 6B of Revised Attachment 6 and Revised Exhibit 5).

<u>Access Roads</u>: New permanent access roads are proposed within the Facility Site to access Facility components. These access roads will be gravel-surfaced and 20 feet wide.

<u>Fencing</u>: Security perimeter fencing for the substation and POI switchyard will be installed around the immediate vicinity as required per regulatory standards. This fencing will consist of an 8-foot chain-link fence with a one-foot-long extension arm for attachment of barbed wire, resulting in a total fence height of 9 feet. A 15-foot sound wall will partially surround the substation perimeter, replacing the security fencing. The sound wall will also include a one-foot-long extension arm for attachment of barbed wire. Surrounding all other Facility components, fencing will consist of agricultural fencing with fixed-knot woven wire and evenly spaced galvanized (gray) metal posts. This agricultural fence shall measure a total height of 8 feet above ground level.

Although not considered an aboveground visual component, buried collection lines are proposed in lieu of overhead structures to avoid additional potential visual impacts, which is further defined as follows.

<u>Underground Electric Collection System</u>: The 34.5 kV collection lines will connect the solar arrays with the Facility substation for delivery to the electric grid. All medium voltage collection lines will be installed underground. Specific installation methods, as well as collection line arrangement, are shown on the Design Drawings (Revised Exhibit 5, Appendix 5-1).



3.0 CHARACTER OF THE EXISTING LANDSCAPE

Section 3.0 describes the character of the existing landscape within the VSA and Facility Site, including communities and residential areas, physiography and land use, water resources, transportation resources, energy infrastructure, and publicly known proposed land uses (other than the Facility described herein). To investigate the visual characteristics within the VSA, numerous information sources were referenced and consulted, including but not limited to aerial imagery; field assessments; publicly accessible tabular and geospatial data from local, state, and federal agencies; local and regional tourism websites; and public search engines, such as Google.

For an inventory of local, county, state, and federal visual resources and sensitive within the VSA, see Tables 4 and 5 in Section 6.0 below.

3.1 Community/Residential

Population data was derived from the U.S. Census Bureau (2020 Decennial Census) to convey information pertaining to population densities in the VSA and is provided below in Table 1A. Population of Communities within the 2-mile VSA. This population data does not account for interstate travelers nor national travelers that may visit the region or travel through to reach other destinations; information pertaining to transportation is available in Section 3.4. To provide further context and scale of the VSA population data in Table 1A, the City of Amsterdam is located approximately 5.6 miles east of the Facility and contains an estimated population of 18,219.

Table 1A. Population of Communities within the 2-Mile VSA

Town/Village	Population (2020 Estimates)
Town of Mohawk	3,572
Town of Glen	2,536
Town of Root*	2,013
Town of Florida*	2,667
Tribes Hill* (Census Designated Place)	937
Village of Fultonville	742
Village of Fonda	668
*Denotes communities/municipalities that are 2-mile VSA.	e minorly intersected by the



According to Table 1A, approximately 29% of the Town of Glen's population resides within the Village of Fultonville, and 19% of the Town of Mohawk's population resides within the Village of Fonda. The remaining percentage of population are typically found in smaller communities (hamlets or census designated places), and a lesser extent of population is described as rural-residential where dwellings may be found punctuated between large expanses of agricultural land.

Rural-residential development found within the VSA primarily consists of one-story to two-story dwellings located within the vicinity of local or county roads. These dwellings are often positioned with a reasonable amount of space between each neighboring property. Contrariwise, the Villages of Fonda and Fultonville, and the Census Designated Place (CDP) of Tribes Hill contain a dense concentration of dwellings and structures within a small, confined area. As shown in Table 1B below, The Villages of Fonda and Fultonville, and the CDP of Tribes Hill contain the most concentrated number of housing units within the VSA, which means a higher density of viewers is possible. The character of these communities is documented as viewpoint (VP) photographs found in the Facility Photolog in Attachment 2. Overall, the amount of population in the VSA is less compared to other more populous regions in New York State.

Housing Units

Total housing units are an aggregated measurement used for calculating statistics for estimated volume of buildings and dwellings within a geographic area or place. The Census Bureau's Population Estimates Program (PEP) produces estimates of the population for the United States (US Census Bureau, n.d.). Total housing units provisioned in the 2020 Census Address Count Listing are publicly available from the 2020 Decennial Census. Housing densities are quantified per census block, which collectively forms a block group within a single census tract.

Total housing units measured from local communities within the VSA were identified from each census block abutting the approximate surrounding area of each community center. The geographic location of smaller communities was identified from the United States Geological Survey (USGS) Geographic Names Information System (GNIS) database. The boundaries of each census block are not uniform and may range in shape or scale. Therefore, the total approximate housing units provided in Table 1B are conservatively measured and may contain more housing units than is expected at a given community. Inversely, this census data may not incorporate recent construction or planned developments that would potentially increase the estimated amount of housing units in a particular area.

Below, Table 1B conveys approximate housing units for each community in and around the VSA.



Table 1B. Housing Units of Communities within the 2-Mile VSA

Community	Total Approximate Housing Units*	Census Tract	Census Block
		072100	4072, 4073, 4074
Tribes Hill (Census Designated Place)	463	072200	1000, 1001, 1002, 1003, 1004, 1005, 1006, 1007, 1008, 1009, 1012, 1013, 1014, 1015, 1016, 1017, 1018, 1019, 1020, 1021, 1022, 1023, 1024, 2052, 2055, 2056
Village of Fultonville	328	072700	1003, 1004, 1005, 1008, 1009, 1010, 1011, 1012, 1013, 1014, 1015, 1016, 1023, 1024, 1026, 1027, 1033, 1034, 1035, 1036, 1037, 1038, 1039
Village of Fonda	354	072200	3001, 3009, 3010, 3011, 3012, 3015, 3016, 3017, 3018, 3019, 3021, 3022, 3023, 3024, 3025, 3026, 3027, 3028, 3029, 3030, 3031, 3032, 3033, 3041, 3042, 4024
Stone Ridge (Census Designated Place)	110	072700	3010, 3011, 3014, 3015, 3016, 3017, 3020, 3021
Hamlet of Glen	88	072700	2026, 2028, 2035, 2034, 2047, 2052, 2072
Hamlet of Auriesville	39	072700	2014, 2015
Berryville	15	072200	4020, 4021, 4029
Square Barn Corners	13	072700	1056, 2029, 2030, 2031

^{*}These address counts reflect the final counts of Housing Units (including transitory units) and group quarters for the 2020 Census.

According to Table 1B, communities with the most concentrated housing units in the VSA are listed as Tribes Hill, Fonda, and Fultonville. Lesser populated communities include the Hamlets of Auriesville and Glen, and minor civil divisions (Stone Ridge, Berryville, and Square Barn Corners). At 0.22-mile, the Hamlet of Glen is the closest hamlet to the Facility.

 <u>Communities that fall within 0.5 miles of Facility</u>: Towns of Glen and Mohawk, Village of Fultonville, Hamlets of Glen and Auriesville, and minor civil division of Square Barns Corners



• <u>Communities that fall between 0.5 and 2.0 mile of Facility</u>: Towns of Root and Florida, Village of Fonda, and minor civil divisions of Berryville, Stone Ridge, and Tribes Hill.

For information about the characteristics and potential effects of viewing distances, please visit Section 4.0, Distance Zones.

One Potential Environment Justice Area (PEJA) was identified within the VSA. The PEJA, Census Tract 727, Block Group 2 is bounded by the Town of Glen and comprises a total of 24.16 square miles. Environmental justice efforts focus on improving the environment in communities, specifically minority and low-income communities, and addressing disproportionate adverse environmental impacts that may exist in those communities. PEJAs are defined by 6 NYCRR Section 487.3 as areas with populations that meet one or more of the following thresholds:

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

Please reference Revised Exhibit 19, Environmental Justice, for more information regarding PEJAs.

3.2 Physiography and Land Use

The VSA is in two physiographic regions, the Glaciated Low Allegheny Plateau and the Mohawk Valley. The Mohawk Valley passes through the northern portion of the VSA and is characterized as a corridor of irregular river valley that travels east to west between the Adirondack Park and the Glaciated Low Allegheny Plateau (Bryce 2010). Within the VSA, the Mohawk Valley landform consists of upland (north to south) of the Mohawk River. These upland areas reach elevations of approximately 572 feet above sea level (ASL) on Boshart Road and 524 feet ASL on Van Epps Road, the Mohawk River lowland is conveyed with a lesser elevation of 290 feet ASL (on Main Street) in the Village of Fonda. Generally, when in and around the Mohawk Valley lowlands, the opportunity to experience far reaching views of the landscape is prohibited by upland topography. Conversely, upland areas near (north-south) the valley may furnish elevated positions for viewing the distant landscape.

Following south from the Mohawk Valley is the fringe of the Glaciated Low Allegheny Plateau, characterized by low rolling hills and flattened hilltops with a mosaic of farmland and woodlots spread throughout the area. This occurrence of variable terrain comprises much of the center and southern sections of the VSA with an elevational range from 690 feet ASL at the Hamlet of Glen to 1,035 feet ASL on Reynolds Road near the southern extents of the VSA. Lower elevations are noted on Ingersoll Road (463 feet ASL) and New York State Highway 30A (NY30A) north of the Hamlet of Glen (445 feet ASL).



The Facility Site contains elevations ranging from approximately 485 feet ASL to 725 feet ASL. Revised Figure 4 has been prepared with USGS topographic mapping and can be reviewed to understand the general character of existing topographic variability in and around the VSA.

3.3 Water

Water bodies can be an important aesthetic feature of a landscape and may also provide recreation and tourism opportunities. From within the Mohawk Valley Lowlands, the Mohawk River is the most prominent water feature in the VSA. This river horizontally bisects the northern section of the VSA and separates jurisdictional boundaries of the Villages of Fonda and Fultonville. The Mohawk River originates in the valley between the western Adirondacks and the Tug Hill Plateau and flows 140 miles to the east where it joins the Hudson River (NYSDEC n.d.).

The Schoharie Creek is a tributary to the Mohawk River and is found meandering along the eastern border of the VSA. The Schoharie Creek is included in the United States National Park Service (NPS) Nationwide Rivers Inventory (NRI) for its natural, recreational, and geological features. NRI rivers are potential candidates for inclusion in the National Wild and Scenic River System.

Several smaller tributary creeks identified within the VSA that contribute to the Mohawk River are known as the Van Wie Creek, Briggs Run Creek, Cayadutta Creek, Danascara Creek, Revine Creek, Auries Creek, and Irish Creek. Several smaller (man-made) ponds are located on rural and agricultural properties throughout the VSA and are predominantly on private land south of the Mohawk River.

3.4 Transportation

Roadways are generally publicly accessible and provide an opportunity for viewers to observe their surrounding environment and landscape. Determining the characteristics of a travel route assists with identifying the potential viewer types, frequency of view, as well as traffic volume. For example, the New York State Thruway (NY I-90) sustains thousands of vehicles daily, thereby providing a high frequency for users to discern the visual environment. Inversely, less traveled rural roads such as Ingersoll Road (less than 100 daily travelers in the VSA) do not accommodate many viewers or population, therefore, views of the landscape would be infrequent.

Annual Average Daily Traffic (AADT) was utilized to estimate the average volume of daily travelers within the VSA. AADT is a planning metric used primarily in transportation planning and transportation engineering. Traditionally, it is the total volume of vehicle traffic of a highway or road for a year divided by 365 days. AADT counts are provided by the New York State Department of Transportation (NYSDOT) and are presented below in Table 2.



Table 2. Available Traffic Data within the 2-Mile VSA

Route/ Road Name	From	То	Town	AADT	NYSDOT Functional Class
NY I-90	Fultonville (Exit 28)	Amsterdam (Exit 27)	Glen, Florida,	25,412	Principal Arterial Interstate
NY I-90	Fultonville (Exit 28)	Canajoharie (Exit 29)	Glen, Root, Canajoharie	23,637	Principal Arterial Interstate
New York State Highway 5 (NY5)	NY30A	CR28	Mohawk	4,089	Minor Arterial
New York State Highway 5S (NY5S)	Route 920P Junction (Riverside Drive)	City of Amsterdam	Glen, Florida	3,759	Major Collector
NY30A	NY161	CR116 (Van Epps Road)	Glen	2,445	Minor Arterial
Auriesville Road	NY30A	NY5S	Glen	527	Local
Fisher Road	Argersinger Road	NY30A	Glen	194	Local
Ingersoll Road	CR116	NY30A	Glen	99	Local

https://www.dot.ny.gov/gisapps/functional-class-maps

Vehicular routes of transportation are also defined by the NYSDOT Office of Technical Services. These classifications of roads are helpful for understanding the types of viewers and frequency of use within the VSA and are defined below:

- <u>Arterial Roads:</u> Provides expedited travel for the public at higher uninterrupted speeds. Usually consisting of transportation corridors that accommodate a multitude of travelers.
- <u>Collector Roads:</u> Provides a less highly developed level of service at a lower speed for shorter distances by collecting traffic from local roads and connecting them with arterials.
- <u>Local Roads:</u> Consists of all roads not defined as arterials or collectors; primarily provides
 access to land with little or no through movement and accommodates travel over shorter
 distances.

NY I-90

With an AADT approximately ranging from 23,637 to 25,412, the most traversed roadway within the VSA is NY I-90. This transportation corridor is defined as a Principal Arterial functional class, which is described as roads that offer long-distant traveling, high levels of mobility, and a connection to major urban areas. Typically, these roadways confine access to limited areas and are valued for their beneficial impacts to the economy, travel, and tourism.



Paralleling a segment of the Mohawk River, NY I-90 spans 426 miles from Buffalo to New York and serves as a national travel route connecting the west coast to the east coast (Washington to Massachusetts). In the VSA, NY I-90 follows along the lowlands of the Mohawk Valley and intersects through the northern extents of the VSA. Entry points to NY I-90 are located on Riverside Drive in the Village of Fultonville. NY I-90 also offers expedited travel speeds of up to 65 miles per hour (mph) with minimal disruptions as well as providing distant traveling to other states or regions.

New York State Highway 5 (Revolutionary Trail Scenic Byway)

New York State Highway 5 (NY5) is identified as a Minor Arterial functional class with an AADT of approximately 4,089. NY5 supports relatively uninterrupted travel to larger towns and highways, as well as providing a network to interstate (Arterial Roads) and intercounty service. Found in the northern section of the VSA, NY5 generally runs parallel to NY I-90 through the Village of Fonda to Tribes Hill and is found north of the Mohawk River. NY5 is recognized by the NYSDOT as the Revolutionary Trail Scenic Byway, which spans roughly 158 miles east-to-west from Albany to Lake Ontario.

NY5S

NY5S is classified as a Major Collector functional class. NY5S is oriented in an east-to-west manner and is located adjacently south of the Mohawk River and NY I-90 (in the north portion of the VSA) within the Mohawk Valley. NY5S is designated as a State Bicycle Route and is slightly less utilized by vehicles (as compared to NY5) with an approximate AADT of 3,759. From the eastern boundary of the VSA, NY5S interconnects the Hamlet of Auriesville to the Village of Fultonville and to Stone Ridge in the west.

NY30A

NY30A is a Minor Arterial functional class and has an approximate AADT of 2,445. In the VSA, NY30A functions as a north to south transportation route connecting the Villages of Fonda and Fultonville to the Hamlet of Glen. Overall, NY30A sustains less traffic and travelers compared to NY5, NY5S, and NY I-90.

In the VSA, a small segment of NY30A is designated as the Adirondack Trail Scenic Byway. This brief section of roadway initiates at the intersection of Broadway Street and Main Street in the Village of Fonda and follows north approximately 181-miles through the Adirondack Park to the terminus at the Village of Malone.

Local Roads

Local roads consist of all roads not defined as arterials or collectors that primarily provide access to land with little or no through movement and accommodates travel over shorter distances. Local roads in the VSA are generally rural in nature and provide one travel lane in each direction with limited shoulder and roadside treatments.



Some examples of local roads proximal to the Facility Site are identified as Auriesville Road, Fisher Road, and Ingersoll Road. These roads range from an AADT of 99 (Ingersoll Road) to 527 (Auriesville Road). This AADT data provides useful information for generalizing the anticipated number of users that travel on local roads, such that the frequency and volume of users traversing on local roads is significantly less than other roadways in the VSA (in comparison to NY I-90, NY5, NY5S, and NY30A). Other Local roads adjacent to the Facility include Egelston Road, Mile Level Road, Mary's Lane, and Van Epps Road.

3.5 Existing Energy Infrastructure

As mentioned in Section 2.0, the Facility will interconnect to the existing Marcy-New Scotland 345 kV transmission line. Several aboveground infrastructures of varying heights, materials, and configurations are noted within the VSA and are documented below:

- Marcy-New Scotland 345 kV transmission line (The Central East Energy Connect Project)

 Spanning from the Town of Marcy to the Town of New Scotland. Within the VSA, this existing 345 kV transmission line traverses through the Towns of Mohawk and Glen. The Facility is proposing to interconnect into this transmission line (see Section 2.0 for more information).
- Van Epps & Mohawk View Community Solar Eden Renewables Has recently (2022) constructed two adjacent solar array farms consisting of 5 MW of renewable energy each with an energy storage system located on the western side of 677 Van Epps Road in the Town of Glen.

3.6 Publicly Known Proposed Land Uses

The Applicant has reviewed publicly available information, including town documents, public notices, and town board and planning board meeting minutes, and has determined that there are two known proposed land uses within the VSA as listed below.

- 2621 State Highway 5S Solar Project: one 5 MW community solar farm proposed by New Leaf Energy.
- Mill Point Solar II: one 100 MW, utility-scale solar energy facility proposed by ConnectGen Montgomery County LLC.



4.0 DISTANCE ZONES

Distance zones were established within the VSA for assessing and determining visual effects over discrete distances and are required as cited in Section 900-2.9 (b)(1) of the 94-c Regulations. Distance zones provide information about the level of detail and acuity of objects in the landscape over various distances. These zones have been defined in documents produced by the U.S. Forest Service or the Bureau of Land Management. However, certain procedures or guidelines may be inapplicable to the northeast and are more appropriate for western landscape applications. Therefore, discretion must be used when selecting distance zones as the effects of distance highly depend on the characteristics of the landscape. Furthermore, the magnitude of the proposed action must also be considered when assigning distance zones. For example, solar panels exhibit a smaller profile and sit lower in the landscape as opposed to mature trees, two-story buildings, or transmission structures that assume taller heights. Therefore, distance zones for this Facility have been judiciously modified from the U.S. Forest Service Handbook to accommodate the extents of the VSA, the limitations of human vision, and the low-profile scale of the Facility components. Consequentially, two distance zones have been incorporated within the 2-mile VSA:

- <u>Distance Zone 1:</u> Foreground (up to 0.5 miles from the viewer). This zone represents the closest views to the Facility. Clarity of individual details, textures, and the full spectrum of colors are typically discernable. Because of the proximal distance of this zone and the limited height of the solar panels, predicted areas of visibility are typically concentrated within this zone.
- <u>Distance Zone 2:</u> Middle ground to Background (0.5 to 2 miles from the viewer). In this zone from distances up to approximately 1-mile, individual trees and buildings can still be distinguished but textures become less sophisticated. Viewing from the extents of this distance zone is when forms begin to converge into homogenous shapes and colors. Often, atmospheric haze may affect color and contrast of objects during specific weather conditions, resulting in the landscape inheriting a very light blue color. From this distance the solar panels merge into single form or geometric shape. Slimmer components such as the fencing may become imperceivable at this distance. The amount of predicted visibility is usually less in this zone as screening effects of topography, trees, and buildings become more plentiful in the viewing field.

Figures 2, 3, 4, and 5 show the location of Distance Zones 1 and 2. A discussion of the percentage of Facility visibility in each Distance Zone can be found in Section 10.1.1 below.



5.0 LANDSCAPE SIMILARITY ZONES

Various characteristics of the existing landscape and landform to which share a commonality can be identified, delineated, and mapped as Landscape Similarity Zones (LSZs). Identified LSZs are categorized by landform, vegetation, open water, land use, and user activity zones, and provide additional context for evaluating viewer circumstances where inter-relationships between viewer groups and visual experience can be made. LSZs also convey the landscape attributes that affect the viewing environment. For example, forested landscapes with canopy views may confine viewing limits, whereas places of open landscape, such as open water areas, may provide farther viewing opportunities. Viewer groups, potential viewer frequency, and duration of view can also be estimated as they relate to LSZ.

The 2019 USGS National Land Cover Dataset (NLCD) was accessed to establish LSZs to categorize distinct landscape types within the VSA. These NLCD data were further enhanced by utilizing a combination of aerial photo interpretation and ground truthing to validate the accuracy of the NLCD data as needed. To view a map of the delineated LSZs within the VSA, please see Revised Figure 2, Landscape Similarity Zones Map. Overall, this effort resulted in the definition of five LSZs within the VSA, presented as follows.

- Zone 1: Agricultural This LSZ consists of open land that is predominantly used for cultivation or crops and/or livestock, or it may contain pasture, or left fallow. This LSZ exhibits variable upland terrain ranging from flat to rolling and includes less areas of shallow valley (lowland). In upland areas of this LSZ, there may be discernment of the surrounding and distant landscape, however, the number of the viewing public, as well as the frequency and duration of viewers, is likely low. Typically, sparsely located farmsteads and single residential dwellings intermittently dot this open landscape. Minor forms of vegetation are seen in this LSZ as single strand tree hedgerows separating quadrangular shaped agricultural lands in mosaic patterns. Larger existing man-made components intermittently dot this landscape and consist of utility poles, transmission structures, barn silos, and large farm complexes. Land use within this zone is limited to cultivation or livestock farming with a significantly less amount of habitation use. Several photographic examples of the Zone 1 Agricultural LSZ are available as VPs 4, 7, 10, 11, 19, 24, 36, 41, 45, 61, 68, and 76 in the Facility Photolog of Attachment 2.
- Zone 2: Forested This zone represents lands comprised of mature deciduous and coniferous species, as well as mixed tree groups. Forested areas can encompass large swaths of land or be an isolated grouping of trees. Typically, forested lands are owned by private entities, or they may be protected and stewarded by a government agency. Those forested lands owned by public entities or organizations (e.g., NYSDEC) tend to offer the public recreational activities such as hunting, nature viewing, hiking, or camping. The type of viewing opportunities in this zone are typically confined to the forest itself, however, under specific situations it may be possible to view longer distances from forested land (e.g., views from an observation tower/deck or from a forested edge abutting an open field). Several photographic examples of the



Zone 2 Forested LSZ are available as VPs 1, 49, 53, 54, 62 and 73. These VPs and associated photographs are presented in the Facility Photolog of Attachment 2.

- Zone 3: Developed This zone includes villages, towns, cities, minor civil divisions, rural residential abutting roadways, and the NY I-90 transportation corridor. In rural settings, dwellings are characterized by a mix of single-family residences and farmsteads intermittently spaced along the vicinity of roads. These places with more condensed development may experience limited or confined views because of closely located foreground objects, such as buildings or street trees that may impede distant views. Rural residential dwellings within the near vicinity of the Facility may experience visual change if topography or dense vegetation is not present. Several photographic examples of the Zone 3 Developed LSZ are available, but not limited to VPs 30, 31, 37, 52, 55, 56, 67, 74, and 89. To review the representative VP locations and photography, please refer to the Facility Photolog of Attachment 2.
- Zone 4: Open The Zone 4 Open LSZ includes miscellaneous other open land that may have minor development with less visually obstructive features such as minor expanses of barren land, land with short scrub-shrub vegetation, cemeteries, golf courses, paved lots, playgrounds, or small emergent wetlands. Viewing opportunities in this zone may be afforded because of the open landscape and lessened height of vegetation or lack thereof. Photographs exemplifying the characteristics of Zone 4 Open LSZ are shown as VPs 29, 31, 35, 40, 57, 63 and 75 in the Facility Photolog of Attachment 2.
- Zone 5: River Corridor Zone 5 River Corridor LSZ represents two river corridors within the VSA: the Mohawk River and Schoharie Creek (river) found within the Mohawk Valley lowlands. This zone is described as an elongated body of water that is typically bounded by wooded riparian zones and a few brief intervals of concentrated development. Generally, observers in this zone have limited distant viewing opportunities when oriented perpendicular from the river where foreground vegetation and development often intervene. Contrariwise, distant landscape viewing opportunities are conducive when aligned with the corridor's lateral length, or when facing parallel with the river. Examples of the Zone 5 River Corridor LSZ are noted as VPs 64 and 65 in the Facility Photolog of Attachment 2.

Table 3 is provided below to demonstrate the differing percentages of LSZs within the 2-Mile VSA.



Table 3. Percentage of LSZs within the 2-Mile VSA

LSZ	Total LSZ Square Miles	Total LSZ Percent
Zone 1 Agricultural	23.6	53.7%
Zone 2 Forested	14	31.9%
Zone 3 Developed	4.6	10.5%
Zone 4 Open	0.7	1.6%
Zone 5 River Corridor	1.01	2.3%
Total	43.94	100%

As shown in Table 3, LSZ Zone 1 Agricultural is prominent at 53.7% of the VSA land area. LSZ Zone 2 Forested is comprises 31.9% of the VSA land area and can largely affect where visibility is predicted. The remaining LSZs are contributors of the VSA and include LSZ Zone 3 Developed (10.5% of the VSA), LSZ Zone 5 River Corridor (2.3% of the VSA), and LSZ Zone 4 Open (1.6%) of the VSA.

A discussion of the percentage of Facility visibility in each LSZ can be found in Section 10.1.1 below.



6.0 SCENIC RESOURCE INVENTORY

A comprehensive inventory of aesthetic resources was established within the VSA according to readily and publicly available information. These data are comprised of local, county, state, and federally recognized visual resource and/or sensitive sites within the full extents of the VSA and were compiled according to 19 NYCRRR Section 900-2.9 (b)(4)(ii). Data sources consulted to compile the inventory consisted of publicly available Geographic Information Systems (GIS) data; town, county, and agency reports; and websites (see Section 15.0, References, for a complete listing of cited sources). Visual resources were also identified during several field investigations for securing VP locations and associated photography. The complete inventory is provided in Tables 4 and 5 in Section 6.1, below. Figures 3, 4, and 5 depict the geographic location of each inventoried resource.

Per 19 NYCRRR Section 900-2.9 (b)(4)(ii) and Section 900-2.9 (a), the following criteria was referenced for identification of visually sensitive resources within the VSA:

- Landmark landscapes;
- Wild, scenic, or recreational rivers administered by NYSDEC, Adirondack Park Agency, or Department of the Interior;
- Forest preserve lands;
- Scenic vistas specifically identified in the Adirondack Park State Land Master Plan;
- Conservation easement lands;
- Scenic byways designated by the federal or state governments;
- Scenic districts and scenic roads, designated by the Commissioner of Environmental Conservation;
- Scenic Areas of Statewide Significance;
- State parks;
- Historic sites listed or eligible on the National Register of Historic Places (NRHP) or State Register of Historic Places (SRHP);
- Areas covered by scenic easements, public parks, or recreation areas;
- Locally designated historic or scenic districts and scenic overlooks; and
- High-use public areas.

In accordance with 19 NYCRRR Section 900-2.9 (b)(4), two discrete information requests were distributed to stakeholders on two separate dates: one on September 27, 2021, and a second on April 20, 2023.



First Information Request to Visual Stakeholders (September 27, 2021)

The first information request consisted of preliminary visual data indicating the extent and findings of visibility studies at that point in time as well as identified visual resources. This engagement provided an opportunity for Stakeholders to append additional visual resources to the inventory. The Town of Glen (Town Historian) and Town of Mohawk responded to the request by recommending the inclusion of "New York State (NYS) Overlook Rest Stop" located on NY5 (referred to in this VIA as Rest Stop Overlook; Mohawk Area #3 Marker). Subsequently, this resource was included in Table 4 and 5 (see Map ID: U21 and HM13), and a representative VP location was secured and prepared as a photo-simulation (see VP 61 in Revised Attachment 3). Also requested was the inclusion of all local historical markers within the VSA. Historical markers were once erected and managed by the New York Department of Education, however, it is now the responsibility of local authority for the approval, installation, and maintenance of historical Marker markers (Lord n.d.). The Applicant consulted the Historical (https://www.hmdb.org/) and reviewed field assessment data for historical markers, memorials, and monuments of local historical significance. A total of 44 historical markers were identified within the 2-mile VSA and incorporated into Table 4.

There was also a request for a visual assessment of the Western Supreme Buddhist Temple, Martyr's Shrine, Mohawk River, and Bike Route 5. As indicated in Table 5, these sites are inventoried (see Map ID: D4; Western Supreme Buddha Temple, 12; National Shrine of the North American Martyrs, J10; NYS Bicycle Route 5, and 2; New York State Barge Canal Historic District: Mohawk River). Several local visual stakeholders expressed concern of visual change from Van Epps Road, NY30A, Auriesville Road, and the Hamlet of Glen. These resources are recorded in Table 4 and 5 and accounted for within this VIA.

The Montgomery County Department of History and Archives responded to the request to append additional resources by provisioning a table of county-wide resources (see Attachment 4 Outreach Correspondence). This table of county-wide resources was reviewed and visual resources within the bounds of the 2-mile VSA were integrated into Table 4 and 5. A few sensitive archeological sites were requested on behalf of the Montgomery County Department of History & Archives to be incorporated in the aesthetic resource inventory. These archeological sites are currently protected, and the geographic locations of these sites are not publicly available. Protections associated with these sensitive archeological sites are implemented to protect the integrity of the potential artifacts and resources that may have yet to be unearthed.

Another stakeholder expressed a general visual concern regarding the Montgomery County scenic byways and NYS snowmobile trails with an emphasis on Auriesville Road. These resources are provisioned in Table 5 and are denoted as Map ID: H8; NYS Snowmobile Trails (S72, S71, C7P, C7D, C7B) and MC1 through M12; Montgomery County Scenic Byways. A representative photo-simulation was prepared from Auriesville road to further elaborate on the Facility's potential visual effect (see Revised Attachment 3 to review the photo-simulation and Section 10.2.1.1 for the description). Additionally, Auriesville Road is further discussed within Section 10.1.1.4 Visibility of Solar Arrays from Public Roads.



Second Information Request for Visual Stakeholders (April 20, 2023)

A second information request was distributed and consisted of more succinct preliminary visual data which included a Facility Photolog (see Attachment 2), an amended visual resource inventory, and revised cartographic mapping. Opportunity was again provided for stakeholders to review and append additional visual resources of concern to the inventory and/or choose or add photographs for Facility photo-simulations.

The Town of Glen (Supervisor) submitted a response to the visual outreach engagement in the form of a letter, dated July 27, 2023. This letter conveys that the town board engaged in discussion regarding the information request. The letter describes a general dissatisfaction with the number of captured VP locations (98 VPs were recorded; see Attachment 2) and further states that "[the photos] fail to fully provide every vantage point situation of visibility of the vastness and cumulative effects of the project's facility". However, the last sentence of the letter states that additional locations of photo opportunities will unlikely infuse or alter any new revelations of appreciable visual impact. Pursuant to 19 NYCRRR Section 900-2.9 (b)(4), the prescribed VP selection process conforms to rigorous regulatory requirements. VP locations are documented to demonstrate a representative public area or place and are not intended to illustrate every fraction of the VSA. To obtain information about the VP selection criteria, please visit Section 7.3.2 below.

The Montgomery County Department of History and Archives concurred with the recommended candidate VP locations and responded with a general concern for potential visual impacts to resources in conjunction with the visitation of the resources, as well as a concern for qualitative changes to the viewable landscape.

The resources of stakeholder concern, indicated above, are addressed in the VIA herein and are evaluated to understand the extent and significance of Facility visibility pursuant to 19 NYCRR Section 900-2.9. Visual resources with predicted visibility were further visually analyzed through the development of seven photo-simulations and three Line of Sight (LOS) profiles (see Revised Attachment 3 to review the photo-simulations and LOS profiles, and Section 13.0 for the discussion of the results). In accordance with 19 NYCRR Section 900-2.9 (a)(10), a description is provided for each visual resource affected by the Facility in Section 10.1.1.

In October of 2021, a historic architectural survey was conducted by TRC on behalf of the Applicant. The purpose of the survey was to identify the presence of historic architectural properties per State Historic Preservation Office (SHPO) criterion (e.g., aged 50 years or older) within the Area of Potential Effects (APE). Historic resources listed in, eligible for listing in, or recommended eligible for listing in the NRHP were assessed for potential effects of the Facility (refer to Revised Exhibit 9 Cultural Resources).

As a result of the historic architectural survey, the Fonda Main Street Historic District was deemed eligible for NRHP listing. Separately, 15 NRHP eligible historic resources, three historical districts (the Fultonville Historic District, the New York State Barge Canal Historic District, the Glen Historic District), and seven separate NRHP listed sites were identified within the VSA and subsequently incorporated into Table 5. In total, 7 NRHP listed sites, 35 individual NRHP eligible historic sites,



3 NRHP listed historical districts, and 1 NRHP eligible historic district were inventoried as outlined in Table 5. Moreover, it is important to note that for the purposes of this VIA, the New York State Barge Canal Historic District has been divided into two sections as they occur in two discrete areas within the VSA. These areas are defined below as follows.

- The Fonda Terminal and Canal Shops (see Map ID 2 in Revised Figure 5)
- Mohawk River (see Map ID 3 in Revised Figure 5)

In a letter dated November 23, 2022 (see Revised Exhibit 9, Appendix 9-2), the New York State Office of Parks, Recreation, and Historic Preservation (OPRHP) identified potential impacts to the Glen Historic District based on the Historic Architectural Report that was submitted to OPRHP on October 24, 2022. To complete their review, OPRHP requested landscaping information in Facility plans in the vicinity of the Glen Historic District. TRC provided OPRHP with the additional information requested on June 16, 2023. OPRHP responded to the information request on July 14, 2023 (Revised Exhibit 9, Revised Appendix 9-2) indicating that "no above ground concerns, as the solar array visibility from the Glen Historic District will be limited".

6.1 94-c Aesthetic Resources Inventory

Table 4 consists of locally recognized or elected resources obtained during two separate engagements with visual stakeholders and Table 5 contains the results of the investigatory findings for listed and recognized scenic resources within each village, town, or agency in accordance with the above listed 94-c aesthetic resource criteria. Figures 3, 4, and 5 depict the geographic location of each inventoried resource. The Facility Photolog in Attachment 2 illustrates photographs taken from VP locations throughout the VSA. Many of these photographs were documented from inventoried scenic and aesthetic resources identified below. The existing condition photographs depict the perspective that matches the direction of the Facility Site.



Table 4. Local Historical Markers, Memorials, and Monuments within the 2-Mile VSA

Map ID	Resource Name	Town/Village	Approximate Distance to Solar Arrays (Mile)	LSZ ²	Viewer Groups	Federal (F), State (S), County (C), or Local (L) Resource	Potential Visibility ¹
Local H	listorical Marker	rs, Memorials, a	nd Monuments				
HM1	Ossernenon Marker	Glen	1.02	1,2,3	Local, Visitor	L, C	No
HM2	Homestead of Capt. Albert C. Olmsted Marker	Glen	0.92	1,2,3	Local, Visitor	L, C	Yes
НМ3	Cromwell Home Marker	Glen	1.13	2,3	Local, Visitor	L, C	No
HM4	First School Marker	Glen	0.79	2,3	Local, Visitor	L, C	No
HM5	Van Dorn's Mill Marker	Glen	1.02	2	Local, Visitor	L, C	No
HM6	Van Epps Home Marker	Glen, Fultonville	0.75	2,3	Local, Visitor	L, C	No
НМ7	Volkert Veeder Home Marker	Mohawk	0.53	1,2,3	Local, Visitor	L, C	No
HM8	Johnson Hall – 1763	Glen	0.23	2,3,4	Local, Visitor	L	No
НМ9	Site of The Battle of Oriskany	Glen	0.32	2,3,4,5	Local, Visitor	L	No
HM10	Herkimer Home – 1764	Glen	0.30	2,3,4,5	Local, Visitor	L	No



Map ID	Resource Name	Town/Village	Approximate Distance to Solar Arrays (Mile)	LSZ ²	Viewer Groups	Federal (F), State (S), County (C), or Local (L) Resource	Potential Visibility ¹
HM11	Mohawk Area #1 Marker (NY I-90)	Glen	0.29	2,3,4,5	Local, Visitor, Area Traveler	L	No
HM12	Mohawk Area #2 Marker (NY I-90)	Glen	0.24	2,3	Local, Visitor, Area Traveler	L	No
HM13	Mohawk Area #3 Marker (Rest Stop Overlook)	Mohawk	0.94	1,3,4	Local, Visitor, Area Traveler	L	Yes
HM14	Douw Fonda Marker	Mohawk, Fonda	1.02	3,4	Local, Visitor	L, C	No
HM15	Fonda Tavern Marker	Mohawk	1.52	2,3	Local, Visitor	L, C	No
HM16	Danascara Place Marker	Mohawk	0.89	2,3	Local, Visitor	L, C	No
HM17	Fultonville Union Free High School Marker	Glen, Fultonville	1.26	3,4	Local, Visitor	L, C	No
HM18	Jail Limit Marker	Mohawk	1.77	2,3,4	Local, Visitor	L, C	Yes
HM19	Caughnawag a Church Marker	Mohawk, Fonda	1.33	3	Local, Visitor	L, C	No
HM20	Reformed Dutch Church	Mohawk, Fonda	1.34	3	Local, Visitor	L	No



Map ID	Resource Name	Town/Village	Approximate Distance to Solar Arrays (Mile)	LSZ ²	Viewer Groups	Federal (F), State (S), County (C), or Local (L) Resource	Potential Visibility ¹
	of Caughnawag a Marker						
HM21	Thomas Romeyn Marker	Mohawk, Fonda	1.34	3	Local, Visitor	L	No
HM22	Fonda Cemetery Marker	Mohawk, Fonda	1.32	3,4	Local, Visitor	L, C	No
HM23	Court House Marker	Mohawk, Fonda	0.97	3,4	Local, Visitor	L, C	No
HM24	The 115th & 153rd Regiments Marker	Mohawk, Fonda	0.95	3,4	Local, Visitor	L	No
HM25	Major General Richard Montgomery Marker	Mohawk, Fonda	0.93	3,4	Local, Visitor	L	No
HM26	Isaac Jogues Marker	Glen	1.04	1,2,3	Local, Visitor	L	No
HM27	Kateri Tekakwitha Marker	Glen	1.06	1,2,3	Local, Visitor	L	No
HM28	Veeder Home Marker	Mohawk	0.52	3,4	Local, Visitor	L	No



Map ID	Resource Name	Town/Village	Approximate Distance to Solar Arrays (Mile)	LSZ ²	Viewer Groups	Federal (F), State (S), County (C), or Local (L) Resource	Potential Visibility ¹
HM29	A Liberty Pole Marker	Mohawk	0.64	3,4	Local, Visitor	L, C	No
HM30	Liberty Pole (Stone Marker)	Mohawk	0.65	3,4	Local, Visitor	L	No
HM31	Caughnawag a Marker	Mohawk	0.91	2,3,4	Local, Visitor	L, C	No
HM32	Caughnawag a and St. Peter Chapel Marker	Mohawk	0.94	2,3,4	Local, Visitor	L	No
НМ33	Montgomery County Korean War Veterans Monument	Mohawk, Fonda	1.15	3,4	Local, Visitor	L	No
HM34	Wemple Tavern Marker	Mohawk, Fonda	1.01	2,3	Local, Visitor	L	No
HM35	Peggy Wemple Tavern and Mill Marker	Mohawk, Fonda	0.97	2,3	Local, Visitor	L, C	No
НМ36	Camp Mohawk Marker	Mohawk	1.37	3,4	Local, Visitor	L, C	No



Map ID	Resource Name	Town/Village	Approximate Distance to Solar Arrays (Mile)	LSZ ²	Viewer Groups	Federal (F), State (S), County (C), or Local (L) Resource	Potential Visibility ¹
HM37	County Poorhouse Marker	Glen	1.08	2,3	Local, Visitor	L, C	No
HM38	Patriot Burials Marker	Glen	0.30	2,3,4	Local, Visitor	L, C	No
HM39	Pappy Douw Fonda House Marker (Sign Missing)	Fonda	1.01	2,3	Local, Visitor	С	No
HM40	Rev Frothingham	Fonda, Mohawk	1.01	3	Local, Visitor	L, C	No
HM41	Block House	Glen, Fultonville	0.73	3	Local, Visitor	С	No
HM42	Old Courthouse Complex	Fonda, Mohawk	0.94	3	Local, Visitor	С	No
HM43	Court House	Fonda, Mohawk	1.15	3	Local, Visitor	С	No
HM44	Davis Tavern (Marker Currently Missing)	Fonda, Mohawk	1.31	3	Local, Visitor	С	No

¹Potential visibility is obtained from the viewshed analysis using topography, trees, and buildings only, per 19 NYCRRR Section 900.2.9(b)(1).

²Please refer to Section 5.0, Landscape Similarity Zones, for definitions of each LSZ.



Table 5. Inventory of Aesthetic Resources within the 2-Mile VSA

Map ID	Resource Name	Town/Village	Approximate Distance to Solar Arrays (Mile)	LSZ ⁴	Viewer Groups	Federal (F), State (S), County (C), or Local (L) Resource	Potential Visibility ¹
Recreation							
A1	Village of Fonda Recreational Park	Fonda	1.01	3,4	Local, Visitor	L	No
B2	Mohawk River Canoe Launch	Fultonville	1.29	3,5	Local, Visitor	L	No
C3	George P. Synder SR. Community Park	Fultonville	0.91	3,4	Local, Visitor	L	No
D4	Western Supreme Buddha Temple	Glen	1.35	3,4	Local, Visitor	L, C	Yes (Minimal)
E5	Bellinger's Orchard	Glen	0.66	1,3	Local, Visitor	L	Yes
F6	Fonda Little League Park	Mohawk	1.48	3,4	Local, Visitor	L	Yes (Minimal)
G7	Tribes Hill Community Park	Mohawk	1.63	3,4	Local, Visitor	L	No
H8	NYS Snowmobile Trails (S72,	Multiple Municipalities	N/A	1,2	Local, Visitor	S	Yes (C7D, C7B, S71, S72)



Map ID	Resource Name	Town/Village	Approximate Distance to Solar Arrays (Mile)	LSZ ⁴	Viewer Groups	Federal (F), State (S), County (C), or Local (L) Resource	Potential Visibility ¹
	S71, C7P, C7D, C7B)						
19	Erie Canalway Trail	Multiple Municipalities	0.19 (closest point)	2,3,4	Local, Visitor	S	No
J10	NYS Bicycle Route 5 (NY5S)	Root, Glen	0.18 (closest point)	1,2,3	Local, Visitor, Commuter	S	Yes (Minimal)
NYS Scenic B	yways						
K11	Adirondack Trail/NYS Route 30A	Mohawk, Fonda	0.98	1,2,3	Local, Visitor, Commuter,	S, C	No
L12	Revolutionary Trail/NYS Route 5	Mohawk, Fonda	0.5 (closest point)	1,2,3	Local, Visitor, Commuter	S	Yes
Montgomery C	County Scenic By	yways					
MC1	Auriesville Road (CR 122)	Glen	0.01 (closest point)	1,2,3	Local, Commuter	С	Yes
MC2	Borden Road (CR 115)	Glen	0.60 (closest point)	1,2,3	Local, Commuter	С	No
MC3	Fisher Road (CR 118)	Glen	0.01 (closest point)	1,2,3	Local, Commuter	С	Yes
MC4	Hickory Hill Road (CR 33)	Mohawk	0.74 (closest point)	1,2,3	Local, Commuter	С	Yes
MC5	Hyney Hill Road (CR 123)	Glen	1.43 (closest point)	1,2,3	Local, Commuter	С	Yes (Minimal)



Map ID	Resource Name	Town/Village	Approximate Distance to Solar Arrays (Mile)	LSZ ⁴	Viewer Groups	Federal (F), State (S), County (C), or Local (L) Resource	Potential Visibility ¹	
MC6	Ingersoll Road (CR 117)	Glen	0.01 (closest point)	1,2,3	Local, Commuter	С	Yes	
MC7	Logtown Road (CR 110)	Glen	0.27 (closest point)	1,2,3	Local, Commuter	С	Yes	
MC8	Noeltner Road (CR 164)	Glen	0.43 (closest point)	1,2,3	Local, Commuter	С	Yes	
MC9	Noeltner Spur (CR 166)	Glen	0.69 (closest point)	1	Local, Commuter	С	Yes	
MC10	Old Trail Road (CR 30)	Mohawk	1.5 (closest point)	1,2,3	Local, Commuter	С	No	
MC11	Stone Arabia Road (CR 34)	Mohawk	1.48 (closest point)	1,2,3	Local, Commuter	С	Yes (Minimal)	
MC12	Van Epps Road (CR 116)	Glen, Fultonville	0.02 (closest point)	1,2,3	Local, Commuter	С	Yes	
NYS/National I	Heritage Corrido	r						
Encompasses VSA	Erie Canalway National Heritage Corridor	Multiple Municipalities	N/A	1,2,3,5	Local, Visitor, Commuter, Area Traveler	F, C	Yes	
Encompasses VSA	Mohawk Valley State Heritage Corridor	Multiple Municipalities	N/A	1,2,3,5	Local, Visitor, Commuter, Area Traveler	S	Yes	
National Rivers Inventory								



Мар ID	Resource Name	Town/Village	Approximate Distance to Solar Arrays (Mile)	LSZ ⁴	Viewer Groups	Federal (F), State (S), County (C), or Local (L) Resource	Potential Visibility ¹
M13	Schoharie Creek ³	Glen, Florida,	1.54	5	Local, Visitor	F, C	No
Conservation	Easements						
N14A-N14D	NRCS - Wetlands Reserve Program (4 parcels)	Glen N14A Glen N14B Glen N14C Mohawk N14D	0.48 (closest point)	2,4	Local, Visitor	F	No
O15	NGO - Schoharie Land Trust (Dillenbeck Easement)	Glen	1.26	2,4	Local, Visitor	L	No
Other							
P16	Jesuit Cemetery	Glen	1.23	4	Local, Visitor	С	No
Q17	Printup Burial Ground	Glen	0.37	2	Local, Visitor	С	No
R18	Hall Family Cemetery (Former site of Wells Family Cemetery)	Glen	1.28	1	Local, Visitor	С	No
S19	Winnie School (Ilene Wagner's House)	Glen	0.25	1,2,3	Local, Visitor	L, C	Yes



Map ID	Resource Name	Town/Village	Approximate Distance to Solar Arrays (Mile)	LSZ ⁴	Viewer Groups	Federal (F), State (S), County (C), or Local (L) Resource	Potential Visibility ¹
T20	Saint Kateri National Shrine and Historic Site	Mohawk	0.70	2,3,4	Local, Visitor	L	Yes
U21	Rest Stop Overlook (Mohawk Area #3 Marker)	Mohawk	1.27	1,3,4	Local, Visitor	L	Yes
V22	Danascara Cemetery	Mohawk	0.95	2,3	Local, Visitor	С	No
Potential Envi	ronmental Justic	e Area					
See Revised Figure 4	Census Tract 727, Block Group 2	Glen	N/A	1,2,3,5	Local, Visitor, Commuter	S	Yes

¹Potential visibility is obtained from the viewshed analysis using topography, trees, and buildings only, per 19 NYCRRR Section 900.2.9(b)(1), simulations or by methods of onsite field verification.

²Also recognized as a National Historic Landmark per the National Park Service.

³Resource is also considered to be recreational.

⁴Please refer to Section 5.0 Landscape Similarity Zones for definitions of each LSZ.



Table 5, continued:

Map ID	USN	Resource Name	Viewer Groups	Distance (Miles)	Address	Town/Village	Federal (F), State (S), County (C), or Local (L) Resource	Potential Visibility
NRHP I	Listed Historic D	istrict						
1	19NR00026	Fultonville Historic District (345 Resources)	Local, Visitor	0.35	N/A	Fultonville	F, C	No
2	14NR06559 00104.000641 05744.000229 05744.000230 05744.000231 05744.000232 05744.000233 05744.000234 05744.000235 05744.000236 05744.000237 05744.000238 05274.000239 05274.000240	New York State Barge Canal Historic District: Fonda Terminal and Canal Shops ² (13 Resources)	Local, Visitor	0.78	N/A	Fonda	F	No
3	14NR06559	New York State Barge Canal Historic District: Mohawk River ^{2,3}	Local, Visitor	0.19 (closest point)	N/A	Multiple Municipalities	F	Yes
4	01NR01763 05705.000009 05705.000012	Glen Historic District (32 Resources)	Local, Visitor	0.22	N/A	Glen	F, C	Yes 01NR017 63



Map ID	USN	Resource Name	Viewer Groups	Distance (Miles)	Address	Town/Village	Federal (F), State (S), County (C), or Local (L) Resource	Potential Visibility 1
	05705.000072 05705.000078 05705.000079 05705.000081 05705.000082 05705.000083 05705.000087 05705.000088 05705.000089 05705.000090 05705.000091 05705.000092 05705.000093 05705.000094 05705.000095 05705.000096 05705.000097 05705.000099 05705.000100 05705.000101 05705.000102 05705.000103 05705.000104 05705.000105 05705.000106 05705.000106 05705.000106							05705.00 0012 05705.00 0092 05705.00 0094 05705.00 0095 05705.00 0100 05705.00 0101 05705.00 0102 05705.00 0103 05705.00 0104 05705.00 0105 05705.00 0106 05705.00 0106 05705.00 0106 05705.00 0106
	05705.000131 05705.000134							



Map ID	USN	Resource Name	Viewer Groups	Distance (Miles)	Address	Town/Village	Federal (F), State (S), County (C), or Local (L) Resource	Potential Visibility
NRHP I	Listed Historic S	ite						
5	90NR01535	Schoharie Crossing State Historic Site ³	Local, Visitor	1.99	Main Street	Florida	F	No
6	90NR01535	Schoharie Crossing State Historic Site (Recreational Park) ³	Local, Visitor	1.96	Hartley Lane	Glen	F	Yes
7	19NR00080 05707.000006	Danascara Place	Local, Visitor	0.93	662 Mohawk Drive	Mohawk	F	No
8	90NR01549	Old Montgomery Co. Courthouse	Local, Visitor	0.95	9 Park Street	Fonda	F, C	No
9	90NR01550	New Montgomery Co. Courthouse	Local, Visitor	1.16	58 Broadway	Fonda	F	No
10	05705.000071	Covenhoven House	Local, Visitor	0.92	141 Reynolds Road	Glen	F, C	Yes
11	NR73001207	Caughnawaga Indian Village and Castle Site	Local, Visitor	0.96	Hickory Hill Road	Mohawk	F, C	No
NRHP I	Eligible Historic	Site						
12	05705.000002	National Shrine of the North American Martyrs	Local, Visitor	1.15	Shrine Road	Glen	F, C	No



Map ID	USN	Resource Name	Viewer Groups	Distance (Miles)	Address	Town/Village	Federal (F), State (S), County (C), or Local (L) Resource	Potential Visibility
13	05705.000008	Auriesville Cemetery (Quackenbush Cemetery)	Local, Visitor	0.58	Valley View Drive	Glen	F, C	No
14	05705.000085	Knickerbocker Farm	Local, Visitor	1.94	208 Round Barn Road	Glen	F	No
15	05705.000110	Farm	Local, Visitor	0.57	129 Valley View Drive	Glen	F	No
16	05705.000123	Our Lady of Martyrs Shrine Gift Shop	Local, Visitor	0.92	Noeltner Road	Glen	F	No
17	05705.000046	Baird-Bennett House	Local, Visitor	0.23	871 Argersinger Road	Glen	F	Yes
18	05707.000054	Volkert Veeder- Ostrander House (Building D)	Local, Visitor	0.56	3810 Fonda Road West (NY-5)	Mohawk	F	Yes (Minimal)
19	05707.000055	Abraham Veeder House (Building E)	Local, Visitor	0.54	3666 Fonda Road West (NY-5)	Mohawk	F	Yes
20	05707.000056	Klock House	Local, Visitor	1.65	Fonda Road East (NY-5)	Mohawk	F	No
21	05707.000084	F,J & G Railroad bridge; 1868/1890 Warren-deck- truss	Local, Visitor	1.22	Route 334	Mohawk	F	No



Map ID	USN	Resource Name	Viewer Groups	Distance (Miles)	Address	Town/Village	Federal (F), State (S), County (C), or Local (L) Resource	Potential Visibility
22	05744.000012	Montgomery County Fairgrounds ³	Local, Visitor	1.08	Bridge Street	Fonda	F	Yes (Minimal)
23	05744.000025	Fonda House	Local, Visitor	0.95	56 West Main Street	Fonda	F, C	No
24	05744.000026	A. Doxtader House (Starin ind. school/garage)	Local, Visitor	0.96	46 West Main Street	Fonda	F, C	No
25	05744.000118	House	Local, Visitor	1.12	53 Broadway	Fonda	F	No
26	05744.000145	Lower Mill	Local, Visitor	0.90	1 Cayadutta Street	Fonda	F	No
27	05744.000153	Mills Terrace	Local, Visitor	1.02	2-8 West Prospect Street	Fonda	F	No
28	05744.000196	House	Local, Visitor	1.04	4 West Main Street	Fonda	F	No
29	05744.000221	Montgomery County Public Annex (former Fonda High School)	Local, Visitor	0.97	20 Park Street	Fonda	F, C	No
30	05744.000242	Fonda Speedway ³	Local, Visitor	1.11	Bridge Street	Fonda	F, C	Yes (Minimal)
31	N/A	Fultonville Cemetery &	Local, Visitor	0.48	Upper Mohawk Street	Fultonville	F, C, L	No



Map ID	USN	Resource Name	Viewer Groups	Distance (Miles)	Address	Town/Village	Federal (F), State (S), County (C), or Local (L) Resource	Potential Visibility
		Natural Burial Ground						
32	N/A	Van Epps – Starin Cemetery (Hoff & Shelp Cemetery)	Local, Visitor	0.56	Main Street	Fultonville	F, C	No
Octobe	er 2021 Historic A	Architectural Surv	ey Additio	nal Recomi	mended NRH	P Eligible Sites	4	
See Revis ed Figure 4 Sheet 4A	05744.00023 05744.000024 05744.000028 05744.000029 05744.000031 05744.000081 05744.000085 05744.000085 05744.000086 05744.000130 05744.000133 05744.000134 05744.000135 05744.000135 05744.000136 05744.000137 05744.000138 05744.000139 05744.000140 05744.000141	Fonda Main Street Historic District (23 Eligible Resources)	Local, Visitor	1.03	Main Street	Fonda	F, C	No



Map ID	USN	Resource Name	Viewer Groups	Distance (Miles)	Address	Town/Village	Federal (F), State (S), County (C), or Local (L) Resource	Potential Visibility 1
	05744.000143 05744.000196							
33	05744.000098	House	Local, Visitor	1.13	44 Broadway	Fonda	F	No
34	05744.000245	Fonda Cemetery (Old Caughnawaga Cemetery)	Local, Visitor	1.37	8 Cemetery Street	Fonda	F, C	Yes (Minimal)
35	05705.000137	House	Local, Visitor	0.99	621 Argersinger Road	Glen	F	No
36	0705.000154	Glen Village Cemetery	Local, Visitor	0.28	7 Logtown Road	Glen	F, C	Yes (Minimal)
37	05705.000132	Wyckoff Cemetery	Local, Visitor	0.48	NY-30A	Glen	F	Yes
38	05705.000141	Maple Avenue Cemetery	Local, Visitor	1.20	Maple Ave.	Glen	F, C	Yes (Minimal)
39	05707.000077	Tekakwitha Friary (H.D.F. Veeder House)	Local, Visitor	0.63	3642 Fonda Road West (NY-5)	Mohawk	F	No
40	05707.000118	Evergreen Cemetery	Local, Visitor	1.51	296 Martin Road	Mohawk	F, C	No
41	05707.000119	St. Cecilia Cemetery	Local, Visitor	1.41	Siebe Ln.	Mohawk	F, C	Yes
42	05744.000005	House	Local, Visitor	1.13	40 Broadway	Fonda	F	No
43	05744.000096	House	Local, Visitor	1.11	38 Broadway	Fonda	F	No



Map ID	USN	Resource Name	Viewer Groups	Distance (Miles)	Address	Town/Village	Federal (F), State (S), County (C), or Local (L) Resource	Potential Visibility 1
44	05744.000105	Reformed Church of Fonda and Parsonage	Local, Visitor	1.05	19-21 Broadway	Fonda	F	No
45	05744.000113	House	Local, Visitor	1.10	43 Broadway	Fonda	F	No
46	05744.000125	House	Local, Visitor	1.18	6 Court Street	Fonda	F	No
47	05744.000147	Mill House	Local, Visitor	0.93	8 Cayadutta Street	Fonda	F	No
48	05744.000118	House	Local, Visitor	1.07	31 Broadway	Fonda	F	No

¹ Potential visibility is obtained from the viewshed analysis using topography, trees, and buildings only, per 19 NYCRRR Section 900.2.9(b)(1), simulations or by methods of onsite field verification.

² Also recognized as a National Historic Landmark by the NPS.

³ Resource is also considered to be recreational.

⁴ Based on the historic architectural survey conducted within the APE which was determined to be 2 miles. Survey was conducted in July 2021. Refer to Revised Exhibit 9 for full details.



In summary, the following places may have the potential to view the proposed Facility. A positive declaration of visibility does not necessarily constitute profound visual impact. For example, a very small distinguishable percentage of a solar panel may result in a visual resource receiving "Facility visibility". Further details can be obtained regarding Facility visibility at identified resources in Section 10.1.1 and 10.1.2. These visual resources with predicted Facility visibility are listed as follows.

Federal Resources

- New York State Barge Canal Historic District: Mohawk River
- Erie Canalway National Heritage Corridor
- Glen Historic District, Glen
- Schoharie Crossing State Historic Site (Recreational Park)
- Covenhoven House, 141 Reynolds Road, Glen
- Baird-Bennett House, 871 Argersinger Road, Glen
- Volkert Veeder-Ostrander House (Building D), 3810 Fonda Road West, Mohawk
- Abraham Veeder House (Building E), 3666, Fonda Road West, Mohawk
- Fonda Cemetery (Old Caughnawaga Cemetery), 8 Cemetery Street, Fonda
- Glen Village Cemetery, 7 Logtown Road, Glen
- Wyckoff Cemetery, NY30A, Glen
- St. Cecilia Cemetery, Siebe Lane, Mohawk
- Montgomery County Fairgrounds/Fonda Speedway, Mohawk

State Resources

- NYS Snowmobile Trails (S71, S72, C7D, C7B)
- NYS Bicycle Route 5 (NY5S)
- Revolutionary Trail/NY5
- Mohawk Valley State Heritage Corridor
- PEJA Census Tract 727, Block Group 2

Local Resources

- Homestead of Capt. Albert C. Olmsted Marker (historical marker)
- Mohawk Area #3 Marker (Rest Stop Overlook; historical marker)
- Jail Limit Marker (historical marker)
- Western Supreme Buddha Temple
- Bellinger's Orchard
- Fonda Little League Park



- Winnie School (Ilene Wagner's House)
- Saint Kateri National Shrine and Historic Site

Montgomery County Scenic Byways

Several local roadways within the VSA are recognized in Montgomery County legislation as county scenic byways. These scenic byways are listed below and are discussed in detail within Section 10.1.1.4, Visibility of Solar Arrays from Public Roads. Furthermore, additional attention has been provided to a number of these resources through the development of LOS profiles and photo-simulations.

- Auriesville Road (CR 122) (See VP 42 photo-simulation; LOS L1 and L3 in Revised Attachment 3)
- <u>Fisher Road</u> (CR 118) (See VP 47 of Facility Photolog in Attachment 2; LOS L2 in Revised Attachment 3)
- <u>Hickory Hill Road</u> (CR 33) (See VP 92 of Facility Photolog in Attachment 2)
- Hyney Hill Road (CR 123) (See VP 25 of Facility Photolog in Attachment 2)
- <u>Ingersoll Road</u> (CR 117) (See VPs 44, 45, 68, and 69 photo-simulation in Revised Attachment 3)
- <u>Logtown Road</u> (CR 110) (See LOS L2 and photo-simulation VP 80 in Revised Attachment 3)
- Noeltner Road (CR 164) (See VP 36 of Facility Photolog in Attachment 2)
- Noeltner Spur (CR 166)
- Stone Arabia Road (CR 34)
- Van Epps Road (CR 116) (See VPs 45 and 98 photo-simulation in Revised Attachment 3;
 VPs 2, 3, 11, 45, and 97 of Facility Photolog in Attachment 2)



7.0 GIS AND 3D ANALYSIS FOR VISUAL IMPACT EVALUATION - METHODOLOGY

7.1 Viewshed Analysis

A viewshed analysis is a computerized GIS analytical technique that calculates and predicts potential visibility that may be expected for proposed action. It allows one to determine if and where an object, such as a solar array, can geographically be seen within a larger regional area. The viewshed model accounts for topography, vegetation, and the height of the solar panels. The results of the viewshed analysis, typically displayed over a USGS topographic map or aerial image, are combined with other sensitive location information such as historic places, national forests, or state parks, etc. Incorporating GIS-integrated data along with a viewshed analysis assists in understanding the potential for Facility visibility at sensitive receptors.

7.1.1 Methodology

To accurately assess visual impacts of the Facility, two distinct viewshed analyses were completed: one to assess predicted visibility of the solar arrays, and one to assess predicted visibility of the substation, POI switchyard, and associated transmission structures. These viewshed analyses were developed to evaluate the potential visibility of two distinct and proposed Facility infrastructure within the VSA which are detailed as follows:

- 1. <u>Solar Array Viewshed</u>: This analysis accounted for the tallest possible configuration of the solar arrays. The VIA herein utilized and evaluated a tracker racking system with solar array panel heights conservatively set to a value of 10 feet above finished grade at maximum tilt. Additional Facility components including inverters, sound walls, access roads, and perimeter fencing are represented in this viewshed model. The final resulting output identifies geographic areas from which viewers would potentially see all or some part of the proposed solar panels.
- 2. <u>Substation, POI Switchyard, and Transmission Structures Viewshed</u>: This viewshed analysis collectively assessed visibility from the substation, POI switchyard, and associated transmission structures, which are herein referred to as "POI Components". As mentioned in Section 2.0, one gen-tie line is proposed to connect the substation to the POI switchyard, and two discrete transmission lines are proposed to facilitate interconnection from the POI switchyard to the existing Marcy-New Scotland 345 kV transmission line. The heights and geographic position of the proposed transmission structures were included in the viewshed and range from 135 to 200 feet in height. The POI switchyard and substation are proposed in the immediate vicinity of the transmission structures. The tallest heights of the substations are identified as 70-foot lightning masts at the substation and 70-foot H-frame takeoff structures (which simultaneously serve as lightning masts) at the POI switchyard. Lower heights of various components within each substation were also incorporated into the viewshed model, for example, such as bus work (31 to 36-foot height) and bus support structures (31 to 36-foot height). Plans and sections of the POI Components are available in Revised Attachment 6 and Revised Exhibit 5.



Assumptions and Limitations of the Viewshed Model

The viewshed analysis identifies cells (image pixels) that contain elevation information and computes the differences along the terrain surface between an observer in the landscape and a target (e.g., a solar panel). This analysis assumes the viewer contains perfect observable conditions. Therefore, certain factors in the interpretation of results need to be considered:

- 1. The model assumes the observer to have perfect vision at all distances. Therefore, a certain amount of reasonable interpretation needs to be considered because of the limitations of human vision at greater distances or those atmospheric/meteorological conditions that may cause imperfect vision, such as haze or inclement weather. Additionally, an object is naturally smaller and shows much less detail at distances and will have less visual impact. These aspects cannot be conveyed with this analysis.
- 2. Because an area may show visibility, it does not mean the entirety of the Facility will be visible from that area. The viewshed analysis depicts areas of visibility over a regional area. It can only predict geographically on a map, areas where some part of the solar panels might be seen. It cannot determine if the entirety, or a portion of, the Facility is visible. Additionally, if visibility is occurring in an area, it may sometimes only be a result of glimpsing a portion of the Facility over undulating treetops, between gaps of trees, or visibility of the tops of panels and not a full view. Likewise, there may be understory tree gaps where there may be visibility of the Facility.
- 3. The model was developed with the assumption that a viewer would not see the panels if standing among trees in forested areas as it is assumed the tree canopy would preclude outward-looking views.

7.2 Line of Sight Analysis

LOS profiles provide the viewer with information that assists in examining the reasons why objects such as solar panels or substation components may have impeded views or why there may not be views to the Facility. The underlying topography of a sight line, in addition to vegetative obstructions, can be produced, as can an estimated amount of visibility of the upper portion of an object if it is visible.

LOS elevation profiles were completed to address state aesthetic resources, fulfilling 19 NYCRRR Section 900.2.9 (b)(1). This regulation states specifically that LOS be completed for statewide resources of concern. There are five state resources predicted to distinguish the Facility within the VSA, all of which were incorporated in the LOS analyses. Also, local resources were evaluated within the LOS profiles; three Montgomery County Scenic Byways were identified within the demarcated pathway of the LOS profiles.

To develop the LOS profiles, elevation data obtained for the Facility noted in Section 7.1.1 was used for the data source. ArcGIS Pro 3.0.2 and Global Mapper 23.0 were used to produce linear elevation profiles sampled across select sight lines for bare earth topography and for vegetation. The final LOS profiles were enhanced and embellished in Adobe Illustrator 2023. Section 10.2.2 provides a discussion of results and Revised Attachment 3 contains the profiles.



7.3 Photographic Simulations

Photo-simulations depict what the Facility is anticipated to look like post-construction against an existing conditions photograph. A Facility Photolog showing the photos acquired during site visits in April 2021, April 2022, and April 2023 is presented in Attachment 2, which is also accompanied by large-scale aerial maps depicting each photographed VP location (Revised Figure 3). The field photo effort attempted to provide the most unobstructed views possible from all cardinal directions (e.g., north, south, east, west) in areas where the viewshed maps predicted potential visibility. A select number of VP locations were then chosen for simulation, as described in Section 7.3.2 below. Simulations were developed using the methodology described in Section 7.3.1 below. To demonstrate a range of post-construction scenarios, the following simulations are provided for each simulated VP:

- Representative Simulation with 0 to 2 Year Landscaping (Leaf Off)
- Representative Simulation with 0 to 2 Year Landscaping (Leaf On)
- Representative Simulation with 5 Year Landscaping (Leaf Off)
- Representative Simulation with 5 Year Landscaping (Leaf On)

The developed simulations are presented in Revised Attachment 3.

7.3.1 Methodology

To develop the photo-simulations, Autodesk 3DS MAX 2022 visualization software was used to appropriately dimension a 3D model of the Facility onto a digital photograph from a select VP location. Using engineering specifications and drawings of the Facility obtained from TRC's design engineers, a representative 3D model of the solar layout was produced. The terrain elevation data (z value) needed to place the panels correctly on the surface of the earth was derived from the Light Detection and Ranging (LiDAR) sources noted in Section 7.1.1. Proposed grading elevations were then incorporated into the model. Using the engineering site plan and LiDAR terrain surface data in GIS, the x, y, z coordinates location of each proposed solar array was obtained and imported with the terrain surface into Autodesk 3DS MAX visualization software. A 3D model of individually proposed solar arrays was then physically constructed according to the solar panel specifications, tilt angle, and proposed racking system. The proposed arrays were modeled as bifacial single-portrait trackers with a height of 10 feet above finished grade with the array axis oriented in a north-south manner. The simulation model was further developed to position the viewer at the selected vantage point. For example, at any 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 were entered into the model along with other camera information. The model was further refined to precisely match the existing photograph by referencing LiDAR point cloud data against the landscape features identified within the photograph.

Subsequently, simulations with landscaping were produced from a computer-aided design (CAD) version of the proposed landscaping plan. The landscaping CAD files were produced in Autodesk



Civil 3D 2020 and obtained directly from the Facility Landscape Architect, then imported into the Autodesk 3DS MAX modeling environment. Each proposed tree and shrub species was then translated and built into 3D. Projected growth rates and heights of each species were then assigned using conservative values (see Table 13).

Autodesk 3DS MAX is capable of depicting physically accurate shadows and highlights on the model (Preetham et al. 1999). As such, during the field visits, each photograph recorded information such as geographic position, time, and date. These data typically exist as electronic information embedded in the respective digital photograph files. Subsequently, this information can be used to calculate the sun angle in the simulation software in order to represent lighting conditions for the time of day and year that is illustrated in a given photograph.

7.3.2 Viewpoint Selection for Photo-Simulations

VP selection criteria are established in 19 NYCRRR Section 900-2.9(b)(4) under (i), (ii), (iii), (iv), and (v). TRC conducted three site visits (on April 8, 2021, April 18, 2022, and April 14, 2023) to capture representative VP locations with applicability to the VP selection criteria set forth in the 94-c regulations. Specialized field crew strategically obtained photographs from discrete locations in the VSA in accordance with following regulatory requirements:

- (i) Unobstructed views or direct line-of-sight. Preceding the initiation of each conducted site visit, viewshed maps illustrating predicted Facility visibility within the VSA were prepared to facilitate the identification of vantage points containing direct line-of-sights to the Facility. While conducting each site visit, field verification methods were utilized while onsite to identify suitable VP locations with unobstructed views. This process involves identifying distinct and existing landmarks features (e.g., barn silos, buildings, clearing cuts, or transmission structures) on land within the Facility Site, to which is subsequently used as a visual reference to orient oneself to the Facility. To the extent practicable, representative VP locations were judiciously selected for the preparation of photosimulations from the most unobstructed views to the Facility. Examples of unobstructed views that were simulated include VPs 31, 38, 42, 44, 45, 58, 61, 68, 69, 80, 93, 94, and 98 (see Revised Attachment 3).
- (ii) Significance of viewpoints, designated scenic resources, areas or features. Sensitive resources were identified within the VSA and tabulated (see Table 4 and Table 5). This process involved a meticulous review of federal, state, and local places of interest that are accessible to the public, may experience high volume of public use, and exhibit aesthetic characteristics or qualities. Additional resources of county and local concern were incorporated into the tables subsequent of an information request sent to stakeholders on September 27, 2021 and April 20, 2023. Several municipal websites were also consulted to review planning documents for locally designated resources that occur in the VSA. The results of the resource inventory were then cross referenced with the viewshed results to quantify VPs near resources that may experience predicted visibility of the Facility. This criterion was then applied to the VP selection process, resulting in photo-simulations from VPs 31, 42, 44, 45, 61, 68, 69, 80, 93, 94, and 98 (see Revised Attachment 3).



- (iii) Level of viewer exposure. To the extent the Facility is visible, VP locations were identified from populated places where viewers may congregate and/or travel routes that may experience an increased number of public viewers. Publicly available AADT data provisioned by the NYSDOT was consulted to identify roadways experiencing high volumes of daily traffic (refer to Section 3.4 Transportation and Table 2). The U.S. Census Bureau 2020 Decennial Census was also referenced to select VPs from populated places (see Table 1A and 1B). Further information regarding population densities within the VSA can be found in Section 3.1 Community/Residential. Representative VPs simulated from populated places and/or places of higher user activity where visibility may occur are listed as VPs 61, 80, 93, and 94 (see Revised Attachment 3). Level of viewer exposure is additionally discussed throughout the VIA.
- (iv) Proposed Land Uses. Proposed non-Facility development information was investigated and identified within the VSA. These data were extracted from municipal meeting minutes filed online from various town, village, and county websites. Information pertaining to proposed non-Facility land use can be found in Section 3.6, Publicly Known Proposed Land Uses. An applicable cumulative view of the proposed Facility and utility development unrelated to the Facility are depicted in VPs 38, 42, 44, 61, 80, 93, 94, and 98 (see Revised Attachment 3). Further discussions of cumulative effects are provided in Section 13.0.
- (v) Assessment of visual impacts pursuant to the requirements of adopted local laws or ordinances. As outlined in Section 1.2, the Town of Glen's Local Law No. 5 of 2022 requires that a visual assessment will use computer modeling and photography showing existing conditions to thoroughly assess the visibility of the solar array from "key observation points" also known as VPs, to be approved by the Town of Glen Planning Board. As mentioned in Section 6.1, visual stakeholders were provided the opportunity to append additional VP locations and/or recommend existing VP locations as candidates for developing photo-simulations. The Town of Glen was explicitly solicited for the recommendation of candidate photo-simulations (please see Attachment 4 for stakeholder correspondence). On July 27, 2023, the Town Supervisor responded to the information request via letter but did not elect VP candidates for photo-simulations due to "[the belief that] any offerings of additional location of photo opportunities will unlikely alter of infuse any new revelations of appreciable visual impact". Photographic overlays, also referred to as photo-simulations, or "simulated views," have been completed with landscaping and are accessible in Revised Attachment 3. The photo-simulation methodology is provisioned in Section 7.3.1 and a discussion of the photo-simulations is available in Section 10.2.1. Notwithstanding, the Applicant provided a photo-simulation from a non-participating residence (see VP 30 from Egelston Road; available in Revised Attachment 3) in conformance with the Glen Solar Law.



8.0 VIEWER CHARACTERISTICS

It is important to evaluate the characteristics of potential viewers to understand the importance and effect of visual change. There are a several factors that may influence an observer's visual attentiveness of the environment and is dependent on the viewers elevation, the types of activities pursued, the frequency of the viewing action, and the duration of view. The result of evaluating viewer characteristics provides useful information about the public's anticipated level of sensitivities to a proposed action.

Overall, higher degrees of visual sensitivity are correlated with areas where people live and with people who are engaged in outdoor recreation or participate in scenic driving. Conversely, areas of industrial or commercial use are considered to have low to moderate visual sensitivity because the activities conducted are not significantly affected by the quality of the environment. Views and viewer groups are discussed throughout the VIA in the context of aesthetic resources, viewshed visibility results, and Facility simulations.

These concepts are applied when evaluating the visual landscape and assessing the importance of a VP location if within in an area of visibility. Consequentially, the identification of viewer groups is established and defined below.

Identification of Viewer Groups

Types of viewers will vary by geographic region, as well as by travel route or use areas, such as a developed recreation site, urban area, or a residential property. Viewer groups are identified below and include:

- Local Constituency: This group represents residents inhabiting and expending a
 significant amount of time in the local area and/or surrounding communities. This group
 may include local residents and members of groups to which the local area is important in
 different ways. Also included are those who may occupy a camp or summer home in the
 area during the warmer seasons.
- Commuter/Area Traveler Constituency: This group represents individuals who use or are generally restricted to travel corridors that are destination oriented toward places of employment. This group generally has transient short duration view and also includes area travelers which are people strictly engaged in inter-regional or out of state travel for business, leisure, vacation, or other purposes.
- Visitor or Recreational Constituency: This group represents individuals who visit the area to experience its natural appearance, cultural landscape qualities, recreational opportunities, or for commercial/business activities. Visitors may be of local, regional, or national origin.



The following additional viewer characteristics are applicable to each defined viewer group:

<u>Viewer Sensitivity</u> – Viewer sensitivity is distinguished among viewers in residential, recreational/open space, tourist commercial establishments, and workplace areas, with the first two typically experiencing high sensitivity to visual change.

<u>Number of viewers</u> – The degree of sensitivity is typically correlated to the number of viewers affected by a change. Information about precise number of viewers is not always readily available, however it can be reasonably assumed based on presence of development, recreational space, accessibility to public spaces, and through other data sources as follows.

- Table 1A. Population of Communities within VSA (see Section 3.1)
- Table 1B. Housing Density of Communities within VSA (see Section 3.1)
- Table 2. Available Traffic Data within the VSA (see Section 3.4)

It is reasonable to estimate if a particular location is a high public use area or if it is a location that is less frequently visited, or more inaccessible where the public is not expected to be present (such as swamps or places absent in amenities). Generally, a village or city typically contains a higher concentration of viewers than suburban or rural places.

<u>Duration of view</u> – Duration of view is the amount of time a viewer would actually be looking at a particular landscape feature. Depending on the viewer activity (see below), the duration of view may be extended (static or stationary view), or it may be momentary (fleeting or transient view). Typically, a momentary duration of view involves mobilization of a viewer.

<u>Viewer activities</u> – Viewers within the VSA will experience different viewing times of the Facility depending on the priorities and objectives of an individual's activity. Distinct viewing durations of the Facility can be estimated by the types of viewer groups identified within a particular location. For example, fleeting views or those traveling by vehicle are expected to have views endured for a lesser amount of time whereas those who may be in a fixed position (e.g., fishing, camping, resting on a park bench) may experience a longer duration of view.

<u>Context of Viewer</u> – The characteristics and quality of an observer's visual environment may influence or diminish the impression of a visual change. Typically, a visual change may not be as compelling if the change is harmonious with the character of the existing environment. Whereas existing man-made infrastructure or development within a landscape may have the propensity to absorb or visually distract a viewer's attention to visual change.



9.0 VISUAL IMPACT RATING METHODOLOGY

Per the requirements of 94-c, a professional rating board was formed and established for the rating of potential visual contrast introduced by the Facility, scenic integrity of the landscape, and the evaluation of the effects pertaining to the proposed landscape mitigation surrounding the Facility. TRC has developed a visual impact rating form for use in comparing Facility photosimulations as required by 94-c. This form includes 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 U.S. Army Corps of Engineers, March 1988 (Smardon, et al., 1988).
- National Park Service Visual Resources Inventory View Importance Rating Guide, 2016 (NPS, 2016c).
- United States Department of Agriculture (USDA) Forest Service, Landscape Aesthetics: A Handbook for Scenery Management. USDA Forest Service Agriculture Handbook No. 701, 1995 (USDA, 1995).

The visual impact rating form was developed for efficient and streamlined use with projects that undergo state environmental permitting processes. To date, Riverside Solar and Shepherd's Run Solar applications have successfully used this rating system and received a notice of complete application determination letter from ORES. This form utilizes a numerical rating system for the assessment of VP locations and is meant to accompany the VIA. These VP locations, prepared as photo-simulations, are rated against the following conditions:

- 1. "Existing Conditions" (before),
- 2. "Proposed Conditions" (after) photo-simulations with 0 to 2-year landscaping post-construction.

The visual impact rating form evaluates photo-simulations with proposed landscape screening 0 to 2 years after construction and with proposed landscape screening 5 years after construction, as it enables assessment of the mitigation conditions upon Facility operation. When conducting visual impact rating with the visual impact rating form, it is assumed that visual resource inventories, terrain analyses, development of LSZs, and viewshed analyses have already been performed as part of the VIA in accordance with state regulatory requirements or other visual policy.

To evaluate the effects and visual change of the Facility, a professional panel of raters is instructed to complete four parts to the rating form:

Part 1 – Visual Contrast Rating of Facility With 0 to 2 Year Mitigation rates the Facility as
it contrasts against compositional visual elements of the VP scene. This includes
compositional contrasts against the existing and natural environment such as vegetation,
water, sky, landform, or structures. The higher the rating total, the higher the contrast.



- Part 2 Viewpoint Sensitivity Rating rates the sensitivity of the VP location, which
 inherently considers the importance of the VP (if it falls within a visual resource area),
 viewer groups, duration of view, if it is a high use area, or if there is the presence of water.
 The higher the rating total, the more sensitive the VP is.
- Part 3 Scenic Quality should not be confused with quantifying visual contrast, but rather
 it serves as an evaluation of the existing view to identify any qualities of scenic integrity.
 Part 3 is a qualitative evaluation of strictly the existing conditions without the influence of
 the Facility.

Part 4 – Visual Contrast Rating of Facility With 5 Year Mitigation rates the Facility's contrast after suitable time (5-years) is allowed for the maturation of landscaping. This includes compositional contrasts against the existing and natural environment such as vegetation, water, sky, landform, or structures. The higher the rating total, the higher the contrast. The rating parts are discrete and never combined to a final value or result. Each part is averaged amongst the raters and the results are discussed. In example, Part 1 - Visual Contrast Rating of the Facility would need not be combined and averaged with Part 3 - Scenic Quality. Each part of the form includes several visual rating elements which are individually assessed with the following rating scale:

Table 6A. Visual Element Rating Scale

R	ating Scale	Degree of Contrast Criteria			
0	None	The element of contrast is not perceived or easily detected.			
0.5	Very Weak				
1	Weak	The element of contrast can be seen but does not attract attention.			
1.5	Weakly Moderate				
2	Moderate	The element of contrast begins to attract attention and begins to dominate the characteristic landscape.			
2.5	Moderately Strong				
3	Strong	The element of contrast demands attention, will not be overlooked, and is dominant in the landscape.			

The individual ratings for each visual element are then summed, providing the total rating for that part.

Under Part 1, there are nine elements (see Revised Attachment 5) to rate, resulting in a total possible rating ranging from 0 to 27. When the rating scale outlined in Table 6A is rescaled to account for the total possible rating across the nine categories, the scale is as follows:



Table 6B. Part 1 Visual Contrast Rating Scale

Visual Contrast Rating Scale				
0	None			
0 to 4.5	Very Weak			
4.5 to 9	Weak			
9 to 13.5	Weakly Moderate			
13.5 to 18	Moderate			
18 to 22.5	Moderately Strong			
22.5 to 27	Strong			

Under Part 2, there are eight elements (see Revised Attachment 5) to rate, resulting in a total possible rating ranging from 0 to 24. When the rating scale outlined in Table 6A is rescaled to account for the total possible rating across the eight categories, the scale is as follows:

Table 6C. Part 2 Viewpoint Sensitivity Rating Scale

Viewpoint Sensitivity Rating Scale					
0	None				
0 to 4	Very Weak				
4 to 8	Weak				
8 to 12	Weakly Moderate				
12 to 16	Moderate				
16 to 20	Moderately Strong				
20 to 24	Strong				

Under Part 3, only one element (see Revised Attachment 5) is rated, resulting in a total possible rating ranging from 0 to 3. Thus, the total possible rating for Part 3 is scaled as follows:

Table 6D. Part 3 Scenic Quality Rating Scale

Scenic Quality Rating Scale				
0	None			
0 to 0.5	Very Weak			
0.5 to 1	Weak			
1 to 1.5	Weakly Moderate			
1.5 to 2	Moderate			
2 to 2.5	Moderately Strong			
2.5 to 3	Strong			



Under Part 4, there are nine elements (see Revised Attachment 5) to rate, resulting in a total possible rating ranging from 0 to 27. When the rating scale outlined in Table 6A is rescaled to account for the total possible rating across the nine categories, the scale is as follows:

Table 6E. Part 4 Visual Contrast Rating Scale

Visual Contrast Rating Scale					
0	None				
0 to 4.5	Very Weak				
4.5 to 9	Weak				
9 to 13.5	Weakly Moderate				
13.5 to 18	Moderate				
18 to 22.5 Moderately Strong					
22.5 to 27	Strong				

In completing the Visual Impact Rating for the VIA, three panelists were chosen to evaluate and rate Facility simulations from 13 VPs. All three panelists have been trained in the field of landscape architecture and panelist qualifications can be found in Revised Attachment 5.

Initial training on how to use the visual impact rating form and the intention of each visual element rating was provided to each panelist. Facility location information, such as a Google Earth KMZ file, was provided to allow the panelist to better understand and visualize the environment around the VP that otherwise might not have been captured in the photo itself. Using the aerial imagery and terrain features of the Google Earth software simultaneously with "street view" capabilities, each reviewer was able to discern if there were other residences or vegetation around the viewer while also offering the panelist to view the camera location from different perspectives. The panelist then applied the ratings singularly and independently without consultation with any other party.

Revised Attachment 5 provides more comprehensive guidelines on how the contrast ratings were assessed and applied within each category. Revised Attachment 5 also includes a description of the methodology used in the rating process, as well as panelist qualifications and the completed evaluation forms for each simulated VP. Results of the Visual Impact Rating are discussed in Section 10.3.



10.0 VISUAL IMPACT ANALYSIS RESULTS

10.1 Viewshed Results and Discussion

The viewshed analysis showing areas of potential Facility visibility can be found in Figures 3, 4, and 5. As noted in Section 7.1.1, two viewshed analyses were performed. One analysis was completed for solar arrays and supporting infrastructure, and a second discrete viewshed was performed to ascertain potential areas where the substation, POI switchyard, and proposed transmission structures are predicted to be visible. This analysis considered the lowest to tallest substation equipment (36 to 70.83 feet tall) such as h-frame tap structures, bus work (bus support structures and bus), transformers, and lightning masts. Shorter utility components (i.e., less than 36 feet tall) were also entered into the viewshed analysis. Additionally, proposed transmission structures were entered into the viewshed with heights of 135 to 200 feet above ground level. Refer to Section 7.1.1 for additional information regarding viewshed methodology.

10.1.1 Viewshed Results for Solar Arrays

The solar array viewshed analysis presented in Revised Figure 4 indicates that limited visibility of the proposed solar arrays and supporting infrastructure is expected within the VSA. The results presented herein have been amended to reflect the new design and all soundwalls as necessary, based Revised Attachment 1 – Site Plan. As indicated by the viewshed results (see Revised Figure 4), a total of 18.92% of limited predicted visibility is found within the VSA. In general, predicted visibility may constitute a view of a solar array at a proximal distance, or it may only be a small fragment of the top of a solar panel at a great distance away. Therefore, the mere presence of predicted visibility should not always be indicative of adverse visual impact. No areas within the VSA are predicted to have full visibility of the Facility's solar arrays. Full visibility is defined as an unobstructed view to the full extent of the Facility.

Of the visibility that is expected, much of this visibility occurs in focused locations within and immediately adjacent to the Facility Site inside of Distance Zone 1 (see discussion of Distance Zones in Section 10.1.1.1 below). Approximately 6.69% of the 18.92% of predicted visibility within the VSA occurs on land owned by participating landowners within the Facility Site. The remaining 12.23% of predicted visibility occurs on non-participating parcels throughout the VSA.

Sections 10.1.1.1 through 10.1.1.4 below provide additional discussion of the solar array viewshed results. Section 10.1.1.1 provides a more detailed discussion of the percentages of land area, including LSZs and Distance Zones, that may experience Facility visibility as determined by the solar array viewshed analysis. Section 10.1.1.2 provides a discussion of predicted visibility at identified resources as determined by the solar array viewshed analysis. Section 10.1.1.3 provides a discussion of predicted visibility at additional local resources as determined by the solar array viewshed visibility analysis. Section 10.1.1.4 provides a discussion of predicted visibility at public roadways as determined by the solar array viewshed analysis.



10.1.1.1 Viewshed Results of Solar Arrays within Distance Zones and LSZs

Potential solar array visibility within the VSA as it relates to Distance Zones and LSZs is discussed below.

Several LSZs were identified within the VSA as Zone 1 Agricultural, Zone 2 Forested, Zone 3 Developed, Zone 4 Open, and Zone 5 River Corridor (see Revised Figure 2 for a map depicting the LSZs within the VSA). Section 5.0 defines, describes, and details methodology used to classify the LSZs. Visibility results of the solar arrays can be quantified to understand how potential visibility relates to each LSZ. According to Table 7, LSZ Zone 1 Agricultural is prevalent within the VSA (approximately 54% of VSA), where 17.13% of a total of 18.92% of solar panel visibility is predicted to occur, whereas Zone 2 Forested comprises approximately 32% of land in the VSA, where only 0.61% visibility is predicted. The remaining LSZ Zone 3 Developed (10.4% of land in VSA), Zone 4 Open (1.6% of land in VSA), and Zone 5 River Corridor (2.3% of land in VSA) are smaller contributors to the landscape where a small amount of visibility was predicted as noted below:

- LSZ Zone 3 Developed (1.0% solar panel visibility in VSA)
- LSZ Zone 4 Open (0.14% solar panel visibility in VSA)
- LSZ Zone 5 River Corridor (0.03% solar panel visibility in VSA)

These data for Zones 3, 4, and 5 suggest that a very insignificant amount of predicted visibility (1.17%) may occur in sensitive locations, such as developed areas (villages, residential, commercial, etc.), open areas (parks, cemeteries, greenspace, etc.) and rivers (Mohawk River and Schoharie Creek).

The percentage of solar panel visibility was also quantified for Distance Zones in the VSA (see Table 8). As indicated in Table 8, Distance Zone 1 contains the highest percentage of potential solar array visibility (12.19% of VSA), which generally correlates with LSZ Zone 1 Agricultural (17.13% of predicted visibility). Therefore, rural residential viewers simultaneously within the LSZ Zone 1 Agricultural and Distance Zone 1 may have the opportunity to view the Facility, however, existing topography and/or forested vegetation (LSZ Zone 2 Forested) found in between these zones may preclude views to the Facility. Photo-simulations representative of Distance Zone 1 are provided as VPs 31, 38, 42, 44, 45, 68, 69, 80, and 98. These simulations received average contrast ratings with 5-year landscaping ranging from very weak to moderate Consequentially, Distance Zone 1 is anticipated to contain variable visibility to the Facility. To reduce the visual appearance of the Facility, vegetative landscaping is proposed around the security fencing of the Facility to minimize visibility where existing vegetation is unavailable, as a result, visibility within Distance Zone 1 and LSZ Zone 1 Agricultural will likely be reduced as the landscaping matures and attains heights comparable to the solar panels.

In contrast to Distance Zone 1, Table 8 shows that 6.73% of solar panel visibility was predicted within Distance Zone 2. LOS profiles L1, L2, and L3 were prepared from Distance Zone 2 and demonstrate that a small number of solar arrays are seen, however, the profiles also demonstrate that existing topography and forested vegetation (LSZ Zone 2 Forested) obscures most direct



views to the solar arrays. As shown in Table 7, LSZ Zone 1 Agricultural contains the most concentration of predicted solar array visibility (17.13% of the total of 18.92%). This data suggests visibility is prevalent in LSZ Zone 1 Agricultural when within Distance Zone 2. The Photosimulations prepared for VPs 58, 93, and 94 were prepared from these zones and the average contrast ratings of the Facility with 5-year landscaping from the VPs ranges from very weak to weak. The VP 61 photo-simulation was also prepared from Distance Zone 2 and conveys a similar result with an average contrast rating of weak (6.2). Consequentially, the results of these above analyses conclude that predicted visibility of solar arrays within Distance Zone 2 is anticipated to be relatively minor.

Table 7. Percent Visibility of Arrays within LSZs in the 2-Mile VSA

LSZ	Total LSZ Square Miles	LSZ Square Miles of Visibility	% Visibility within LSZ	% Visibility within VSA
Zone 1 Agricultural	23.6	7.53	31.9%	17.13%
Zone 2 Forested	14	0.27	1.9%	0.61%
Zone 3 Developed	4.6	0.44	9.6%	1.0%
Zone 4 Open	0.7	0.061	9.1%	0.14%
Zone 5 River Corridor	1.1	0.015	1.4%	0.03%
Total	43.95	8.32	-	18.92 % ¹

¹6.69% of the 18.92% total visibility in the VSA occurs on lands belonging to participating landowners while 12.23% of total visibility in the VSA falls within land belonging to non-participating landowners.

Table 8. Percent Visibility of Arrays within Distance Zones in the 2-Mile VSA

Distance Zone	Total Area Comprising Distance Zone Square Miles	Visibility Within Distance Zone Square Miles	% Visibility Within Distance Zone	% Visibility Within Full VSA
Zone 1 0-0.5 Miles	12.3	5.36	43.%	12.19%
Zone 2 0.5-2.0 Miles	31.6	2.96	9.36%	6.73%
Total	43.9	8.32	-	18.92%¹

¹6.69% of the 18.92% total visibility in the VSA occurs on lands belonging to participating landowners while 12.23% of total visibility in the VSA falls within land belonging to non-participating landowners.



10.1.1.2 Visibility of Solar Arrays at Identified Resources

The viewshed analysis presented in Revised Figure 4 specifies that 35 out of 132 visual resources (see Tables 4 and 5) received a prediction of visibility based on the Facility's solar array viewshed. The distinction of Facility visibility at a select resource should not be confused with a declaration of visual impact nor does it immediately constitute profound adverse impact. Therefore, the collective results of visibility must be reviewed thoroughly before a conclusion is formed.

96 out of 133 visual resources listed in Tables 4 and 5 are predicted to have no visibility of the Facility.

Of the 37 visual resources that may discern some portion of the Facility, 18 resources were proposed by local or county constituents. Also as indicated below and in Table 5, there are 2 NRHP listed historic districts, 2 individually NRHP listed historic sites, and 11 eligible historic sites with potential Facility visibility as determined through the viewshed analysis.

In conformity with 19 NYCRRR Section 900-2.9(a)(10), the following resources listed in Table 5 are further described below:

Federal Resources:

New York State Barge Canal Historic District: Mohawk River (14NR06559)

In 2014, The New York State Barge Canal was listed on the National Register of Historical Places. This historical district encompasses 450-miles of waterway and includes four branches of the state's canal system: Erie, Champlain, Oswego, and Cayuga-Seneca canals. The extensive canal system is recognized for its significant work of twentieth century engineering and construction that shaped transportation and commerce for nearly half a century.

The New York Barge Canal Historic District meanders through the VSA along the Mohawk Valley lowlands in an east-to-west direction. A small, isolated band of potential Facility visibility is located where the Schoharie Creek exchanges into the Mohawk River. A LOS profile (L1; see Revised Attachment 3) was prepared to further evaluate the degree at which the Facility may been seen from this visual resource. As illustrated by the LOS L1 profile, a minor number of solar arrays may be discernible from elevated terrain, however a majority of the Facility is indistinguishable behind a large forest located 2 to 2.5 miles from the observer. Moreover, at an appreciable distance of 3.48 miles from the viewer to the Facility, the scale of the solar arrays would be dwarfed by the full extent of the visible landscape. Potential viewers, although very few may even perceive the Facility at this distance, may be recreationally boating or paddling along the Mohawk River where activities are generally limited to warmer seasons when leaf-on conditions of existing vegetation would provide enhanced screening of the solar arrays.



Erie Canalway National Heritage Corridor

The Erie Canalway National Heritage Corridor expands 524-miles and encompasses 4,834 square feet of land in over 23 counties. Enacted by Congress in 2000 as an official designated National Heritage Corridor, the Erie Canalway National Heritage Corridor includes the Erie, Cayuga-Seneca, Oswego, and Champlain Canals and their historic alignments. The Corridor is recognized as shaping New York as a premier commercial and financial center, as well as having contributed to the state's culture, history, and commerce.

The Erie Canalway National Heritage Corridor encompasses and extends beyond the VSA, where photo-simulations and LOS profiles have been prepared. Please see Revised Attachment 3 to review the results of the photo-simulations and LOS profiles, as well as Section 14.0 for the Summary Conclusions of visibility.

Glen Historic District (01NR01763) (17 individual historic resources)

The Glen Historic District is located immediately south of the Facility Site. Several individual NRHP listed historical resources are within this district. Please refer to Revised Exhibit 9 Cultural Resources for more information pertaining to each listed historical resource within the Glen Historic District.

The Glen Historic District encompasses most of the Hamlet of Glen where partial solar array visibility is predicted to occur. According to the solar array visibility results (see Revised Figure 4), a subset of NRHP listed historical resources within the historic district may experience limited Facility visibility. Two representative photo-simulations (VPs 31 and 80; see Revised Attachment 3) was prepared from the vicinity of these resources to illustrate the potential effects of the Facility. The results of the photo-simulations suggest that the Facility will not demand viewer attention, nor will the Facility discount the visual qualities of the Glen Historic District. Moreover, proposed landscaping will soften the appearance of the Facility, especially during seasons that support the additional screening benefit of full foliage. The presence of existing development within the landscape should also be considered when assessing visual change. For instance, when viewing the existing condition photographs, existing man-made structures can be seen contrasting with the background. As depicted in the photograph, a blue metallic roof atop a commercial building in the center of the VP 80 image has the propensity to visually detract attention away from the background environment. Several existing transmission structures are distinguishable as they intersect and contrast with dark hues of the background. Consequentially, due to the minimal appearance of the Facility because of viewing distance of observer to the solar arrays, the topography's ability to obstruct views, existing development, and proposed landscaping, the Facility will not diminish the aesthetic value of the Glen Historic District. As mentioned in Section 6.0, on July 14, 2023, OPRHP determined there will be "no above ground concerns, as the solar array visibility from the Glen Historic District will be limited".



Schoharie Crossing State Historic Site (Recreational Park) (90NR01535)

The NRHP-listed Schoharie Crossing State Historical Site contains a recreational park positioned immediately west of Schoharie Creek. This park serves as an amenity to the larger Schoharie Crossing State Historic Site which is directly east across the Schoharie River. The park is a public resource that offers amenities such as picnic areas, a playground, ample parking space, and a hard surface boat launch.

A minor amount of Facility visibility is forecasted within the park's greenspace. Because of the large distance to the nearest solar array (2 miles) and the substantial amount of existing forested vegetation located intermittently between the park and the Facility Site, it is unlikely that the Facility would be perceived by visitors. In order to potentially view the Facility from the park, viewers would need to halt movement and carefully direct focus and attention in a southwest orientation to the distant landscape (please refer to the VP 63 photographs in Attachment 2 – Facility Photolog). This would typically not occur as viewer attention will be directed to the park's amenities and the Schoharie Creek. Therefore, recreational users and visitors to the Schoharie Crossing State Historical Park are not expected to be affected by the Facility.

Covenhoven House, 141 Reynolds Road, Glen (05705.000071)

The Covenhoven House is privately held property, therefore public access is unavailable. This NRHP eligible resource is predicted to receive a partial view of the Facility from the northwest portion of the property. A representative photograph was captured in proximity to this resource and is available as VP 26 of the Facility Photolog (see Attachment 2). LOS L2 (see Revised Attachment 3) was prepared to further evaluate the effect of visibility from this resource. As described in Section 10.2.2.2, the result of the LOS L2 concludes that a minor number of solar arrays may be distinguishable above treetops, however, because of the observation distance to the limited visible portion of the Facility (approximately 1.5 miles), it is unlikely to be noticed by the average viewer.

Baird-Bennett House, 871 Argersinger Road, Glen

The Baird-Bennett House is a NHRP eligible private property located on Argersinger Road in the Town of Glen; therefore, the public is not permitted to access the property and viewers are limited to the landowner. From the property, filtered visibility of the solar arrays is anticipated due to the presence of several large mature deciduous trees bordering the dwelling. It is anticipated that the closest solar array, due 0.22 miles east of the property, may be discerned, however, vegetative landscaping is proposed along the western edge of the solar array fencing to screen views from this property.

Volkert Veeder-Ostrander House (Building D), 3810 NY5, Mohawk

The Volkert Veeder-Ostrander House (Building D) is a NRHP eligible property located off NYS Route 5 and is adjacent to Martin Road within the Town of Mohawk. A small area of predicted visibility is identified immediately east of the house and near the front of the lawn. From this limited area, the nearest solar arrays are approximately 0.56 miles away on the crest of a hill where taller



existing transmission structures are located. A representative example of potential visibility can be obtained from the VP 93 photo-simulation (see Revised Attachment 3), where a filtered view through foreground vegetation to a dark, shadowed swathe, is introduced at the hilltop. This shadowed swathe replicates the existing patterns of dark stretches of low-lying shrub/scrub vegetation within the photo. During seasons that support leaf-on conditions, the combination of existing vegetation and proposed landscaping will fully screen the Facility. Since the visual change is considered relatively minor from this vantage point, viewers, whether they are traveling or residing by this section of NY5, are very unlikely to be visually affected by the Facility.

Abraham Veeder House (Building E), 3666, NY5, Mohawk

The Abraham Veeder House (Building E) is a NRHP eligible property located off NYS Route 5 in the Town of Mohawk. Visibility of the Facility is predicted to occur approximately 23 feet east from the Abraham Veeder House within the resident's property. The solar arrays are not predicted to be visible from most of the property where the residence and ancillary buildings are found. A representative simulation (VP 94; see Revised Attachment 3) was prepared from an abutting property identified as the Saint Kateri and National Shrine Historic Site. VP 94 demonstrates that a limited portion of the solar arrays will be discernible from the crest of a hill in the distance. Since the VP 94 simulation reflects a viewer elevation of 344 ASL and the general area of predicted visibility at the Abraham Veeder House is at an elevation of 281 ASL, the overall amount of solar panel discernibility would be less than what is presented in the VP 94 simulation. Since the area of predicted solar array visibility is not adjacent to the eligible dwelling, nor is the property publicly accessible, and because the impression of the solar arrays from this location is relatively minor, consequentially, a negative visual change is not expected at this resource.

Fonda Cemetery (Old Caughnawaga Cemetery), 8 Cemetery Street, Fonda

The Fonda Cemetery is a NRHP eligible resource located on Cemetery Street in the Village of Fonda. A representative photograph was obtained from the most unobstructed vantage point from within the cemetery grounds, see VP 95 of the Facility Photolog in Attachment 2. Minimal Facility visibility is predicted to occur in a single isolated area within the cemetery where a LOS profile (see LOS L3 of Revised Attachment 3) was performed. The LOS illustrates that at a viewing distance of approximately 4 miles, a small number of solar arrays were detected within the landscape. However, at this distance a substantial extent of the landscape enters the periphery of vision where even structures or dwellings may be difficult to clearly identify. As predicted visibility at the cemetery is isolated and limited, and because of the extensive viewing distance to the Facility (4 miles), potential viewers within the Fonda Cemetery are not expected to discern the Facility and visitation experience at the cemetery will remain unaffected.

Glen Village Cemetery, 7 Logtown Road, Glen

The Glen Village Cemetery (NRHP eligible) is located on Logtown Road approximately 1,000 feet west of the Hamlet of Glen. Solar array visibility is generally predicted to occur on the periphery of the cemetery due to the lack of existing mature coniferous trees which are only present within the center of the cemetery. With the closest solar array at approximately 0.26 miles to the north-northeast, only a small partial sighting of the solar array would be perceivable from the cemetery's



eastern property line due to the screening effects of an existing large swath of forest located between the viewer and solar arrays. Notwithstanding the above, vegetative landscaping is proposed at this solar array to screen the Facility. A LOS profile (L2; see Revised Attachment 3) was prepared from a small gap in vegetation within the Glen Village Cemetery to a solar array approximately 0.9 miles to the northwest. As shown from the LOS, solar arrays may be distinguishable above distant forest, however, due to distance, viewers would need to actively seek out the Facility in order to identify it within the larger landscape. Therefore, since visibility is anticipated to be relatively minor, visitors to the Glen Village Cemetery are not expected to perceive the Facility.

Wyckoff Cemetery, NY30A, Glen

Wyckoff Cemetery is located south of the Hamlet of Glen on NYS Route 30A, within the Town of Glen. Potential visibility may occur in a small southern portion of the cemetery. The LOS L2 profile (see Revised Attachment 3) is delineated within 500 feet of the Wyckoff Cemetery on NY30A. At to the NY30A location within the LOS L2 profile, mostly filtered views of the Facility through existing foreground vegetation may be perceived at approximately 1.2 miles from the observer to the solar arrays, but it is unlikely to be noticed by viewers at the cemetery because of the screening effect of foreground vegetation found adjacent to the cemetery. This is in addition to the far distance (1.2 miles) that greatly reduces the potential of the Facility being discerned. It is anticipated that the visitation experience at the cemetery will remain unaffected.

St. Cecilia Cemetery, Siebe Lane, Mohawk

St. Cecilia Cemetery is located north of the Facility and is in proximity to the Village of Fonda. The closest solar array is approximately 1.4 miles south-southwest of the cemetery. This particular solar array is located within open agricultural fields that are surrounded by tree hedgerows with clusters of mixed forest. Within the cemetery, there may be a potential to view the Facility from the center of the property (see Revised Figure 4). The Facility may be discerned from the cemetery, but the likelihood of perceiving change is low as the viewing span (1.4 miles from observer to solar arrays) and existing vegetation around the solar array will screen the view and reduce the presence of visual change.

State Resources:

NYS Snowmobile Trails (S71, S72, C7D, C7B)

Four NYS snowmobile trails (S71, S72, C7D, C7B) within the VSA may experience variable and transient visibility of the Facility. Limitations affecting viewer accessibility to these trails should be considered when reviewing visibility results, such that snowmobiling activities are confined to the winter seasons and availability of snow accumulation or coverage. Snowmobile trail C7D briefly enters the northern boundary of VSA near Old Trail Road where a small linear segment (1,240 feet) of potential visibility may occur. The Facility is approximately 2 to 4 miles away from this section of the C7D trail. Considering the large viewing distance, the motion related effects of



snowmobiling, and travel orientation (trail heads east to west, whereas Facility is located south), recreational users accessing this small segment of trail are unlikely to perceive the Facility.

Snowmobile trail C7B meanders along the northeastern extent of the VSA within Distance Zone 2. The occurrence of potential Facility visibility is found at the trail crossing on Mohawk Drive and within two agricultural fields found immediately south of the trail crossing. The nearest solar array to this section of trail is approximately 1.45 miles southwest. Representative VP 61 photosimulation (see Revised Attachment 3) details the visual effects of distance (1.25 miles to nearest solar array) for this resource. As displayed in the photo-simulation, in distant agricultural fields above a dense swath of forested vegetation, solar arrays are partially noticeable but mostly subsumed by forested areas and tree hedgerows. Therefore, the limited views of the Facility from the C7B trail will not distract or diminish views to the surrounding landscape.

The S71 snowmobile trail is located east of the Facility Site within Distance Zone 2. This trail connects at the S72 and C7E junction and travels northwardly to the C7P snowmobile trail along the Erie Canalway Trail. Potential solar array visibility may occur along 0.33-miles of the total 3.72-mile trail, or approximately 8% of the trail. This concentration of potential visibility is located east of Noeltner Road where the trail traverses through several agricultural fields and tree hedgerows. Overall, variable and momentary visibility may occur within this limited section of trail. Therefore, the limited views of the Facility from the C71 trail are not anticipated to distract or diminish views to the surrounding landscape.

The S72 snowmobile trail is located within Distance Zone 2 and approximately 0.8 miles south of the Facility. Within the VSA, the trail accounts for a total length of 6.35 miles, approximately 1.81 miles (29%) of the trail may experience Facility visibility. A LOS profile was prepared to depict a potential view from the S72 snowmobile trail (see LOS L2 in Revised Attachment 3). The results of the LOS L2 profile show that a small section of solar array may be perceived from 1.42 miles; however, at this distance and because of intervening topography and vegetation, most of the Facility will not be discernible. Therefore, viewers using the S72 snowmobile trail may only discern variable and short duration views of limited parts of the Facility.

Overall, potential views of the Facility will not dominate, nor will they diminish the recreational use of the S71, S72, C7D, and C7B snowmobile trails.

NYS Bicycle Route 5 (NY5S)

NYS Bicycle Route 5, also known as State Bike Route 5, is a designated on-road bicycle route that traverses 365 miles, spanning from Niagara Falls to the Massachusetts state line. This bicycle route parallels the Erie Canal and Erie Canalway Trail.

In the VSA, State Bicycle Route 5 travels east-to-west for a total of approximately 2.71 miles. The viewshed analysis predicted limited solar array visibility from a very small 55-foot section of NY5S, north of the Maple Ave. Cemetery. The nearest solar array is approximately 1.24 miles southeast of the 50-foot bicycle route section. Recreational bicyclists, local commuters, and travelers are highly unlikely to discern the Facility from this confined area of the road. It is anticipated that most



viewers are motorists that will experience additional difficulty when attempting to identify the Facility due to movement speeds and the associated reduction in window of view (165 and 60 feet in length). Overall, viewers traveling or bicycling on the NYS Bicycle Route 5 are not expected to discern the Facility and the recreational value will remain intact.

Revolutionary Trail/NY5

Encompassing six counties in New York, the Revolutionary Trail is a scenic transportation route connecting the Port of Ontario to Capital Region at a length of 158 miles. The route offers scenic valleys, woodlands, as well as museums, historical sites, hiking, picnicking, and cycling. It also features and is known for containing a significant collection of scenic, natural, recreational, cultural, and historic resources. These features underscore many of New York State's major contributions toward building the American Nation.

In the VSA, the Revolutionary Trail travels east-to-west along and near the Mohawk River for a length of approximately 7.35 miles. A total of 6.58% of the road is predicted to receive variable and intermittent visibility of the solar array. The concentration of visibility is identified on an elevated section of NY5 within vicinity to Rest Stop Overlook on NYS Route 5 where representative VP 61 photo-simulation was prepared. As demonstrated by the simulation, a few tan colored fields in the background toward the center of the image are comprised of solar arrays that visually resemble dark blue hues and forms of existing forested vegetation. Due to the viewing distance and limitations to human vision (visual acuity of objects at large distances), it is likely that viewers would not be able to differentiate the Facility from the existing tree hedgerows and forest interspersed around the Facility and distant landscape. VP 93 was captured from the Revolutionary Trail and represents a limited area of isolated visibility. The VP 93 simulation demonstrates that a small portion of the solar array is filtered through vegetation at the top of a hill. While VPs 61 and 93 indicate that variable visibility occurs on the Revolutionary Trail. most viewers will be traversing at relatively high speeds (55 MPH) and will only experience short glimpses to the Facility if facing the correct direction (south). Because the frequency of view to the solar array from the Revolutionary Trail is anticipated to be minimal to none, and the level of visual contrast of the solar array from VPs 61 and 93 were rated as weak to very weak; a negative visual change is not expected at this resource.

Montgomery County Fairgrounds (USN 05744.000012) and Fonda Speedway (USN 05744.000242), Mohawk

The Montgomery County Fairgrounds and Fonda Speedway are located within the same property within the Village of Fonda, both of which are NRHP eligible resources. Viewshed results of the solar arrays determined that two small, isolated streaks of potential visibility may occur on the site: one crosses through the racetrack, and one falls within greenspace found north of the racetrack. The nearest solar array to this subject area is approximately 1.12-miles to the southwest. The VP 94 photo-simulation faces south toward the Facility at a 0.70-mile distance. Therefore, VP 94 provides an approximate representation of what may be discerned from the two discrete areas of limited visibility within the Montgomery County Fairgrounds and Fonda Speedway. As shown in VP 94, a horizontal and dark blue form consisting of solar panels is found



along the crest of a distant hill, however, the combination of existing vegetation and viewing distance to the Facility provides an appreciable reduction in visual contrast.

It is reasonable to assume the vast public will be congregating during a large event or activity at the fairgrounds and speedway. It is also reasonable to assume that large events at the fairgrounds and speedway will be accompanied by visually distracting elements (e.g., sound, smell, lights, motion, signage, etc.) that would most likely demand immediate foreground attention over any distant landscape feature. For these reasons, the two limited areas of solar array visibility within the Montgomery County Fairgrounds and Fonda Speedway will unlikely be noticed by viewers, nor will it degrade the public's enjoyment of the site's activities and environment.

Mohawk Valley State Heritage Corridor

The Mohawk Valley State Heritage Corridor is part of the collective Heritage Area System and is used to form a local and state partnership for establishing the preservation and development of areas that have special significance. These areas often include natural, historic, and cultural resources.

The Mohawk Valley State Heritage Corridor encompasses the entire VSA where all photosimulations and LOS profiles have been prepared for the assessment of Facility visibility. The results of the visual analyses are documented throughout Section 10.0 to Section 10.3. The summary of conclusions (See Section 14.0) contains an overview of potential visibility within this extensive corridor that travels through the VSA.

Potential Environmental Justice Area (PEJA) - Census Tract 727, Block Group 2

The PEJA – Census Tract 727, Block Group 2 covers approximately 61.4% of total land in and around the Town of Glen where several photo-simulations and LOS profiles have been prepared for the assessment of Facility visibility. The results of the visual analyses are documented in Section 10.2, Photo-simulation and LOS Results and Discussion, as well as Revised Attachment 3, Photo-Simulations and Lines of Sight. Please reference Revised Exhibit 19, Environmental Justice, for additional information regarding PEJAs.

10.1.1.3 Visibility of Solar Arrays at Local Resources

While not classed specifically as officially listed agency scenic resources (see Table 4 in Section 6.0), a limited degree of local town residents and local roadway traffic will experience views of the Facility in varying locations. As mentioned in Section 6.0 and 7.3.2, visual stakeholders were consulted and provided the opportunity to append additional resources of concern. The resources listed below are not officially recognized by agencies but are attributed to the stakeholder engagement results.



Local Resources

Western Supreme Buddha Temple

The Western Supreme Buddha Temple is found on Shrine Road within Distance Zone 2, approximately 1.38 miles east-northeast of the Facility. Access to the temple is generally limited to members as noted by a large privacy fence impeding access from Shrine Road. From the temple, a small potential area of solar array visibility falls on the far eastern edge of the temple's hardscape (courtyard). A representative photograph was secured from outside of the privacy fence as VP 35 of the Facility Photolog (see Attachment 2). As shown in the photograph, a small portion of the Facility may be discerned within the distant being fields (1.38 miles away) which is seen above existing deciduous tree canopies. As depicted in the photos, landscape components at this distance become simplified. For instance, tree vegetation can be seen forming horizontal bands where individual textures are replaced by an overcast of dark blue hue. Solar arrays at this viewing distance generally inherit a flat blue hue and would likely mimic the character of the existing vegetation. Therefore, the Facility will likely go unnoticed by most members at the Western Supreme Buddha Temple. Activities at the temple during the winter (leaf-off) months are expected to be limited to the temple interior. During warmer seasons when leaf-on foliage propagates, any potential perception of the Facility would further be diminished by vegetative screening effects.

Bellinger's Orchard

The Bellinger Orchard is a 300-acre farm and orchard on Argersinger Road in the Town of Glen. This local resource provides the community with seasonal activities such as pick-your-own cherries, blueberries, apples, peaches, nectarines, pears, plums, and pumpkins. The orchard also offers a 5-acre corn maze and farm store with local NYS products and homemade items.

Spatially, Bellinger's Orchard is approximately 0.64 to 1-mile west of the nearest proposed solar array. The concentration of potential visibility is found intermittently throughout the orchard due south of the Bellinger Farm. In general, visitors' access to the orchard will be limited to fruit picking between the months of June to September when leaf-on conditions will be prevalent (Bellinger's Orchard LLC, n.d.). Viewers within the orchard are unlikely to experience views of the Facility when considering the combined visual reducing effects of observer distance to the solar array and visual obstructions consisting of foreground (leaf-on) tree rows (see VP 13 of Facility Photolog in Attachment 2 for a representative view). However, viewers positioned on the south end of the orchard may perceive some of the Facility when no such foreground vegetative obstruction exists.

Fonda Little League Park

The Fonda Little League Park is located within the Town of Mohawk on Veeder Road, northwest of the Village of Fonda. The nearest solar array to the park is approximately 1.55 miles south. Visibility results (see Revised Figure 4) demonstrate limited scattered visibility of the solar array may occur within the eastern soccer fields.



In general, recreational users and spectators will focus attention to the immediate foreground of the soccer fields where sports activities are occurring, and less attention will be given elsewhere. It is anticipated that limited and partial views of the Facility from this perspective shall diminish when warmer seasons arrive and promote the growth of leaf foliage. The type of potential viewers at the park are identified as local residents, workers, and recreationalists partaking in sport activities. Due to the seasonality of sport activities associated with the fields, frequency of view is expected to increase during warmer seasonal months when sport activities are typically conducted but views will be mostly screened by existing and background vegetation.

Winnie School (Ilene Wagner's House)

This property is privately held and located on Argersinger Road approximately 0.30 to 0.50 miles from the closest solar array. Most of the property will not discern the Facility, but a small fragment of the eastern side of the property line may have the potential to perceive part of the solar array. A representative photograph in vicinity to this property is detailed as VP 15 of the Facility Photolog in Attachment 2. As depicted in the photograph, much of the foreground is comprised of mature deciduous shrubs that obscure distant fields where the Facility would be distinguished. Additionally, large deciduous trees concentrated around the dwelling may partially impede outward views to the landscape. Proposed landscaping will supplement the screening effect of existing vegetation and will be sited along the solar array closest to this property to minimize potential solar array visibility.

Saint Kateri National Shrine and Historic Site

The Saint Kateri National Shrine and Historic Site is located within the Town of Mohawk on NYS Route 5, due west of the Village of Fonda. The site consists of several built structures, one of which is recognized as the NRHP-listed Tekakwitha Friary (H.D.F. Veeder House). The Saint Kateri National Shrine and Historic Site, contrary to the suggested nomenclature, is not a federal or state recognized historical site; however, the site was considered in the VIA and categorized as a local resource.

From within the site, potential visibility of the solar array is isolated to a small, elevated slope on the northern side of the property where greenspace abuts an existing mixed forest. Outdoor amenities consist of a greenspace with gravel walking paths and religious statues and monuments. Further attention to this resource was provided with the development of the VP 94 photo-simulation (see Revised Attachment 3 and Section 10.2.1.7). The results of the simulation conclude that a partially distinguishable, thin blue band, comprised of solar panels is partially distinguishable on the top of a slope where several existing H-frame transmission structures are observed. As indicated by the VP 94 average rating results, the visual contrast introduced by the Facility was identified as weak during leaf-off conditions when the Facility would be most visible. It is likely the solar arrays would not be discernible during leaf-on conditions when user activity is usually the highest. The limited visibility to the Facility from the Saint Kateri National Shrine and Historic Site will not impede visitors from enjoying the site's greenspace and amenities.



Rest Stop Overlook (Mohawk Area #3 Marker)

The Rest Stop Overlook adjoins NY5 (Revolutionary Trail) within the northeastern border of the VSA. Located along an elevated part of NY5, this rest stop provides amenities such as a historical marker with a description of local history and picnic tables. This rest stop also provides the public with a safe alternative (off highway) to appreciate the surrounding distant landscape. Several clumps of mature deciduous trees border the parking lot to the south where the Facility would possibly be identified. Where gaps in trees exist, potential sighting of the Facility may also exist.

This resource was identified and elected by the Town of Mohawk and mentioned by the Town of Glen (Historian) during Stakeholder outreach (see Attachment 4 for correspondence). Subsequently, a photo-simulation was prepared as VP 61 (see Revised Attachment 3) to accommodate a more thorough review of potential visibility. As indicated by the results of VP 61, a slight appearance of solar panels occurs in the far distant fields in the background of the photograph. The perception of Facility may be difficult for most viewers to identify in landscape due to viewing distance. This is because as viewing distance significantly increases, the clarity and acuity of vision diminishes. For instance, as depicted in the VP 61 photo-simulation, background landscape components inherit atmospheric colorization (blue hue) and simplification of form contributes to the solar arrays matching the appearance of tree hedgerows scattered throughout the distance fields. Consequentially, it is anticipated that a majority of static viewers at the Rest Stop Overlook will not distinguish visual change.

The following historic markers are anticipated to experience a certain degree of Facility visibility:

Historical Blue Marker of Homestead of Capt. Albert C. Olmsted (HM2)

The Historical Marker of Capt. Albert C. Olmsted is adjacent to private property located south of Logtown Road. The marker is predicted to receive visibility of the solar arrays at a distance of approximately 1.13 miles when facing north. However, based on anticipated viewer activities and the location of the homestead and marker, views are expected to be focused south. Generally, a visitor's attention would need to focus to the north, or the opposite direction of the marker, homestead, and dwelling in order to perceive the Facility. Several tree hedgerows are located in between the northern subject solar array, with a viewing distance of 1.13 miles. I,t is anticipated that a partial number of solar panels may be distinguishable, but the general character of the partial visibility is not expected to disrupt the viewing of the historical commemoration of the marker and homestead.

Marker (Rest Stop Overlook) Mohawk Area #3 (HM13)

The Mohawk Area #3 marker is located within the Rest Stop Overlook where VP 61 photo-simulation was prepared (see Revised Attachment 3). As mentioned in the Rest Stop Overlook resource description above, the slight appearance of solar panels occurs in the far distant fields in the background of the photograph. The perception of Facility may be difficult for most viewers to identify within the landscape due to viewing distance and limitations to human sight (acuity of vision). The VP 61 simulation demonstrates that the Facility's blue hues in relation to the blue



hues of forest found in the distant fields are similar in color values, allowing the solar arrays to be absorbed by the surrounding environment. Therefore, because the Facility is difficult to perceive from this marker, it is anticipated that most potential viewers will not discern visual change from this marker.

<u>Historical Blue Marker of Jail Limit Marker (HM18)</u>

The Jail Limit Marker is located northeast of the Village of Fonda on Switzer Hill Road where the nearest solar array is approximately 1.77 miles southwest from this location. Solar arrays may be partially discernible from this marker, but it is not expected to result in significant visual change because of the substantial viewing distance. In order to discern the distant solar arrays from the marker, a viewer would need to visually navigate around two residential dwellings and several foreground trees located immediately west of the marker.

10.1.1.4 Visibility of Solar Arrays from Public Roads

Although not classed specifically as officially listed agency scenic resources, it is recognized that local town residents and local roadway traffic will experience views of the Facility in varying locations. Please refer to Table 2 for a general understanding of the average volume of daily traffic from roadways within the VSA. A more in-depth assessment of potential visibility from public roads within the VSA is provided as follows.

Public Roads Within Distance Zone 1 With Predicted Visibility (0.5-mile from observer to Facility)

NY30A - Within the VSA, NY30A runs in a north-south direction connecting the Village of Fultonville to the Hamlet of Glen. A portion of this roadway is within Distance Zone 1 where ephemeral views of the Facility may be visible from the route between Fisher Road and Maple Avenue. Most of the predicted visibility of the solar array from this section of road is punctuated by segments of large forest groupings and open agricultural fields that are not part of the proposed Facility and will therefore not host solar arrays. Therefore, views of the solar array will not be sustained throughout the entirety of this road but will rather be short and momentary. Users traveling on NY30A will be reaching speeds of 55mph, thereby reducing the amount of time the Facility could be discerned by travelers. With the staggered locations of existing forest between proposed solar array groupings, viewers will not experience a full impression of the Facility, but rather a brief and short segment of visibility. The LOS L2 profile (see Revised Attachment 3) intersects NY30A south of the Hamlet of Glen. As shown in the LOS, a small section of solar array may be partially visible over treetops from a viewing distance of 1.2 miles (from NY30A to solar arrays). Given the distance at which the small section of solar array is viewed, the visual scale of the solar array is expected to be relatively minor. When considering the posted travel speed on NY30A, most users traveling on NY30A may not perceive this minor section of solar array as viewer focus is generally concentrated in a forward direction. Collectively, the combination of setback distance from the road to the solar array and the proposed landscaping will further reduce any sighting of the Facility.



Van Epps Road (Montgomery County Scenic Byway) – Van Epps Road is a local road that generally follows a parallel path to NY30A, traveling in a north-south direction. In the VSA, this road spans 3.5 miles from the Village of Fultonville to Fisher Road. Solar array visibility was predicted to occur along 2.65 miles, or 76% of the road. However, in reference to Table 2, local roads within the VSA contain an AADT of 91 to 527, therefore it is anticipated that fewer users will be traveling this road compared to other roads within the VSA (e.g., NY5S contains an AADT of 3,759). As indicated in the viewshed (see Revised Figure 4), the concentration of foreground views (where more panels may be discerned) is generally found between Lusso Road and Scott Road, and from Mile Level Road to Fisher Road. A section of Van Epps Road (north of Lusso Road) is expected to experience minimal visibility to the nearest proposed solar array (west of Van Epps Road), this is due to the visual obstruction of the existing Van Epps & Mohawk View Community Solar Facility (located in front of the closest proposed solar array), the existing topography, and forested vegetation found around the proposed solar arrays. VP 98 was prepared from this section of Van Epps Road and the results of the simulation demonstrate that most of the Facility is screened by the existing Van Epps & Mohawk View Community Solar Facility.

A second photo-simulation (see VP 45 in Revised Attachment 3.0) was developed near the intersection of Van Epps Road and Ingersoll Road where the nearest solar array is approximately 470 feet to the south. VP 45 is representative of what may be experienced by travelers on Van Epps Road when near the Facility interior. As illustrated in the VP 45 simulation, vegetative landscaping is proposed to screen and soften views of solar arrays. Depending on the viewer's elevation, partial views to the solar array may occur near this section of Van Epps Road. Due to travel speeds, those driving by the solar array will likely momentarily and intermittently discern the Facility amongst the proposed landscaping.

<u>Auriesville Road (Montgomery County Scenic Byway)</u> – From the Hamlet of Glen, Auriesville Road heads in a northeast direction and terminates in the Hamlet of Auriesville at NY5S. From this road, the concentration of predicted visibility occurs between the existing Marcy-New Scotland 345 kV transmission line to the north and the Glen Volunteer Fire Department to the south. Of the limited users of Auriesville Road (AADT 527), partial visibility of the solar array may be conducive from this section of road, but will be brief and interrupted by existing tree hedgerows that run parallel to each side of Auriesville Road. Proposed landscaping is sited on both sides of this road to compound the reduction in visibility of the Facility.

A local visual stakeholder expressed concerns regarding the potential occurrence of visual change from Montgomery County Scenic Byways, but more specifically, Auriesville Road (see Attachment 4 for correspondence). Therefore, further attention was provided to this road with the development of a photo-simulation (VP 42; see Revised Attachment 3). As shown in the photo-simulation, solar arrays are located over 390 feet away from the observer. This distance reduces the overall perceived scale of the Facility. Furthermore, vegetative landscaping is proposed along this route to soften and reduce the appearance of the Facility, thereby reducing visual contrast. As depicted in the VP 42 contextual photographs within the Facility Photolog (see Attachment 2), additional views of the background landscape are available beyond this single perspective (where the Facility is sited).



Overall, the entirety of Auriesville Road will not contain persistent views of the Facility, nor is there a substantial number of daily travelers. For a few subsets of residences on Auriesville Road that may reside immediately adjacent to the Facility, landscaping is proposed around the extents of these properties to minimize visibility.

<u>Fisher Road (Montgomery County Scenic Byway)</u> – Initiating from the Hamlet of Glen, Fisher Road heads mostly west for approximately 2 miles where it terminates at Hall Road. There are two 0.4-mile sections with predicted visibility on Fisher Road. One span is located between Hall Road and Van Epps Road, and the second span is near the vicinity of the Hamlet of Glen and ceases well before Auries Creek. A small number of commuters and local travelers heading east along Fisher Road (AADT of 194; see Table 2) may perceive momentary glimpses of solar arrays (0.2 to 0.75 miles away), however, tree hedgerows bordering the Facility Site may reduce this brief visibility, in addition to supplemental proposed landscaping sited behind the existing tree hedgerow which effectively compounds visual interruption to the Facility.

The other potential visual occurrence of solar arrays on Fisher Road near the Hamlet of Glen is due to a solar array's proximity to the road, however, this particular array is treated with proposed landscaping around the security fencing to screen and minimize views.

Logtown Road (Montgomery County Scenic Byway), Mill Point Road - Logtown Road and Mill Point Road continue in succession in an east-to-west fashion. Predicted visibility of solar arrays occur mostly on Mill Point Road between the Hamlet of Glen to Noeltner Road. A smaller area of Facility may be perceived on Logtown Road between the Glen Village Cemetery and the Hamlet of Glen. A photo-simulation was prepared from Mill Point Road in the Hamlet of Glen (see VP 80 in Revised Attachment 3). As shown in the photo-simulation, a thin horizontal band of solar panels is noted but is partially subsumed by the distant blue hue of the background landscape. A vibrant blue metallic roof of a large commercial building in the midground visually demands attention and generally detracts attention away from the Facility. Overall, the photo-simulation conveys that due to observation distance and topography, the Facility is minimally seen. LOS L2 profile intersects Logtown Road and is also found in Revised Attachment 3. As seen in the LOS L2 profile, a small portion of solar panels may be partially discernible through foreground vegetation and over distant treetops at approximately 0.9 miles. Due to distance and the interference of vegetation, the Facility will not be a distraction to those residing or traveling along Logtown Road. Because of the Facility's orientation from these roads (north) and the facing direction of traffic (east-west), motorists using these roads will infrequently view the Facility.

Ingersoll Road (Montgomery County Scenic Byway) – Ingersoll Road is a local road directed in a northeast-southwest orientation within the VSA and connects Van Epps Road to NY30A and NY5S near the Hamlet of Auriesville. Visibility of the Facility from this road will be variable as several arrays are intermittently sited along the road, however, it is important to note that very few travelers or residents use this road with an AADT of 99 (see Table 2). The most potential views from Ingersoll Road are expected to occur between NY30A and Van Epps Road near Square Barn Corners where a photo-simulation (VP 44; see Revised Attachment 3) was developed for further evaluation. As depicted in the photo-simulation, proposed landscape plantings are juxtaposed with the solar arrays resulting in the moderation of contrast. The setback distance of



the solar panels reduces the scale at which they are viewed in the photograph. During leaf-on conditions in warmer seasons, landscaping will provide additional screening when user activity is expected to increase. A separate section of solar array is found north of the existing transmission right-of-way where the Facility is bounded by mixed deciduous and coniferous forests (see VP 68 simulation). Not all residents residing within this span of Ingersoll Road will perceive the Facility due to visual impediments such as existing forest, proposed landscaping, setback distance of the solar panels, and topography. However, an unobstructed view of the solar array may occur within a confined area on Ingersoll Road where vegetative mitigation (5 years post-construction) may not be effective in screening the solar arrays, for example, see the VP 45 simulation in Revised Attachment 3. As shown in the simulation, visual contrast of the Facility is discernible beyond the residential dwelling because of the observer's elevation in relation to the solar array elevation. Notwithstanding, this viewing circumstance appears to be infrequent based on other simulations prepared from this road (VPs 44, 68, and 69).

Egelston Road – Egelston Road is a local road connecting Mill Point Road to Noeltner Road and is located east of the Facility. Visibility of the solar array is expected to occur in varying locations south of Revine Creek on Egelston Road. Commuters and local residents using Egelston Road are anticipated to be few in number as demonstrated by AADT counts for local roads (ranging from 91 to 527) within the VSA. A photo-simulation was developed from Egelston Road (see VP 38 in Revised Attachment 3) from the vicinity of one rural-residential dwelling. As shown in the simulation with 0 to 2-year landscaping, interim visibility will occur to the solar arrays; however, as indicated in the 5-year landscaping simulation, proposed plantings will mature and obstruct a significant amount of the Facility. As a result, viewers traveling or residing near this section of Egelston Road may discern a minimal number of solar arrays in 5-years when landscaping is established.

Noeltner Road (Montgomery County Scenic Byway) – Noeltner Road travels in a north-to-south orientation and is located east of the Facility in the Town of Glen. On this road, a few limited sections of less than approximately 300 feet were predicted to perceive the solar array. From these areas, the Facility is found at varying viewing distances of 0.40-mile to over 1-mile away to the west. Of the low number of local residents and commuters that travel this road, few would be able to perceive the distant Facility as focus is generally directed toward the road (north-south), whereas the Facility is located due west. As mentioned above, landscaping is proposed around the solar array (near Egelston Road).

<u>Mill Point Road</u> – Two small and short intervals of predicted visibility occur on Mill Point Road near Van Epps Road. However, it is unlikely to disrupt travelers due to the screening effect of an existing tree hedgerow adjacent to the closest solar array. Approximately three rural-residential dwellings near the intersection of Van Epps and Mill Point Road received predicted visibility. However, Type A landscaping is proposed behind existing tree hedgerows by the nearest solar arrays. The compounded effect of existing and proposed vegetation will minimize visibility to the maximum extent practicable.

<u>Argersinger Road</u> – Argersinger Road is a local road bridging Van Epps Road to the Randall community which is found outside of the VSA. The solar array may be discernible from a small



0.65-mile stretch of road near Van Epps Road. Argersinger Road is expected to support a limited number of travelers who may experience an ephemeral view of the Facility. However, these brief views will be mitigated by proposed (Type A) vegetative landscaping that is sited around the western fence perimeter of the nearest visible solar arrays.

<u>Lusso Road</u> – Lusso Road is positioned between Borden Road and Van Epps Road and serves as a local road for residents. Visibility of the Facility is confined to a span of the road near Van Epps Road where a few residential dwellings are found adjacent to open agricultural fields. Views from residences to the solar panels are interrupted by vegetation located on residential properties as well as forests and tree hedgerows bordering the solar array. Furthermore, landscaping is proposed around the solar array where existing vegetation does not currently exist, thereby reducing any potential visual effects of the Facility.

<u>Scott Road</u> – In the VSA, Scott Road bridges NY30A to Van Epps Road and is defined as a local road. Most of the solar array may be partially distinguishable on an approximately 1.07-mile stretch of the road, east of the intersection of Scott Road and Van Epps Road. There are approximately five rural-residential dwellings on Scott Road, although most viewers are anticipated to be local travelers. Potential views to the solar arrays may be available when facing south through a gap in existing vegetation, however, vegetative landscaping is proposed on the north side of the closest solar array to mitigate this potential visibility. Solar arrays to the northwest direction from this section of Scott Road are expected to be minimally visible due to viewing distance, the presence of several tree hedgerow obstructions, and proposed supplemental landscaping.

<u>Public Roads Within Distance Zone 2 With Predicted Visibility (0.5-mile to 2 miles from observer to Facility)</u>

Generally, viewers in Distance Zone 2 are less affected and therefore less sensitive to visual change because of the moderate to large distance between the viewer and the solar array (see Section 4.0 for the description of Distance Zone 2). Travelers of these roads are not expected to experience sustained views to the Facility because of travel speed (motion), which typically provides less time for a viewer to visually absorb their surroundings. Public roads located within Distance Zone 2 that are predicted to experience solar array visibility are tabulated below in Table 9.



Table 9. Solar Array Visibility of Public Roads within Distance Zone 2

Road Name	Total Road Length (Feet)	Percent of Solar Array Visibility ¹
Argersinger Rd	9,911	5.72%
Bates Rd	505	15.14%
Borden Rd	11,866	0.12%
Boshart Rd	4,236	36.11%
Cemetery St	1,259	23.63%
E Main St	3,094	1.68%
Egelston Rd	3,914	28.19%
Firefly Meadow Rd	2,899	27.84%
Fisher Rd	5,645	31.06%
Fonda Fultonville School	1,745	5.53%
Getman Rd	1,333	1.12%
Gunnerson Ln	3,268	8.16%
Hall Rd	6,000	6.31%
Hartley Ln	1,442	6.50%
Hickory Hill Rd	16,214	15.04%
Hyney Hill Rd	4,107	3.06%
Kane Rd	3,291	0.32%
Keller Rd	1,836	23.53%
Knowlton Rd	991	6.36%
Kupciunas Dr	302	0.04%
Lansing Rd	7,966	15.58%
Logtown Rd Extension	445	4.64%
Maple Ave	6,847	0.28%
Midway Alley	802	0.92%
Mohawk Dr	12,929	16.93%
Montgomery Ter	664	0.99%
Noeltner Rd	10,561	14.23%
North Center Street	987	2.61%
Old Johnstown Rd	3,800	41.88%
Olmstead Rd	2,140	23.82%
Parking Lot	2,670	3.97%
Pavlus Ln	2,025	20.35%
Reed Hill Road	5,555	0.16%
Rest Area	1,300	46.25%
Reynolds Ln	875	66.80%



Road Name	Total Road Length (Feet)	Percent of Solar Array Visibility ¹
Reynolds Rd	7,109	1.74%
Rifes Ln	919	17.92%
Schickler Ln	1,369	5.15%
Scott Rd	1,603	42.61%
Siebe Ln	847	54.86%
Smith Dr	892	10.20%
NY161	10,499	28.96%
NY30A	20,377	20.13%
NY5	37,578	8.52%
NY5S	29,252	0.26%
Stewart Ln	235	18.18%
Stone Arabia Rd	3,882	13.48%
Switzer Hill Rd	3,170	13.36%
Veeder Rd	5,783	0.20%

¹Percent of solar array visibility is measured to VSA extents and does not reflect the route beyond the VSA boundary. Therefore, some roads may exaggerate the amount of predicted visibility.

As shown in Table 9, variable visibility is anticipated from a select number of roads within Distance Zone 2, however, not all roads will discern the solar array. Photo-simulations within Distance Zone 2 are representative of the typical visual conditions and include VPs 58, 61 and 94. LOS profiles L1, L2, and L3 were also performed within this distance zone. Please see Revised Attachment 3 to view the LOS profiles and photo-simulations. As described in Section 10.2, these LOS profiles and simulations result in a relatively small impression of the Facility. As shown in the photo-simulations (VPs 58, 61 and 94) prepared from Distance Zone 2, the visual scale of the Facility is relatively minor as compared to the larger landscape that is viewed. Since most viewers will be traveling and may not be able to safely visually locate the Facility within the distant landscape, views of the solar arrays are generally infrequent and will result in minimal impact to travelers. However, where solar array visibility is predicted from the roads within Distance Zone 2, places or dwellings along these roadways may have the propensity to view the solar array for a longer duration, but the relative scale of the visible solar array would likely be underwhelming or minimal. Proposed landscaping may additionally attenuate views of the Facility from these locations.

10.1.2 Viewshed Results of the Substation, POI Switchyard, and Transmission Structures

A second viewshed analysis (see Revised Figure 5) was prepared to evaluate potential visibility of the substation, POI switchyard, and transmission structures (collectively referred to as "POI components"). Associated methodology used to prepare the viewshed is further elaborated in Section 7.1. The POI components will be located near the eastern extent of the Facility Site, in vicinity to Ingersoll Road and the existing Marcy – New Scotland 345 kV transmission line.



The POI components viewshed determined that 10.24%% of potential visibility may occur within the VSA. As shown in Table 10, the concentration of visibility is found within Distance Zone 1 (6.27%), whereas less visibility is identified in Distance Zone 2 (3.87%). Overall, the tallest POI components consist of proposed Transmission Structures (135 to 200 feet in height), therefore, most visibility is anticipated to be a result of these structures. As shown in several photographs (VPs 6, 50, 69, and 92; see Facility Photolog of Attachment 2) and photo-simulations (VPs 42, 44, 58, 61, 80, 93, and 94; see Revised Attachment 3), views to the existing Marcy – New Scotland 345kV transmission line are abundant within the VSA, but the overall appearance of the existing structures generally diminish when in Distance Zone 2. Therefore, it is expected that VPs from Distance Zone 2 to the proposed POI components will result in minimal visual change due to the presence, scale, and visual dominance of the existing Marcy – New Scotland 345 kV transmission line and due to the very limited amount the POI components are actually discerned (3.87% in Distance Zone 2).

As discussed, POI components visibility within Distance Zone 1 (0.0 to 0.5-miles from observer to Facility) comprises a total of 6.27%. Due to the presence of existing forest vegetation bordering the north and west sides of the POI components, the nearest views are limited to a small section of Ingersoll Road in proximity to the existing Marcy – New Scotland 345 kV transmission line where VPs 68, 69, 70, and 71 were documented. These VPs face the general direction where the POI components may be seen from the road.

VP 69 is the closest photographed location to the POI switchyard from Ingersoll Road. Behind the viewer stands several tall existing h-frames that attribute to the existing Marcy – New Scotland 345 kV transmission line. As shown in the VP 69 photo-simulation with 5-year landscaping, a portion of the POI switchyard is softened by proposed vegetation. Part of the POI switchyard remains discernible due to planting and height restrictions underneath the new transmission cabling. VP 69 conveys what viewers may experience as they traverse along Ingersoll Road; however, it is important to note that this area already contains similar utility characteristics consisting of an existing transmission line. Local travelers will likely have a visual expectation of utility development when traveling on Ingersoll Road, therefore, incremental visual change due to the POI switchyard will unlikely change the public's experience when traversing along this small section of the road.

While VP 69 illustrates landscaping restrictions under the aboveground cabling, there will not be such restrictions along the nearest residential properties to the east. As indicated in revised Plan 6A of Attachment 6, Type A screening is proposed along the nearest eastern residential properties. In this area, landscaping is sited near the property line to increase the visual scale of the plantings against the switchyard. In doing so, this planting placement serves an impactful screening measure and is intended to minimize residential dwelling views to the substation, to the maximum extent practicable.

As depicted in the VP 70 photograph (see Attachment 2), one residence is located approximately 338 feet away from the proposed POI switchyard. Residences adjacent to these VPs may initially discern the Facility post-construction, however landscaping is proposed in the vicinity to the properties (as opposed to the vicinity of the POI components) for a more impactful screening



effect, and visual contrast will diminish as plantings mature. If a residence discerns a limited portion the POI components, the exact duration and frequency of view will vary depending on a resident's location, objectives, and activities, but it is assumed the length of view will be longer as opposed to shorter (e.g., a traveler driving by the POI switchyard).

Not all residents residing on Ingersoll Road will discern the proposed POI components. VP 68 was developed as a photo-simulation from this general area and faces north toward the proposed solar arrays, substation, and transmission structures. As depicted in the VP 68 simulation, solar arrays in the foreground obstruct the visual sightline to the substation. In the distant forested background, a single transmission structure stands above the trees, but is partially intersected by the foreground solar panels. In approximately 5-years post Facility construction, landscaping reaches the heights of the panels where minimal components are noticed, however, the transmission structure remains distinguishable. Overall, the VP 68 simulation demonstrates that foreground solar arrays and the proposed landscaping vegetation will interfere and potentially impede some views to the POI components from Ingersoll Road

Vantage points from all other roads within Distance Zone 1 are not expected to view the POI components at full scale because of intervening vegetation, topography, and viewing distance. For example, a majority of the proposed substation components are less than 36 feet in height and therefore shorter than the surrounding mature forest. Therefore, many of the POI components will be partially or fully screened by existing forested vegetation located around Ingersoll Road and throughout Distance Zone 1. At most, it is anticipated that the top sections of the substations lightning masts, takeoff structures, and the proposed transmission structures (containing heights ranging from 70 to 200 feet) would be discerned above treetops from other visible roads within Distance Zone 1, however, the resulting visual contrast would be minor in context to the prominence of the existing Marcy – New Scotland 345 kV transmission line.

Table 10. Percent Visibility of the Substation and POI Switchyard within Distance Zones

Distance Zone	Total Area Comprising Distance Zone Square Miles	Visibility Within Distance Zone Square Miles	% Visibility Within Distance Zone	% Visibility Within Full VSA		
Zone 1 0-0.5 Miles	12.34	2.8	22.69%	6.37%		
Zone 2 0.5-2.0 Miles	31.6	1.7	5.38%	3.87%		
Total	43.94	4.5	-	10.24%		

10.2 Photo-Simulation and LOS Results and Discussion

The discussion of predicted visibility in Section 10.1 above focuses on relative quantities of visibility (how much is seen and where) under various conditions, such as within LSZs and



Distance Zones to understand and objectively assess the amount of visual change in the landscape.

Photo-simulations and LOS profiles were prepared to supplement the evaluation of visibility from significant or representative viewing locations. To achieve this, photo-simulations have been developed from representative vantage points at varying distances and cardinal directions around the Facility. Per 19 NYCRRR Section 900.2.9 (b)(4)(i), simulation locations are based on representative or typical views showing proposed site conditions from areas predicted to have direct line of sight visibility to the Facility. Each photo-simulation underwent a rigorous selection process to conform with the regulations. The Section 94-c VP selection criteria and the prepared photo-simulations that conform to these criteria are discussed in Section 7.3.2.

Table 11 summarizes information for each simulation VP and LOS profile. Please refer to Revised Attachment 3 to view the simulations and LOS profiles.



Table 11. Summary Table of Simulation and LOS Viewpoints

Viewpoint ID	Location	Town	Approximate Distance to Facility	LSZ	Cardinal Direction	Reason for Selecting
31	Mill Point Road (Glen Historic District)	Glen	0.43-mile	3,4	NW	Representative of the Glen Historic District and the Hamlet of Glen.
38	Egelston Road	Glen	267 feet	1,3	W	Demonstrates foreground view of Facility from Egelston Road.
42	Auriesville Road (Montgomery County Scenic Byway)	Glen	380 feet	1,2,3	NE	Visual stakeholder concern of Montgomery Scenic Byway - Auriesville Road. View adjacent to residential dwelling.
44	Ingersoll Road (Montgomery County Scenic Byway)	Glen	305 feet	1,3	NNE	Vantage point is representative of Square Barn Corners on Ingersoll Road within vicinity of NY30A.
45	Van Epps Road & Ingersoll Road (Montgomery County Scenic Byway	Glen	480 feet	1,3	SSE	Demonstrates a representative view from Van Epps Road and Ingersoll Road, adjacent to the Facility Site. Also depicts view from dwelling on Ingersoll Road.
58	Boshart Road	Mohawk	1.94 miles	1,3	SSE	Vantage point demonstrates view from Boshart Road in vicinity of several rural-residential dwellings.
61	NY5, Rest Stop Overlook (Revolutionary Trail Scenic Byway and Mohawk Area #3 Marker)	Mohawk	2.15 miles	1,3	SSW	Photo taken to represent stakeholder concern of Rest Stop Overlook adjacent to the Revolutionary Trail Scenic Byway.



Viewpoint ID	Location	Town	Approximate Distance to Facility	LSZ	Cardinal Direction	Reason for Selecting
68	Ingersoll Road (Montgomery County Scenic Byway)	Glen	175 feet	1,3	NNW	Perspective illustrates proposed substation, solar arrays, and transmission structures from Ingersoll Road, in vicinity of residents.
69	Ingersoll Road (Montgomery County Scenic Byway)	Glen	288 feet	1,2,3	Z	Illustrates view of the POI Switchyard from Ingersoll Road (Montgomery County Scenic Byway), within the existing transmission right-ofway.
80	Mill Point Road (Glen Reformed Church and Glen Historic District)	Glen	0.49-mile	3,4	N	Representative view from the Glen Historic District and the Hamlet of Glen.
93	NY5 (Revolutionary Trail Scenic Byway)	Mohawk	0.54-mile	1,2,3	SSE	Photo captured in proximity to the Volkert Veeder-Ostrander House. Also documents view from Revolutionary Trail Scenic Byway.
94	Saint Kateri National Shrine and Historic Site	Mohawk	0.71-mile	2,3,4	S	Photo taken to represent Saint Kateri National Shrine and Historic Site, also demonstrates typical views from nearby resource (Revolutionary Trail Scenic Byway)
98	Van Epps Road (Montgomery County Scenic Byway)	Glen	1,520 feet	1,3	W	View showing cumulative effects of Van Epps Community Solar and Facility, as well as the Van Epps Road Montgomery County Scenic Byway.



Viewpoint ID	Location	Town	Approximate Distance to Facility	LSZ	Cardinal Direction	Reason for Selecting
L1*	New York State Barge Canal Historic District (Mohawk River)	Mohawk , Glen, Florida	3.48 miles	5	SW	LOS from NRHP listed Historic District, Mohawk River, Erie Canalway Trail, Snowmobile Trail (C7P), NYS Bicycle Route 5 (NY5S), and NY I-90.
L2*	Covenhoven House (NRHP listed - USN 05705.000071)	Glen	1.58 miles	1,2,3	NW	LOS from NRHP listed Covenhoven House, Snowmobile Trail (S72), NY30A, Montgomery County Scenic Byways (Logtown and Fisher Road), NRHP eligible Glen Village Cemetery.
L3*	Fonda Cemetery (NRHP eligible)	Mohawk	3.98 miles	2,3,4	SE	LOS from NRHP eligible Fonda Cemetery, Revolutionary Trail Scenic Byway, New York State Barge Canal Historic District (Mohawk River), NY I-90, Erie Canalway Trail, NYS Bicycle Route 5 (NY5S), Maple Avenue Cemetery, and Montgomery County Scenic Byways (Ingersoll and Auriesville Road).

^{*}LOS profile analysis

10.2.1 Discussion of Simulations

The following subsections describe the results of each photo-simulation which consist of discussions associated with potential changes to the character of the view, the identification of discernible Facility components, categorization of viewer constituency, and frequency of use. Simulations are presented as sets of existing and proposed conditions based on VP number and can be found in Revised Attachment 3. Also provisioned in Revised Attachment 3 is the illustration of proposed landscaping mitigation at approximately 0 to 2 years and 5 years subsequent of construction. Each photo-simulation depicts the proposed position of each planting in the proposed Landscape Plan. According to the Landscape Plan presented in Appendix 5-2 of



Revised Exhibit 5 Design Drawings and Revised Plan 6A of Revised Attachment 6, fully mature heights of the year-round coniferous species could possibly reach heights up to 40 to 60 feet in future years. To depict the seasonal changes of vegetation that affect viewer perception of the Facility, both leaf-on and leaf-off representations are captured in each photo-simulation VP location.

10.2.1.1 VP 31, Mill Point Road (Glen Historic District), View Northwest – Glen (LSZ 3,4; Distance 0.43-mile)

VP 31 demonstrates a representative view from the Glen Historic District. This photograph was obtained from Mill Point Road and is spatially between two residential dwellings. The view faces northwest toward the direction of the Facility.

Existing Conditions

The VP 31 photograph illustrates an elevated view from where several residential dwellings exist. The foreground primarily consists of trimmed lawn and two man-made ponds surrounded by single strand of mature deciduous trees. The midground is followed by sparsely found residential dwellings and farmsteads, open agricultural land, and intermittent forested areas. The background is identified by a predominantly vegetated, light blue hill, with a slight impression of building development and cleared land.

Proposed Conditions

In the VP 31 proposed conditions with landscaping (0 to 2 years), the midground beige fields are partially intersected by horizontal forms of solar arrays. These rectilinear forms are consistent with blue colors within the existing conditions (i.e., foreground pond, blue sky, and background landscape). Existing midground, deciduous-vegetation acts as a partial visual barrier and obstructs larger portions of the Facility. As shown in the VP 31 simulation with 5-year landscaping, a minor improvement in visual contrast is noticed. This is because the observer is elevated, and the solar panels are located down slope. Therefore, in this instance, landscaping would not be as effective in shielding the Facility. During seasons that support foliage on existing vegetation, the view of the Facility would be further diminished to relatively minor levels of visual change. Considering a vast number of viewers will be traveling by this view, it is assumed that the Facility will go unnoticed due to its subtle appearance. Some residential viewers will likely obtain a suitable amount of time to view the Facility from their property, but due to the presence of existing intervening vegetation, the moderate distance to viewable solar panels, the compatible colors of the Facility, and existing topography, only a small portion of solar panels will actually be seen.

10.2.1.2 VP 38, Egelston Road, View West – Glen (LSZ 1,3; Distance 267 Feet)

VP 38 provides a foreground illustration of the Facility from Egelston Road, a rural-residential road. This perspective is immediately north of one residential dwelling.



Existing Conditions

The existing conditions convey a rural-agricultural landscape with modest open views confined to the midground. Due to wavering topography, the background landscape is not discerned. From the foreground to the midground, harvested corn row stalks remain on vacant agricultural fields. Some development is present within the view, such as a livestock building and intermittently placed distribution structures. A small amount of sparse vegetation is available in the distant fields on the left side of the photograph.

Proposed Conditions

When reviewing the proposed conditions with 0 to 2-year landscaping, a partially unobstructed view to the Facility is available. Discernible detail within the foreground solar panels and fencing is seen. In this condition, the visual character of the landscape changes from rural-agricultural to a heavy utility use. While the 0 to 2-year landscaping provides a minor visual separation from the solar arrays, in 5-years, the landscaping matures to heights that conceal most the Facility. Minor distant sections of the solar arrays are partially seen over plant tops. Of the few travelers, and residents dwelling on Egelston road, visual change will be apparent until ample time is supplied for landscaping to mature and shield the entire Facility. Once landscaping reaching equivalent heights of the solar arrays, views will be mitigated to the fullest extent possible.

10.2.1.3 VP 42, Auriesville Road (Montgomery County Scenic Byway), View Northeast – Glen (LSZ 1,2,3; Distance 380 feet)

VP 42 is representative of what travelers or residents may experience from Auriesville Road where there are several arrays around the viewer in a rural agricultural setting. During the visual stakeholder outreach initiative (please refer to Section 6.1), one local stakeholder expressed a concern regarding views from Auriesville Road, which is recognized as a Montgomery County Scenic Byway, therefore, this selected VP provides information regarding the visual change that one may experience from this road.

Existing Conditions

The VP 42 photograph is oriented northeast in a manner that represents travelers heading northbound on Auriesville Road from the Hamlet of Glen. From this perspective, a few dwellings are generously spaced between active agricultural fields and tree hedgerows. A single residential dwelling is located approximately 150 feet to the right (east) of the viewer. Vegetated, or filtered views of the distant Adirondack Park are visible from this location to the north, northwest, and west directions. A minor amount of the Western Supreme Buddha Temple is present within the right portion of the photograph but is challenging to identify. Other existing industrial structures, buildings, as well as farmsteads dot the background landscape. Structures and conductors associated with the existing Marcy-New Scotland 345 kV transmission line are also discernible in the midground of the photograph as it runs perpendicular to the observer. As shown in Table 12-A, the existing conditions photograph received an average scenic quality rating of 1.8 out of 3, representing moderate scenic quality.



Proposed Conditions

In the proposed condition with landscaping (0 to 2 years), Facility components are visible in the middle ground of the view, to the left and right (north and east) of Auriesville Road. In the center and right of the photograph, to the east of Auriesville road, several solar arrays are visible in a former agricultural field. Additional Facility components can also be seen, including a detention basin, perimeter fencing, and landscaping. In the left portion of the photograph, to the north of Auriesville Road, portions of a few solar arrays can be seen in former agricultural fields. The view of the Facility on the left side of the photograph is moderated by distance, existing telecommunication lines, and existing residential structures. The view to the distant landscape consisting of the Mohawk Valley, Adirondack Park, and Western Supreme Buddha Temple remains unchanged after development of the Facility. In general, most viewers will be comprised of travelers (527 AADT) where ephemeral and partial views of the solar arrays are expected due to speed of travel (55 mph). A few residential dwellings are located within this area; where solar array visibility is predicted, existing tree hedgerows and proposed landscaping near the properties will likely reduce views to the solar arrays. As shown in Table 12-A, the proposed conditions, 0 to 2-year landscaping, leaf-on simulation received an average visual contrast rating of 15.7 out of 27, indicating that moderate visual contrast is introduced due to the Facility. However, proposed landscaping will provide visual moderation and softening of the solar arrays upon completion of Facility construction and increasing overtime, particularly during leaf-on conditions. During warm seasons and in due time, the proposed landscaping is anticipated to minimize the visible extents of the Facility from this general area of Auriesville Road.

10.2.1.4 VP 44, Ingersoll Road (Montgomery County Scenic Byway), Square Barns Corner, View North Northeast – Glen (LSZ 1,3; Distance 305 feet)

From Ingersoll Road and in the vicinity of NYS Route 30A, VP 44 represents a vantage point from the Square Barns Corner community in the Town of Glen. This VP is 1.25 miles north northwest from the Hamlet of Glen and is approximately 430-feet from the nearest residential dwelling, found northeast from the viewer.

Existing Conditions

The existing condition photograph depicts a harvested corn field. Although not distinguishable due to impeding topography, NY30A traverses laterally near the background forested vegetation. Topography is mostly level with minor undulating terrain gently receding away from the observer. The background environment is confined to the interfering mature deciduous and coniferous species forming a linear band. A single existing transmission structure is interspaced between the vegetation. This transmission structure is attributed to Marcy – New Scotland 345 kV transmission line. As shown in Table 12-A, the existing conditions photograph received an average scenic quality rating of 0.8 out of 3, representing weak scenic quality.



Proposed Conditions

With the Facility in view, several solar arrays follow in succession in repeated form, shape, and color. The background is partially intersected by the Facility but does not completely obstruct or shorten the continuous view to the background forest. The blue colors of the solar arrays and green colors of the landscaping are compatible with the existing blue sky and earth tones of the existing environment, thereby limiting the amount of visual contrast seen within the view. According to the rating panel results in Table 12-A, the proposed conditions, 0 to 2 year landscaping, leaf-on simulation received an average visual contrast rating of 15.8 out of 27, representing moderate visual contrast.

As shown in the simulation with proposed landscaping (0 to 2 years), the plantings will provide visual moderation and softening of the solar arrays once the Facility is constructed, however, during warmer seasons when foliage is present, most of the Facility will be screened in approximately 5 years post construction. As depicted in Table 2, Ingersoll Road is one of the least traveled roadways in the VSA (AADT 99). Therefore, a relatively small and limited number of local travelers will be affected. Local residents dwelling on Ingersoll Road will likely sustain longer static views of the Facility, however, as mentioned, during warming seasons and in due time, the proposed landscaping will minimize the visible extents of the Facility.

10.2.1.5 VP 45, Van Epps and Ingersoll Road (Montgomery County Scenic Byway), View South Southeast – Glen (LSZ 1,3; Distance 480 feet)

VP 45 was photographed from the intersection of Van Epps Road and Ingersoll Road, facing south-southeast. This VP was selected for simulation as it provides a representative view of the Facility from Van Epps Road (CR 116) and Ingersoll Road (CR 117), both a designated Montgomery County Scenic Byway. Additionally, this VP provides a view inclusive of a residential dwelling. This VP is located in Distance Zone 1, approximately 480 feet from the nearest visible solar array.

Existing Conditions

In the existing conditions photograph, Van Epps Road is partially seen on the right side of the image where a paved road sits on the crest of a distant hill. A white dwelling is seen on the left side of the image. When viewing the photo, the foreground is comprised of green mowed lawn, a paved driveway, and a gravel driveway which are framed by the white dwelling to the left and a large evergreen to the right. The midground recedes in elevation to an empty agricultural field where a few existing landscape trees are found abutting the field's edge. The field quickly slopes up to the background where a visible horizon is formed, consisting of the top of the agricultural field, sky, and a distant hill encompassed in forest vegetation. Electrical transmission wires are partially discernible as they laterally intersect the visible sky. As shown in Table 12-A, the existing conditions photograph received an average scenic quality rating of 1 out of 3, representing weak scenic quality.



Proposed Conditions

In the proposed condition simulation with 0 to 2 year landscaping, Facility components are visible in the center middle ground of the view, behind the white residential dwelling. In the center of the photograph, several solar arrays are visible in a former agricultural field, rising in elevation to the top of a small hill. Additional Facility components can also be seen, including perimeter fencing and landscaping. In the background of the view, the distant dark grey colored hill is no longer discernible, and portions of the existing horizon are obstructed by solar arrays.

As shown in Table 12-A, the proposed conditions, 0 to 2 year landscaping, leaf-on simulation received an average visual contrast rating of 18.2 out of 27, indicating that moderately strong visual contrast is introduced due to the Facility. This rating suggests that the Facility's moderately strong visual contrast will affect the weak scenic qualities of existing conditions. As illustrated in the VP 45 photo-simulation, landscaping is proposed around the solar arrays within the view and will provide some visual moderation and softening of visual contrast, but unobstructed views to the Facility will remain after 5-years post-construction due to the elevated positions of the viewer and solar arrays. Although limited in number, residents and commuters traveling through this area of Ingersoll Road (AADT 99) and Van Epps Road (AADT 527) will likely have partial fleeting views of the solar arrays. There are two residential dwellings in the vicinity of this vantage point; both will likely experience long durational views of the solar arrays from limited back portions of their respective property.

10.2.1.6 VP 58, Boshart Road, View South Southeast – Mohawk (LSZ 1,3; Distance 1.94 miles)

This viewpoint was selected to represent a Distance Zone 2 view to the Facility from a local residential road, north of the Mohawk River and the Facility.

Existing Conditions

The current condition photograph of VP 58 illustrates a sweeping view of the Mohawk River Valley. The actual sighting of the Mohawk River is obstructed by existing vegetation and topography. This vantage point is described as rural-agricultural and rural-residential. A series of single-residential dwellings are located behind the observer. From the existing photograph, the foreground view depicts a harvested field bordered by a mixed forest of deciduous and coniferous trees. The mid ground is characterized by intermittent forest groups, vacant fields, and building development within the downslope of the rising hill. The background is conveyed by the light blue, rising topography that is co-dominantly encompassed with cleared plots of land and forest. Small, congregated areas of development are discernible toward the center of the distant topography. Although challenging to identify, the existing Marcy-New Scotland 345 kV transmission line is found within midground.

Proposed Conditions

In the VP 58 simulation with 0 to 2-year landscaping, color changes are marginally seen within the background landscape. These colors consist of light blue hues that can reasonably be



confused with pockets of water, or waterbodies. Due to the substantial distance between the viewer and the Facility (1.94 miles), ornate detail is absent, and minor forms and colors are left. Because the visual change is underwhelming, it is not expected that travelers would be able to see the Facility when considering travel speed and driver focus on the forward road. Local residents along Boshart Road would be required to halt their position and attentively focus on the distant landscape to view the Facility, however, because of its relatively minor impression, standing viewers will unlikely perceive this change.

10.2.1.7 VP 61, Rest Stop Overlook, NY5 (Revolutionary Trail Scenic Byway), View South Southwest – Mohawk (LSZ 1,3; Distance 2.15 miles)

This VP is located at the Rest Stop Overlook adjacent to NY5 (Revolutionary Trail Scenic Byway). Within the context of the VSA, this elevated VP conservatively represents southwardly views from the most elevated sections of NY5. This VP also represents a limited area where visibility of the Facility is predicted on NY5 between the Village of Fonda and Tribes Hill.

Existing Conditions

When viewing the existing conditions photograph, the foreground consists of mixed land use of agricultural and a small amount of greenspace, where amenities such as picnic tables are available. The midground is comprised of rural aggregated development consisting of dwellings and buildings and two large horizontal groups of mature trees divide open agricultural lands and development area. A distant and partially prominent landform is discernible where several agricultural fields and isolated farmsteads dot the landform's slope. From this particular vantage point, views of the Mohawk River are precluded by foreground topography and existing deciduous vegetation. As shown in Table 12-A, the existing conditions photograph received an average scenic quality rating of 2 out of 3, representing moderate scenic quality. This rating indicates that the NY5 Rest Stop Overlook has moderate scenic qualities.

Proposed Conditions

When viewing the proposed condition, the Facility is found within a few distant beige fields in the background of the photograph. Due to the distance of the visible Facility from this location (2.15 miles), individual textures and details of the solar panels are replaced by simple linear forms and dark blue colorations that mimic similar forms and colors of the existing forest and tree hedgerows found in adjacent fields. The solar panel's physical presence does not impede the ability to observe the Mohawk Valley and the distant rolling hills. As shown in Table 12-A, the proposed conditions, 0 to 2 year landscaping, leaf-on simulation received an average visual contrast rating of 6.7 out of 27, representing weak visual contrast. This rating means that the appearance of the Facility will not cause a significant negative visual effect to the scenic value of the NY5 Rest Stop Overlook.



10.2.1.8 VP 68, Ingersoll Road (Montgomery County Scenic Byway), View North Northwest – Glen (LSZ 1,3; Distance 175 feet)

VP 68 is located on Ingersoll Road in Glen, approximately 175 feet south of a small solar array. This VP is in the vicinity of several residences beyond the extents of the photograph, one located immediately behind the viewer to the south, one to the east, and two roughly 840 feet to the west. The vantage point is oriented toward the proposed substation and transmission structures.

Existing Conditions

The existing conditions photograph is oriented to the north-northwest into an open agricultural field of cultivated corn row crops, visible within the foreground and middle ground of the photograph. In the background, intermediate deciduous tree hedgerows obstruct partial sight lines to a distant agricultural field bounded by a dense forest comprised of mixed deciduous and coniferous trees. As shown in Table 12-A, the existing conditions photograph received an average scenic quality rating of 0.8 out of 3, representing weak scenic quality.

Proposed Conditions

In the proposed condition simulation with 0 to 2 year landscaping, Facility components are visible in the middle ground and background of the view. In the middle ground of the view, portions of twelve solar panels can be seen, tilted away from the viewer. Additionally, the perimeter fence and proposed landscaping can also be seen. In the background of the view, some trees have been removed from the right portion of the photograph to facilitate Facility construction. Additionally, one proposed transmission pole can be seen just above the horizon.

As shown in the simulation, proposed landscaping will provide visual moderation and softening of the solar array upon completion of Facility construction, increasing overtime, particularly during leaf-on conditions. As shown in Table 12-A, the proposed conditions, 0 to 2 year landscaping, leaf-on simulation received an average visual contrast rating of 19.3 out of 27, indicating moderately strong visual contrast due to the Facility. However, when reviewing the simulation with landscaping shown in 5-years post-construction, visibility of the solar arrays and perimeter fence is nearly fully minimized by the presence of landscaping vegetation, thereby reducing most of the discernible contrast. During warm seasons and in due time, the proposed landscaping will further minimize the visible extents of the Facility from this general area of Ingersoll Road.

10.2.1.9 VP 69, Ingersoll Road (Montgomery County Scenic Byway), View North – Glen (LSZ 1,2,3; Distance 288 feet)

VP 69 was prepared as a simulation to represent the closest vantage point to the proposed POI components from Ingersoll Road, also known as a Montgomery County Scenic Byway. It is important to note that this photograph is not representative of what residents may discern from their properties, but rather what travelers may experience when driving past the Facility on Ingersoll Road. The observer is oriented north toward the POI switchyard, at a distance of 288 feet to the nearest visible component. The closest dwelling is 375 feet west from this position.



Existing Conditions

The general landscape characteristics of the existing view is described as rural-agricultural, forested, and developed. Contrary to what the photograph illustrates, the existing Marcy-New Scotland 345 kV transmission line rises over the observer. From the photo's foreground, a private gravel entrance quickly transitions to a harvested corn crop field. The midground is composed of the back extent of the agricultural field where a dense forested wall of trees is found. The visible forest impedes a distant view to the background environment.

Proposed Conditions

As shown in the VP 69 photo-simulation with 5-year landscaping, a portion of the POI switchyard is unobstructed where large components consisting of takeoff structures, bus equipment, insulators, and conductors are seen; however, Type A landscaping is proposed beyond the path of the overhead lines to soften views to a segment of the switchyard. Adjacently left of this landscaping is the Type C landscaping template that serves as a naturalization area where successional growth will be encouraged and retained, and in due time will provide additional screenings. Overall, the character of this view will be changed from rural fields to utility infrastructure conditions, although, this would be considered an incremental change as the existing Marcy-New Scotland 345 kV transmission line is found adjacent to the POI switchyard (beyond extents of the photo). While viewers that may experience this view are limited to local travelers, there will already be an established visual expectation of discerning existing (utility) transmission structures when crossing through this section of Ingersoll Road.

As mentioned, this perspective is limited to local travelers; the closest rural-residential dwellings to the east are treated with more comprehensive screening comprised of Type A landscaping. This landscaping is sited near the contiguous property lines to increase the visible scale of the plantings, thereby providing a more meaningful screening effect to the POI switchyard.

10.2.1.10 VP 80, Glen Historic District, NY 161 (Mill Point Road), View North Northwest – Glen (LSZ 3,4; Distance 0.49-mile)

This vantage point is representative of what may be observed from areas of predicted visibility from within the Glen Historic District, as well as the Hamlet of Glen. The VP 80 photograph was captured from the Glen Reformed Church, a NRHP-listed historic building. This representative condition conveys an open or unobstructed view of the solar array. It is not guaranteed that other places in the Hamlet of Glen will have clear views to the Facility due to potential obstructions such as vegetation or single trees located on or near residential properties. For example, as noted in the VP 80 existing conditions, distant buildings or vegetation, such as the distant stark-white building and/or tree vegetation may interfere with direct views to the Facility. Leaf-on vegetated conditions during warmer seasons may further mitigate views of the Facility. As mentioned in Section 6.0, on July 14, 2023, OPRHP determined there will be "no above ground concerns, as the solar array visibility from the Glen Historic District will be limited".



Existing Conditions

When viewing the existing conditions photograph, the foreground consists of manicured lawn, residential fencing, and a few coniferous trees. As the view is elevated, midground building rooftops are more prominent due to topography change and color contrast (blue/gray roofs) against the tans and browns of the agricultural fields. Also, in the midground are a few strands of isolated mature trees and local overhead electric structures running intermittently along or near the partially visible roadway (Auriesville Road). One can also note the existing Marcy-New Scotland 345 kV transmission line as indicated by the H-frame structures found above the distance beige field. The background is comprised of a distant landscape with views of the Mohawk Valley and the foothills of the Adirondack Mountains. Separation of the midground and background are clearly evident by the line and color of the agricultural fields against the dark, blue hues of the distant landform. As shown in Table 12-A, the existing conditions photograph received an average scenic quality rating of 1.7 out of 3, representing moderate scenic quality.

Proposed Conditions

As depicted in the proposed condition simulation with 0 to 2 year landscaping, the solar array is identified as a blue horizontal form within part of the distant beige field. Isolated strands of deciduous trees, coniferous trees, and a white building collectively intersect and partially interrupt the direct view of the Facility. Compositionally, the Facility's color values (blue) are comparable to the distant landscape's blue hues, allowing the Facility to be partially absorbed and moderated. Existing structures and buildings within the view (blue and white metallic roofs) contribute to existing visual contrast against the view to the Mohawk Valley and foothills of the Adirondack Mountains. According to the rating results shown in Table 12-A, the proposed conditions, 0 to 2 year landscaping, leaf-on simulation received an average visual contrast rating of 11 out of 27, representing weakly moderate visual contrast. The proposed landscaping shown in 5-years post-construction provides a soft buffer to the sharp lines formed at the base of the solar arrays. As more time is allowed, the plantings will reach greater heights and further reduce the appearance of the Facility from this vantage point.

10.2.1.11 VP 93, NY5 (Revolutionary Trail Scenic Byway), View South Southeast – Mohawk (LSZ 1,2,3; Distance 0.54-mile)

VP 93 was photographed from NY5, which is also recognized as the Revolutionary Trail Scenic Byway. This location is also a representative view near the NRHP eligible Volkert Veeder-Ostrander House (Building D; USN 05707.000054). The photographer is facing south southeast toward the direction of the nearest proposed solar array at a 0.54-mile distance.

Existing Conditions

In the VP 93 existing photograph, the foreground view is comprised of an active railroad track and gravel surfaced maintenance road that abuts an agricultural field bordered by deciduous tree hedgerows. The midground enters the view as low-lying vegetation marches up the sloping hill. A single residential dwelling with greenspace is noted on the left of the photograph, however, a



larger section of the midground is occupied with the existing Marcy-New Scotland 345 kV transmission line. Within the photo, several h-frame structures, lattice structures, and mixed woodlots extend above the crest of the hill and recede into the indistinguishable background.

Proposed Conditions

In the proposed conditions, a filtered view through foreground vegetation to a dark, shadowed swathe, is introduced at the hilltop. This shadowed swathe replicates the existing patterns of dark stretches of low-lying shrub/scrub vegetation. During seasons that support leaf-on conditions, the combination of existing vegetation and proposed landscaping will fully screen the Facility. Since the visual change is considered relatively minor from this vantage point, viewers, whether they are traveling or residing by this section of NY5, are very unlikely to be visually affected by the Facility.

10.2.1.12 VP 94, NYS Route 5, Saint Kateri National Shrine and Historic Site, View South – Mohawk (LSZ 2,3,4; Distance 0.71-mile)

The Saint Kateri National Shrine and Historic Site consists of several built structures, most notable is the NRHP-listed Tekakwitha Friary (H.D.F. Veeder House). As previously mentioned, the Saint Kateri National Shrine and Historic Site is not an officially recognized federal or state historical site, however, in lieu of official status, the site was included in the VIA and categorized as a local resource. Despite the above, the local resource categorization does not discount the Federally recognized NRHP listed Tekakwitha Friary (H.D.F. Veeder House) resource found on the site.

Existing Conditions

VP 94 was captured from within the Saint Kateri National Shrine and Historic Site from an elevated slope where greenspace meets existing forest. This VP is in the vicinity of a gravel surfaced walking trail and is within distance to several religious statues and monuments. Along this sloped area of the site, several ornamental deciduous and coniferous trees in the foreground frame the view of the vegetated background hillside. The crest of the distant hill illustrates patches of open fields divided by tree hedgerows. Two existing H-frame transmission structures stand above the hill and continue beyond the extents of the photograph. Midground elements in the existing conditions photograph are comprised of isolated mature conifers, a moderate area of greenspace, a parking lot, and an ancillary building. As shown in Table 12-A, the existing conditions photograph received an average scenic quality rating of 1.3 out of 3, representing weakly moderate scenic quality. It is likely the solar arrays would not be discernible during leaf-on conditions when user activity is usually the highest. Limited visibility to the Facility from the Saint Kateri National Shrine and Historic Site will not preclude visitors from enjoying the site's greenspace and amenities.

Proposed Conditions

With the Facility in place, a thin blue band consisting of solar arrays is intermittently distinguishable at the crest of the distant hill where several existing deciduous trees and bare tree canopies overlay with the solar array. Depending on the season, the Facility may not always be perceived from this vantage point. For example, the solar arrays will be less visible during seasons



with leaf-on foliage when viewer activity is typically more prevalent, whereas colder months (as presented in the simulation) will sustain less viewer activity and an increase in Facility visual contrast due to lead-off conditions. As shown in Table 12-A, the proposed conditions, 0 to 2 year landscaping, leaf-on simulation received an average visual contrast rating of 8.2 out of 27, representing weak visual contrast.

10.2.1.13 VP 98, Van Epps Road (Montgomery County Scenic Byway), View West – Glen (LSZ 1,3,4; Distance 1,520 feet)

VP 98 was photographed from Van Epps Road, facing west. This VP was selected for simulation as it provides a cumulative view of an existing solar generation facility (see Section 3.6) and the proposed Facility. Additionally, this VP provides a representative view of the proposed Facility from Van Epps Road (County Route 116), a designated Montgomery County Scenic Byway. This VP is located in Distance Zone 1, approximately 1,520 feet from the nearest visible solar panel.

Existing Conditions

In the existing conditions photograph, the foreground consists of an abundance of mowed grasses. In the middle ground of the photo, a portion of the existing Van Epps and Mohawk View Community Solar facility can be seen. his existing facility is not associated with the proposed Mill Point Solar I Facility. Visible components of the Van Epps and Mohawk View Community Solar Facility include a perimeter security fence and several solar panels. In the background of the photograph, a hedgerow of trees can be seen just above the horizon where a single H-frame transmission structure is partially discernible. This structure is attributed to the existing Marcy-New Scotland 345 kV transmission line. As shown in Table 12-A, the existing conditions photograph received an average scenic quality rating of 0.8 out of 3, representing weak scenic quality.

Proposed Conditions

When viewing the proposed condition simulation, visual change is mostly unnoticed, however, if close attention is provided to the center of the image where background vegetation is seen, a small portion of the Facility is juxtaposed within this vegetation. As shown in Table 12-A, the proposed conditions, 0 to 2 year landscaping, leaf-on simulation received an average visual contrast rating of 2 out of 27, representing very weak visual contrast.

Landscaping is not proposed in this view because of the presence of existing deciduous vegetation and the existing solar facility (Van Epps & Mohawk View Community Solar) shielding views to the Facility. Additionally, according to a plan graphic of the Van Epps & Mohawk View Community Solar's website (Van Epps & Mohawk View — Eden Renewables, 2021), if implemented, their proposed landscaping (consisting of native trees and shrubs) would likely support a diminishing view of both existing and proposed facilities. Therefore, the viewers from Van Epps Road would unlikely discern any visual change from this view.



10.2.2 Discussion - Line of Sight Results

LOS profiles were completed to address state aesthetic resources, as required in 19 NYCRRR Section 900.2.9 (b)(1). This regulation states specifically that LOS profiles only be completed for statewide resources of concern. As noted in Table 5, a total of five state resources were predicted to experience solar panel visibility (see Section 10.1.1.2 for a description of each visible resource). LOS profile analyses were prepared from all five state resources (LOS profile L2 of Revised Attachment 3 contains four individual vantage points to the Facility as illustrated by the orange, green, blue, and red sight lines). These LOS profiles also traverse through several additional state resources (see Revised Attachment 3). The results of each LOS profile are further described as follows.

10.2.2.1 L1 – Mohawk River, New York State Barge Canal Historic District, View Southwest (LSZ 5; Distance 3.48 miles, Distance Zone 2)

The LOS L1 profile was performed from within Distance Zone 2 at the Mohawk River which is recognized as the New York State Barge Canal Historic District (NRHP listed). This LOS was delineated in a southwest direction at a length of 3.48 miles to the potentially visible solar array. Several additional visual resources are noted along the LOS path and include the Erie Canalway Trail, Snowmobile Trail (C7P), and NYS Bicycle Route 5, however, as shown in the LOS L1 profile, none of these resources will discern the Facility because of intervening topography and existing forest.

As mentioned, the LOS originates from the Mohawk River, which is also known as the New York State Barge Canal Historic District, where a minor amount of potential solar array discernability was detected. As seen in the LOS L1 profile, a few solar arrays may be distinguishable at the crest of hill located over 3.48 miles away from the Mohawk River. At this substantial distance, solar panels are expected to contribute minorly to the landscape and may not be perceived by viewers due to limitations (acuity) of human vision. At these far viewing distances, objects in the background become homogenous in form and shape and textures and colors are subdued due to atmospheric haze. Therefore, a majority of the visitors who use this area of the Mohawk River for recreational boating and/or paddling will not discern the Facility, nor will the qualities or characteristics of the New York State Barge Canal Historic District be visually affected.

10.2.2.2 L2 – Covenhoven House, View Northwest (LSZ 1,2,3; Distance 1.58 miles; Distance Zone 2)

The LOS L2 profile originates from the NRHP-listed Covenhoven House located on 141 Reynolds Road in the Town of Glen. The observer in the LOS is oriented northwest to a solar array approximately 1.53 miles away. This LOS profile additionally traverses through resources such as the NYS (S72) Snowmobile Trail and the NRHP-eligible Glen Village Cemetery. According to the results of the LOS L2, all three resources may discern a small, confined number of solar panels at a far distance above tree canopies, but not the entirety of the Facility. Please see VP 26 of the Facility Photolog in Attachment 2 for a representative view adjacent to the Covenhoven House toward the direction of where the Facility would be potentially visible (over 1.53 miles



away). The Covenhoven House is privately owned, therefore public access and potential viewers are infrequent and limited in number.

The LOS L2 also demonstrates a vantage point from the NYS S72 Snowmobile Trail which is denoted by a green line that extends from the snowmobile trail to the visible solar array. This section of the S72 Snowmobile Trail crosses over private land in a northeast to southwest direction and a recreational viewer accessing this limited and brief area of trail would need to direct their attention approximately 90 degrees to the northwest to view the Facility. Therefore, users of this snowmobile trail are unlikely to experience a glimpse of the distant solar array when traveling at moderate speeds as attention is generally focused on the forward direction of travel.

The Glen Village Cemetery (NRHP eligible) viewer's position depicted in the L2 LOS is from an unobstructed and publicly accessible viewing area of the cemetery. From this position, a small group of solar arrays may be discernible as indicated by the red perspective line within the LOS. Typical viewer groups may be those visiting the cemetery to mourn, or individuals interested in the historic setting and character of the cemetery. Due to the notable distance (0.9-mile) of the observer at the cemetery to the visible solar array (see VP 29 of Facility Photolog), it is unlikely a viewer would distinguish the Facility.

10.2.2.3 L3 – Fonda Cemetery, View Southeast (LSZ 2,3,4; Distance 3.98 miles; Distance Zone 2)

LOS L3 profile was performed from the Fonda Cemetery (NRHP eligible), adjacent to Cemetery Road in the Village of Fonda. This LOS is oriented southeast where a few solar panels were predicted to be distinguishable at a far distance of approximately 4 miles. Even though visibility was predicted to occur, the appreciable distance at which a relatively small number of solar panels may be visible would be particularly difficult for most individuals to identify within the landscape. This is due to the limitations of human vision and real-time atmospheric effects of the local weather conditions (e.g., atmospheric haze, fog, or accumulation, etc.) that affect the ability to perceive slim profile objects (solar arrays) within the context of other larger landscape components (e.g., dwellings, structures, and forested vegetation). Additionally, foreground vegetation and dwellings are present in and around the Fonda Cemetery, which may further interrupt a direct view to the visible solar array.

Several other visual resources were identified along the LOS pathway including the Revolutionary Trail Scenic Byway (NY5), the Fonda Speedway and the Montgomery County Fairgrounds, the New York State Barge Canal Historic District, the Erie Canalway Trail, NYS Bicycle Route 5, and the Maple Avenue Cemetery. These resources do not contain views of the Facility within the extents of the LOS profile due to intervening structures, mature vegetation, and topography.

10.3 Visual Impact Rating Results

Section 9.0 briefly describes the concepts and methodology applied to rating visual change caused by the proposed Facility through the process of evaluating photo-simulations. A landscape plan is proposed for the Facility (see Section 11.11 for the abbreviated landscape plan and Appendix 5-2 for the full landscape plan), therefore, simulations illustrating representative views



of the Facility with 0 to 2-year vegetative landscaping were rated against the existing condition photograph to evaluate contrast presented during the most visible conditions post-construction.

For further information regarding visual impact minimization and mitigation, please refer to Section 11.0 and Revised Attachment 6. Photo-simulations illustrating vegetative landscaping post-construction (within 0 to 2 years) and within 5 years are presented in Revised Attachment 3.

In completing this effort, three panelists evaluated and rated the simulations; Panelists 1 and 2 have been trained in the field of landscape architecture, and Panelist 3 is a landscape designer. All three individuals are experienced evaluators and have completed ratings on previous solar facility applications. A description of the methodology used in the rating process is contained in Revised Attachment 5, as well as panelist qualifications, and the completed evaluation forms for each simulated VP.

Initial training on how to use the visual forms was performed and the intention of each category was explained to the panelists. Along with the simulations, to complete the ratings, Facility location information, including a Google Earth KMZ file, was provided to help the panelists better understand and visualize the environment around a given VP, which might otherwise have not been captured in the photo itself. The terrain and street view features available on the Google Earth platform provided panelists the ability to discern if other residences or vegetation were present or in the vicinity while also allowing them to view different angles. The panelists then applied the contrast ratings singularly and independently without consultation with or from any other party.

Table 12-A below summarizes and averages the final rating scores completed by the rating panelists for Part 1 Visual Contrast, Part 2 Viewpoint Sensitivity, and Part 3 Existing Scenic Quality. For example, as illustrated in Table 12-A, VP 45 was identified as having a moderately strong visual contrast rating, weakly moderate viewer sensitivity rating, and weak scenic quality rating.



Table 12-A. Visual Impact Rating Results With 0 to 2-Year Landscaping

VP	Location	Rating Panelist 1			Rat	Rating Panelist 2			Rating Panelist 3			Average Ratings		
VI	Location	Part 1 ^A	Part 2 ^B	Part 3°	Part 1 ^A	Part 2 ^B	Part 3°	Part 1 ^A	Part 2 ^B	Part 3°	Avg Part 1 ^A	Avg Part 2 ^B	Avg Part 3°	
31	Mill Point Road (Glen Historic District)	10	15.5	2	9	13.5	1.5	9	14.5	2	9.33 WM	14.5 M	1.83 M	
38	Egelston Road	20	5.5	1.5	19.5	5	1	21	4.5	1	20.16 MS	5 W	1.16 WM	
42	Auriesville Road (Montgomery County Scenic Byway)	17.5	12	2	15	12	1	14.5	13.5	2.5	15.7 M	12.5 M	1.8 M	
44	Ingersoll Road (Montgomery County Scenic Byway)	15	11.5	1	16	11	0.5	16.5	10.5	1	15.8 M	11 WM	0.8 W	
45	Van Epps Road & Ingersoll Road (Montgomery County Scenic Byway	19.5	12.5	1	18	11	1	17	12	1	18.2 MS	11.8 WM	1 W	
58	Boshart Road	3.5	6	2	3.5	7	1.5	6.5	5	2	4.5 VW/W	6 W	1.83 M	
61	NY5, Rest Stop Overlook (Revolutionary Trail Scenic Byway and Mohawk Area #3 Marker)	6	13	2	3.5	11	1.5	10.5	15	2.5	6.7 W	13 M	2 M	
68	Ingersoll Road (Montgomery County Scenic Byway)	17	10.5	1	19.5	10.5	0.5	21.5	11	1	19.3 MS	10.7 WM	0.8 W	
69	Ingersoll Road (Montgomery County Scenic Byway)	19.5	9.5	1	19.5	9	1	16	9.5	.5	18.33 MS	9.33 WM	0.83 W	



80	Mill Point Road (Glen Reformed Church and Glen Historic District)	11.5	12.5	1.5	9.5	13	1	12	12.5	2.5	11 WM	12.7 M	1.7 M
93	NY5 (Revolutionary Trail Scenic Byway)	3.5	13	1.5	4.5	10	1	7.5	11	0.5	5.16 W	11.33 WM	1 W/WM
94	Saint Kateri National Shrine and Historic Site	11.5	12.5	1.5	8.5	13	1	4.5	10	1.5	8.2 W	11.8 WM	1.3 WM
98	Van Epps Road (Montgomery County Scenic Byway)	0.5	11	1	2	11.5	1	3.5	9	0.5	2 VW	10.5 WM	0.8 W

VW=very weak, W=weak, WM= weakly moderate, M=moderate, MS=moderately strong, S=strong

APart 1: Visual Contrast Rating (0 to 2 Years Post-Construction); BPart 2: Viewpoint Sensitivity Rating; CPart 3: Existing Scenic Quality Rating



10.3.1 Part 1 Visual Contrast Rating With 0 to 2-Year Landscaping

Part 1 of the Visual Impact Rating Form instructs the panelists to evaluate proposed visual change against the existing environments' condition with respect to compositional elements such as newly introduced lines, shapes, colors, facility scale, and broken horizon lines. As described in Section 9.0, Part 1 has a total possible rating ranging from 0 to 27. As shown in Table 12-A, average contrast ratings across the 13 simulations ranged from 2 to 20.16 indicating very weak to moderately strong visual impacts. These ratings evaluate the Facility with landscaping within 0 to 2 years post-construction and do not account for plant maturation (landscaping at 5 years post-construction) which is expected to further reduce the visibility and contrast of the Facility. The existing photographs depict existing vegetation during leaf-off conditions (no foliage); therefore, the rating results do not consider the visual screening effects of existing vegetation during leaf-on conditions that may diminish or preclude views to the Facility.

VP 68 (Ingersoll Road, Montgomery County Scenic Byway), VP69 (Ingersoll Road), and VP38 (Egelston Road) had the highest visual contrast rating with an average score of 19.3, 18.33, and 20.16 out of 27, respectively. This represents a moderately strong visual contrast resulting from the mostly distinguishable solar panels or POI switchyard within the foreground of the view. However, as noted in the screening/mitigation comment of the rating forms (see Revised Attachment 5), all panelists concur that landscaping will provide adequate screening for VPs 38 and 68 when plantings reach heights as tall as the solar panels. Similarly, VP 45 (Van Epps Road and Ingersoll Road, Montgomery County Scenic Byways) received the second highest visual contrast rating with an average score of 18.2 out of 27, indicating moderately strong visual contrast. However, contrary to VPs 38, 68, and 69; VP 45 may not fully benefit from proposed landscaping due to the elevated position of the observer and the sloping nature of the existing topography where the solar array is located.

VP 44 (Ingersoll Road, Montgomery County Scenic Byway) and VP 42 (Auriesville Road, Montgomery County Scenic Byway) had visual contrast ratings with an average score of 15.8 and 15.7 out of 27, respectively. This represents moderate visual contrast resulting from the visibility of solar panels within the middle ground of the views. However, panelists note that proposed landscaping is expected to provide adequate screening of these VPs over time once plantings reach heights sufficient to screen the extent of the solar panels.

VPs 80 (Mill Point Road, Glen Reformed Church and Glen Historic District) and 31 (Glen Historic District) had a visual contrast rating with an average score of 11 and 9.33 out of 27. This represents weakly moderate visual contrast. Panelists noted that although Facility components are visible from this VP, the Facility size is weak in relation to the rest of its surroundings and fine details are not apparent due to the distance between the viewer and the Facility.

VPs 94 (Saint Kateri National Shrine and Historic Site), 61 (NY5, Rest Stop Overlook, Revolutionary Trail Scenic Byway and Mohawk Area #3 Marker), 58 (Boshart Road), and 93 (Revolutionary Trail Scenic Byway) had visual contrast ratings with an average score of 8.2, 6.7, 4.5, and 5.16 out of 27, respectively. This represents weak visual contrast. For VP 94, panelists noted that visual contrast is minimized due to existing vegetation and the distance between the



viewer and the Facility. For VPs 58, 61, and 93 panelists noted minimal visual acuity of the Facility due to the significant distance between the viewer and the Facility, and that visual contrast was difficult to discern compared to surrounding vegetation and structure.

VP 98 (Van Epps Road, Montgomery County Scenic Byway) had the lowest visual contrast rating with an average score of 2 out of 27. This represents very weak visual contrast. The panelists noted minimal to no detectable change in visual contrast with simulation of the proposed Facility. They noted that the Facility was minimally visible from this VP and that existing vegetation provided further minimization of Facility visibility.

10.3.2 Part 2 Viewer Sensitivity

Part 2 of the Visual Impact Rating Form evaluates the level of sensitivity expected at a VP location. This rating criteria examines characteristics such as viewer groups, number of viewers, duration of view, and visibility of or proximity to visually sensitive resources. This part is pertinent to ratings of viewer sensitivity that should not be confused with the ratings of visual contrast. As described in Section 9.0, Part 2 has a total possible rating ranging from 0 to 24. As shown in Table 12-A, average viewpoint sensitivity ratings across the 13 simulations ranged from 10.5 to 13, indicating weakly moderate to moderate sensitivity.

VP 31 (Glen Historic District), VP 61 (NY5, Rest Stop Overlook, Revolutionary Trail Scenic Byway and Mohawk Area #3 Marker), VP 80 (Mill Point Road, Glen Reformed Church and Glen Historic District), and VP 42 (Auriesville Road, Montgomery County Scenic Byway) had the greatest sensitivity ratings with average scores of 14.5, 13, 12.7, and 12.5 out of 24, respectively. These values represent moderate viewer sensitivity. All three VPs are located within a visual resource and are classified as a listed or known scenic resource, contributing to the moderate rating.

VP 93 (Revolutionary Trail Scenic Byway), VP 69 (Ingersoll Road, Montgomery County Scenic Byway), VP 45 (Van Epps Road & Ingersoll Road, Montgomery County Scenic Byway), VP 94 (Saint Kateri National Shrine and Historic Site), VP 44 (Ingersoll Road, Montgomery County Scenic Byway), and VP 98 (Van Epps Road, Montgomery County Scenic Byway) have sensitivity ratings with average scores of 11,33, 9.33, 11.8, 11.8, 11, 10.7, and 10.5 out of 24, respectively. These values represent weakly moderate viewer sensitivity. VPs 45, 44, 68, 69, 93, and 98 are located within a visual resource and are classified as a listed or known scenic resource, contributing to the weakly moderate rating. VP 94 is located within a visual resource, with a view of another visual resource, contributing to the weakly moderate rating. Other viewer sensitivity criteria, such as number of viewers, duration of view, and uniqueness compared to region, were rated moderate to none.

VP 38 (Egelston Road) and VP 58 (Boshart Road) are local rural-residential roads that received the lowest viewer sensitivity averaged rating of 5 and 6 out of 27, respectively. These ratings represent a weak value, meaning viewer sensitivity would be minimally expected.



10.3.3 Part 3 Existing Scenic Quality

Part 3 of the Visual Impact Rating Form evaluates the overall scenic quality of a VP's existing conditions. For this rating, there is no evaluation of visual change due to construction and operation the Facility, it is only an appraisal of the scenic quality of the existing view. As described in Section 9.0, Part 3 has a total possible rating ranging from 0 to 3. As shown in Table 12-A, average scenic quality ratings across the 13 simulations ranged from 0.8 to 2, indicating weak to moderate scenic quality.

VP 61 (NY5, Rest Stop Overlook, Revolutionary Trail Scenic Byway and Mohawk Area #3 Marker), VP 42 (Auriesville Road, Montgomery County Scenic Byway), VP 31 (Glen Historic District), VP 31 (Boshart Road), and VP 80 (Mill Point Road, Glen Reformed Church and Glen Historic District) had the highest average scenic quality ratings with values of 2, 1.8, 1.83, 1.83 and 1.7 out of 3, respectively. These ratings represent moderate scenic quality. These VPs were rated moderately for their open views of rolling hills, natural appearance, unique features, and general scenic quality.

VP 94 (Saint Kateri National Shrine and Historic Site), VP38 (Egelston Road), and VP 93 (Revolutionary Trail Scenic Byway) had a lower average scenic quality rating with a value of 1.3, 1.16, and 1 out of 3, respectively. This rating represents a weakly moderate scenic quality. While VPs 93 and 94 are located on or near the Revolutionary Trail Scenic Byway, they do not provide an expansive view of the landscape. Overall, panelists noted that these VPs contain a minor number of unique features with an appearance typical to the region.

VP 45 (Van Epps Road & Ingersoll Road, Montgomery County Scenic Byway), VP 44 (Ingersoll Road, Montgomery County Scenic Byway), VP 68 (Ingersoll Road, Montgomery County Scenic Byway) and VP 98 (Van Epps Road, Montgomery County Scenic Byway) had the lowest average scenic quality ratings with values of 1, 0.8, 0.8, 0.83, and 0.8 out of 3, respectively. Even though these VPs are located on Montgomery County Scenic Byways, the ratings represent weak scenic quality. These VPs do not provide an expansive view of a large landscape. Panelists noted a lack of unique features and low visual interest with an appearance typical to the region.

10.3.4 Part 4 Visual Contrast Ratings With 5-Year Landscaping

A second series of visual contrast ratings of the Facility was completed as under this part to determine the effectiveness of the Facility with proposed 5-year landscaping in conjunction with minimizing and moderating Facility contrast. For Part 4 ratings, the same panelists who rated Parts 1 through 3 were instructed to examine the photo-simulations with 0 to 2-year landscaping against photo-simulations with 5-year landscaping from each simulated viewpoint location. Panelists were then prompted to rate the change in visual contrast using the same nine rating elements as described in Part 1 (see Revised Attachment 5 for the complete Part 1 rating methodology). The Part 4 averaged contrast rating results are calculated using the Part 4 Visual Contrast Rating Scale, which is available to review in Table 6E in Section 9.0 above. The Part 4 rating forms, results, and qualifications of each panelist are provided in Revised Attachment 5. As



shown in Table 12-B below, the average rating results of Part 1 – Contrast Ratings With 0 to 2-Year Landscaping are juxtaposed with the average rating results of Part 4 – Contrast Ratings of Facility With 5-Year Landscaping.

Table 12-B. Visual Impact Rating Results: 0 to 2-Year and 5-Year Landscaping

VP	Viewpoint Location	Avg Part 1 –Contrast Ratings With 0 to 2- Year Landscaping	Avg Part 4 –Contrast Ratings With 5-Year Landscaping
31	Mill Point Road (Glen Historic District)	9.33 WM	9.33 WM
38	Egelston Road	20.16 MS	10.33 WM
42	Auriesville Road	15.7	13.8
	(Montgomery County Scenic Byway)	M	M
44	Ingersoll Road	15.8	8.5
	(Montgomery County Scenic Byway)	M	W
45	Van Epps Road & Ingersoll Road	18.2	17.5
	(Montgomery County Scenic Byway	MS	M
58	Boshart Road	4.5 VW/W	4.33 VW
61	NY5, Rest Stop Overlook (Revolutionary Trail	6.7	6.5
	Scenic Byway and Mohawk Area #3 Marker)	W	W
68	Ingersoll Road	19.3	4.8
	(Montgomery County Scenic Byway)	MS	W
69	Ingersoll Road	18.33	17.33
	(Montgomery County Scenic Byway)	MS	M
80	Mill Point Road (Glen Reformed Church and	11	10.2
	Glen Historic District)	WM	WM
93	NY5 (Revolutionary Trail Scenic Byway)	5.16 W	1.16 VW
94	Saint Kateri National Shrine and Historic Site	8.2 W	7.8 W
98	Van Epps Road	2	2
	(Montgomery County Scenic Byway)	VW	VW

VW-very weak, W=weak, WM= weakly moderate, M=moderate, MS=moderately strong, S=strong



10.3.5 Summary

Overall, no VPs were rated to have strong visual contrast, viewer sensitivity, or scenic quality. As indicated in the results of Table 12-B, a majority of the simulated viewpoint locations received a reduction in visual contrast with 5-year landscaping. A summary of the visual impact rating results with 5-year landscaping is outlined as follows:

- VP 38 (Egelston Road) saw moderately strong visual contrast ratings diminish to weakly moderate with 5-year landscaping.
- Vantage points (VPs 61 and 93) on the Revolutionary Trail Scenic Byway received average contrast ratings of weak to very weak with 5-year landscaping. These results suggest visibility from the scenic byway is insignificant.
- A subset of viewpoint locations received a minor reduction in visual contrast with 5-year landscaping. VPs 58 (Boshart Road), 61 (Rest Stop Overlook/Revolutionary Trail Scenic Byway), and 94 (Saint Kateri National Shrine and Historic Site) located in Distance Zone 2 obtained a 0.18 to 0.4 reduction in contrast with 5-year landscaping, which is a relatively small value; however, these locations contain an overall contrast rating ranging from weak to very weak, meaning very little visual impact.
- VP 98 from Van Epps Road (Montgomery County Scenic Byway) did not receive any diminishment in visual contrast with the incorporation of 5-year landscaping, although this location contains insignificant impact as indicated by overall contrast rating of very weak. VPs 31 and 80 (Glen Historic District) obtained minimal to no improvements in visual contrast with the introduction of 5-year landscaping; however, both VP's contrast rating remained less in value (weakly-moderate). While the contrast ratings were less, viewer sensitivity was rated to be moderate. The occurrence of visual contrast at VPs 44 and 68 on Ingersoll Road (Montgomery County Scenic Byway) experienced a diminishment from average ratings of moderate/moderately strong impacts to only weak impacts with the inclusion of 5-year landscaping. VPs 45 and 69, also from Ingersoll Road, received an average contrast rating of moderate; however, the scenic quality ratings for each view were found to be weak.
- VP 42 saw a minor improvement in visual contrast (-1.9) with 5-year landscaping, however, the rating persisted as moderate. Scenic quality and viewer sensitivity values were rated as moderate, which suggest that moderate visual change is present on a segment of Auriesville road, subsequent of 5-year landscaping. Viewers will likely be sensitive to this change due to the modest scenic quality rating.



11.0 VISUAL IMPACT MINIMIZATION AND MITIGATION PLAN

19 NYCRRR Section 900-2.9 (d) requires a VIMMP that includes proposed minimization and mitigation alternatives to avoid and minimize visual impacts to the maximum extent practicable. Appropriate and practicable measures to reduce visibility of solar development include mitigatory practices such as screening (landscaping), architectural design, visual offsets, relocation or rearranging Facility components, the reduction of component profiles, alternative technologies, facility color, and design lighting options for work areas and safety requirements. Please refer to Revised Attachment 6 to review the full VIMMP.

11.1 Siting and Design

Minimization and mitigation associated with siting and design are summarized as follows:

- The Facility design avoids clearing of vegetation to the maximum extent practicable by utilizing open agricultural land for siting Facility components.
- Where available, Facility components are sited behind existing perimeter vegetation. At locations where existing vegetation is not available, such as in open agricultural fields, the Applicant has proposed a robust landscaping plan for a screening effect. This use of vegetation reduces visual contrast, as color contrasts can be visually absorbed and mitigated by vegetation. The proposed landscaping plan utilizes different planting modules based on the targeted setting and the proximity of sensitive receptors. In the proposed planting modules, native species and planting arrangements are used to mimic the character of regional roadside vegetation and hedgerows. This conceptual planting plan was developed as a site-specific solution appropriate to the scale of the Facility and visual character of the existing landscape.
- Not only were Facility components sited away from sensitive, agency-recognized and listed visual receptors to the greatest extent practicable, the Applicant also sited the Facility or select components away from non-listed stakeholder-requested resources and non-participating residences. In some instances, the Facility was designed to specifically avoid certain receptors, such as the Hamlet of Glen and the Glen Village Cemetery.
- The Facility has been sited away from larger population centers to minimize potential visibility by a relatively larger number of viewers.
- Collection lines were designed underground to decrease additional aboveground Facility visibility. By placing collection lines underground instead of aboveground, continuity and the usability of land delegated only for collection outside of the Facility fence line is preserved.
- Inverters were sited towards the center of solar arrays to obscure views and maximize viewer distance.
- The Facility has been designed to conform with the minimum property and building setback distance in accordance with Section 900-2.6(d) of the Section 94-c regulations (see Revised Exhibit 5 for more detail). The Applicant applied minimum setbacks of 250



feet from non-participating occupied residences, 100 feet from non-participating residential property lines, and 50 feet from the center line of public roads and non-residential, non-participating property lines.

- The substation, POI switchyard, and transmission structures were sited adjacent to existing transmission right-of-way for immediate interconnection to the electrical grid. This siting strategy minimized visual impacts by avoiding electrical overhead structures at new locations.
- The substation, POI switchyard, and transmission structures were sited adjacent to existing forest to provide natural screening.
- The Applicant proposes solar panels containing an antireflective coating. PV panels are
 designed to absorb light and minimize reflected light and glare. According to the Revised
 Glare Analysis (see Section 11.9 as well as Revised Plan 6C of Revised Attachment 6),
 the Applicant sited the Facility to avoid potential glare. In addition, the proposed
 landscaping plan around the perimeter mitigates glare, if any were to be produced.
- Racking systems consist of non-reflective metallic materials.
- During normal operations, most of the Facility will not be lit during nighttime hours. Within the onsite substation, manually-operated lighting will be provided in compliance with the National Electrical Safety Code. It will not be activated except during nighttime Operations and Maintenance (O&M) activities or in the case of an emergency response. Onsite O&M work activities will generally be limited to daylight hours. In the rare cases when nighttime O&M work is required, work lights will be limited to only those small work areas and will be directed downward and away from offsite receptors, to minimize light trespass and offsite spillage. Temporary work area lighting will be shut down at night, unless required for security purposes. Specifications for lighting are presented in Revised Attachment 6.
- Sound walls are proposed as part of the Facility to decrease impacts from noise on nearby receptors. The sound barrier walls will be Durisol Precast Noise Barrier and will be "Plain Flat" in the color of 1004B Natural (see Revised Exhibit 5, Appendix 5-4 for a specification sheet). A total of 37 sound barrier walls have been designed around inverters and one around the substation. The sound walls will range from 12 feet in height to 15 feet in height with the majority (32) being 12 feet in height (see Revised Exhibit 5, Appendix 5-1 for details on height and location of sound walls for the Facility.

11.2 Downsizing and Low Profile

The size and profile of the Facility in terms of dimensions is necessary to achieve the Facility's purpose and MW capacity. However, throughout the Project's iterative design process, reductions in Facility acreage occurred to address environmental constraints, avoid sensitive resources, and for compliance with local laws to the maximum extent practicable. This minimized the overall Facility footprint to the maximum extent practicable while still achieving the required MW capacity of the Project. Panels are anticipated to have a maximum height of 10 feet from finished grade, inclusive of the racking system which is low-profile as compared to the typical existing vegetation and structures. The Facility design employs tracker and bi-facial panel technology. The maximum



height of a tracker system is sustained for only a short period during daylight hours as the trackers make continuous angle adjustments to follow the sun. For example, tracker systems lay flat near midday when the sun is directly overhead resulting in a panel height considerably lower than the maximum height. If needed, tracker systems allow for the ability to directly program and adjust panel tilt in select areas at certain times of day to mitigate glare, if necessary.

11.3 Alternate Technologies

Alternate technologies generally do not exist that would substantially reduce the visibility and visual impact of the proposed Facility. However, a newer technology that solar facilities are using more frequently, including the Mill Point Solar I Project, are bifacial solar panels. Bifacial solar panels allow for light absorption on both sides, resulting in higher power generation. By employing bifacial technology, the Applicant is able to minimize the overall Facility footprint and still meet the required MW capacity. The Facility also proposes single axis trackers in lieu of fixed-tilt panels contributing to a lower height profile and reduction in potential glare.

11.4 Facility Color

The color (gray) and form of the individual parts that collectively comprise the racking system and substation cannot easily be modified as specifications and materials are provisioned per manufacturing standards by the manufacturer (fabricated by mass production, either by automation or assembly lines).

The solar panel technology proposed for the Facility are manufactured with polycrystalline, which is natively blue in its natural state and is best suited to reflect the least possible light. Since solar panels are manufactured to absorb light and minimize reflected light, they therefore produce minimal, if any, glare. Results of the Revised Glare Analysis (Revised Plan 6C of Revised Attachment 6) conclude that there is no potential for glare from the Facility. Additionally, the Facility will use antireflective coatings on solar panels.

Due to results of the noise study (Exhibit 7 and Appendix 7-10), sound walls are proposed around select inverters and the substation. Careful selection of placement, design, and color was applied to reduce potential visual impacts by employing a camouflage effect (see Section 11.1, above). The sound barrier walls will be Durisol Precast Noise Barrier and will be "Plain Flat" in the color of 1004B Natural (see Revised Exhibit 5, Appendix 5-4 for a specification sheet).

A 15-foot-tall operations and maintenance building is proposed along the substation's southern fence perimeter. The O&M facility exterior consists of three windows, two exterior doors, and one garage. The building's façade will utilize corrugated metal and be white or ANSI grey in color. Final material type and finish color details will be updated during detailed design. The O&M plan and sections are obtainable in Revised Attachment 6.

11.5 Relocation and Rearranging Facility Components

The Applicant performed multiple iterations of Facility design due to constraints including, but not limited to, shifts in land control, Federal, State, and local regulations such as setback



requirements, local zoning, sensitive resources (wetland, cultural, nearby receptors, etc.), noise and visual impacts, community feedback, and stormwater design.

11.6 Advertisements, Conspicuous Lettering, or Logos

Other than warning and safety signs, no advertisements, conspicuous lettering, or logos will be permitted on Facility components.

11.7 Buried Electrical Collection System

As described above, the collection system is proposed underground by either trenching or horizontal directional drilling (HDD).

11.8 Transmission Lines

Transmission structures facilitating the POI shall have a non-glare finish. Use of a dark brown or green weathered steel transmission and collection structures shall be considered in the development of final engineered design. The Facility gen-tie line is sited above ground on monopole transmission structures. Siting the gen-tie above ground allows for improved heat transfer of the conductor cables, allowing for smaller cables to be used. Additionally, underground high voltage lines require concrete joint vaults at every cable joint, as well as cement stabilized sand and concrete covers along the length of the cable to ensure the safety, thermal insulation, and electrical isolation of the cable. Underground lines require much more space between each phase cable because air is a much better insulator than cable sleeves and sand wetlands. The result of wider spacing is significantly more ground and wetland disturbance in the wider right of way for the gen-tie. In a January 2015 analysis, National Grid estimated that as much as 14 times more excavation is required for an underground line compared to an overhead line (page 8). More excavating, specialized cables, concrete jackets, and more make undergrounding a high voltage line several times more expensive than an overhead line (National Grid, 2015).

11.9 Non-Specular Conductors

Non-specular conductors shall be used for the transmission line, electric collection system, as well as the electrical substation equipment to reduce light reflectance.

11.10 Glare for Solar Facilities

A Revised Glare Analysis was prepared by Capital Airspace Group to identify any potential glint and glare impacts on nearby residences and roadways (included as Revised Plan 6C in Revised Attachment 6). This analysis was prepared using ForgeSolar's GlareGauge software. This technology is based on the Solar Glare Hazard Analysis Tool (SGHAT) developed by the Federal Aviation Administration (FAA) in cooperation with the Department of Energy (DOE) and was enhanced for glint and glare assessments outside of the aviation industry.

The SGHAT analyzes the potential for glare over the entire calendar year from when the sun rises above the horizon until the sun sets below the horizon. The magnitude of glint and glare depends on several factors such as the sun's position, the location of the observer, and characteristics of



the PV array including location, orientation, tilt, and optical properties (coatings) of the modules. Glare visibility from an observer's location is analyzed once array characteristics described above are determined. Ocular hazard potential is estimated based on the retinal irradiance and subtended angle (size/distance) of the predicted glare (Ho 2011). Potential ocular hazards range from temporary after-image to retinal burn depending on the retinal irradiance and subtended angle. The SGHAT classifies solar glare into three distinct categories, denoted as "green," "yellow," or "red" glare.

- Green Glare is the mildest of the classifications and has low potential to cause after-image and no potential to cause retinal burn.
- Yellow Glare is a moderate level of glare and has some potential for temporary after-image and no potential to cause retinal burn.
- Red Glare is a serious and significant form of glare with potential to cause retinal burn and/or permanent eye damage.

The Revised Glare Analysis evaluated the Fulton County Airport, 16 adjacent roadways, and 312 residential dwellings within the vicinity to the Facility. There are no predicted glare occurrences for nearby residences or roadways as a result of the proposed single axis tracking arrays. There are also no predicted glare occurrences for the Fulton County Airport approaches.

11.11 Planting Plan

Vegetative mitigation, or screening, is generally an effective mitigatory option for reducing visual change. Solar arrays are often low-profile in height and have the propensity to be visually absorbed or screened by vegetative screening. Therefore, the proposed vegetative landscaping will minimize visual impacts in conformance with 19 NYCRRR Section 900.2.9 (d). The Applicant is proposing a robust, detailed landscaping plan. Seasonality of vegetation, maturation of plantings, and availability of existing vegetation may improve the effects of screening. Seasonality coincides with leaf-on or leaf-off conditions of the vegetation, hence planting modules incorporate evergreens to minimize year-round views. Plant species are selected and installed at a specific age and size to foster vitality and adaptability, minimizing occurrence of die-off and replacement. The specific placement of the differing proposed planting modules are prioritized according to adjacent receptors that may experience sensitivity and visual contrast. The entire perimeter of the Facility was evaluated to identify adjacent receptors and study VP observation angles. The length around all perimeter fence lines have been assigned a particular planting module based on the adjacent receptor, area sensitivity, viewshed, and existing vegetation. Areas that contain existing vegetated buffers between the Facility and an observer or receptor may not necessarily require landscaping due to the natural screening effects of existing vegetation. If existing vegetation does not adequately screen the Facility, additional vegetation may be installed. In certain locations, the installation of landscaping may be prohibited such as at utility crossings or at driveway entrances due to safety or accessibility concerns.

The landscape plan was developed to utilize sustainable, hearty, and resilient plantings sourced from local vendors where possible and consists of native evergreen and deciduous tree and shrub species, along with pollinator grasses. To naturalize the appearance of the installed landscaping,



ornamental, pollinator-friendly, and small trees and shrubs have been incorporated into the plan and are placed in front of larger species. An abbreviated version of the landscaping plan can be found as Revised Plan 6A in Revised Attachment 6. The full plan can be obtained in Appendix 5-2 of Revised Exhibit 5 Design Drawings. The following items and concepts were applied to the plan:

- Native/indigenous evergreen trees and pollinator-friendly deciduous shrubs and small
 ornamental tree species were selected for the vegetative buffer. Planted vegetation will
 need to reach a more mature height and width to provide appropriate visual screening
 while also maintaining minimum mature heights that will not shade Facility components,
 reducing power generation. See Table 13 below for an outline of the planting schedule for
 the Landscape Plan.
- Planting modules are proposed along the length of the outside of the perimeter fence of the Facility as noted on the Landscaping Plan. Three different vegetation template types (or modules) are proposed for an approximate total of 91,210 linear feet (approximately 17 miles comprising 2,277 deciduous trees, 4,254 evergreen trees, and 9,240 deciduous shrubs). The proposed planting templates are outlined below:
 - Landscape Module Template Type A Typical Screening: This planting scheme provides a high density of plantings and is the most robust planting module intended for a maximum screening effect. This module is proposed for use for viewshed screening at sensitive receptors and non-participating residences. Approximately 3,283 evergreens trees, 1,001 deciduous trees, and 5,238 deciduous shrubs will comprise the Type A landscape module and will be implemented along 37,285 linear feet of the Facility perimeter, approximately 41% of the overall proposed installed landscaping length. Please refer to Revised Attachment 6 Revised Plan 6A for an illustrative representation of this planting template.
 - Landscape Module Template Type B Supplemental Screening: This planting scheme provides a medium density of plantings proposed for use mostly along roads that traverse the Facility or as a buffer for viewsheds that do not contain a sensitive receptor or an adjacent resident. A total of approximately 971 evergreens trees, 1,276 deciduous trees, and 4,002 deciduous shrubs will comprise the Type B landscape module and will be implemented along 24,860 linear feet of the Facility perimeter, approximately 27% of the overall proposed installed landscaping length. See Revised Attachment 6 Revised Plan 6A for an illustrative representation of this planting template.
 - Landscape Module Template Type C Naturalized Area Screening: This planting scheme consists of a naturalized screening effort with an emphasis on installing native and pollinator-friendly grasses for wildlife, pollinators, and songbirds. This planting scheme is proposed for use in areas along the Facility perimeter that do not contain a non-participating resident, sensitive receptor, or road. After desktop analysis and field verification, locations where this planting module is proposed



contain no existing adjacent receptors where visual change could occur. This naturalized planting module will not be mowed so that over time, through the environmental succession process, taller woody species will occupy the area providing a vegetative buffer. Naturalized areas, however, are still subject to limited maintenance activities. This naturalized planting template will be implemented along approximately 29,065 linear feet of the Facility perimeter, approximately 32% of the overall installed landscaping length. See Revised Attachment 6 Revised Plan 6A for an illustrative representation of this planting template.

The proposed plantings will sustain various growth rates (depending on the specific tree or shrub species) and are expected to realize additional growth heights between 7 to 13 feet in approximately 5 years after installation. Growth rates of plantings may continue unless a given plant has reached maturity. Table 13 provides the details regarding species installation height, projected 5-year average height, and mature height potential.

Table 13. Plant Species Heights and Growth Rates of Proposed Landscape Plan

Plant Species Common Name (Scientific Name)	Install Height Post Construction	Projected 5-Year Height Average Post Construction*	Mature Height		
Deciduous and Evergreen Trees					
Downy Shadbush (Amelanchier Arborea)	6 to 8 Feet Clump	12 Feet	15 to 20 Feet		
Balsam Fir (<i>Abies Balsamea</i>)	5 to 6 Feet	11 Feet	40 to 60 Feet		
Flowering Dogwood (Cornius Florida)	1-Inch Caliber Minimum	13 Feet	15 to 25 Feet		
White Spruce (<i>Picea Glauca</i>)	5 to 6 Feet	11 Feet	40 to 60 Feet		
Northern White Cedar (<i>Thuja</i> Occidentalis)	5 to 6 Feet	11 Feet	40 to 50 Feet		
Shrubs					
Red Chokeberry (Aronia Arbutifolia)	24 to 30 Inch	7 Feet	7 to 10 Feet		
Red Twig Dogwood (Cornus Sericea)	24 to 30 Inch	7 Feet	7 to 9 Feet		
Common Witch Hazel (<i>Hamamelis Virginiana</i>)	3 to 4 Feet	11 Feet	15 to 25 Feet		
Common Winterberry (Ilex Verticillata)	24 to 30 Inch	7 Feet	10 to 12 Feet		
Highbush Blueberry (Vaccinium Corymbosum)	24 to 30 Inch	8 Feet	6 to 12 Feet		
American Cranberry (Viburnum Trilobal)	24 to 30 Inch	9 Feet	8 to 10 Feet		

^{*}Source: https://www.arborday.org/trees/

It is important to note that an annual O&M effort will be provided to ensure that proper care and attention is given to the proposed plantings once installed. Annual O&M efforts will include, but



are not limited to, selective pruning, mowing, and monitoring of invasive species. Additionally, notes in the Landscaping Plan (Revised Appendix 5-2 of Revised Exhibit 5; see Abbreviated Landscaping Plan in Revised Attachment 6, Revised Plan 6A) provide further direction, recommendations, insight, and guidelines to ensure healthy, viable, and sustainable plantings throughout the life of the Facility.

11.12 Visual Offsets

Compensatory visual offsets are usually used in unique and special circumstances as defined in The New York Department of Environmental Conservation 2019 Assessing and Mitigating Visual and Aesthetic Impacts (Visual Policy). This advisory policy describes that offsets should be employed where significant adverse impacts from a project are unavoidable, or mitigation of other types would be economically infeasible, or mitigation is only partially effective. However, the Visual Policy further states that visual offsets should be considered as a last option when all mitigation, or avoidance strategies have been exhausted to mitigate adverse visual impact from important sensitive locations.

The Applicant has implemented a number of avoidance, mitigation, and minimization measures documented throughout the VIMMP (Revised Attachment 6) and Section 11.0. The most distinguishable form of mitigation is vegetative landscaping. Approximately 91,210 linear feet of proposed landscaping has been designed around the Facility to screen, minimize, and mitigate views from the most predicted areas of visibility and sensitivity. Proposed landscaping is also accompanied by the additional effort of preserving existing vegetation to the maximum extent possible for natural screening effects. Other forms of mitigation include siting the Facility in a manner that limits the extents of vegetative clearing, siting the Facility away from population centers and sensitive receptors, proposing underground collection, and siting the POI and substation components adjacent to existing transmission infrastructure. Visual contrast reduction strategies, such as setback distances to the Facility, have been implemented to decrease the visual scale of the Facility from non-participating landowners and public roadways to the maximum extent practicable.

Consequentially, because the Visual Policy emphasizes that all appropriate onsite measures should be employed before the use of an offset is considered, no compensatory visual offsets (i.e., removal of an existing abandoned structure in disrepair to compensate for impacts) is being used. As described within the VIMMP and VIA, the Applicant has used appropriate onsite measures to avoid, mitigate, and minimize visibility of the Facility.

11.13 Lighting Plan

The Substation and POI Switchyard Plan & Profile Drawings and Lighting Plan (see Revised Plan 6B of Revised Attachment 6) illustrates the proposed locations and positions of light fixtures, which are only intended for security, safety, and maintenance purposes. For the Facility, light fixtures are proposed within the substation and POI switchyard. The Lighting Plan was developed to minimize light creep and runaway light while meeting lighting standards established by the National Electrical Safety Code (NESC). The proposed plan also complies with Occupational



Safety and Health Administration (OSHA) requirements as proper illumination will be provided for all working spaces around the electrical equipment. All of which has been designed so that control points or persons making repairs will not be endangered by electrical hazards or other equipment.

Lighting has been designed to provide an average of at least 2 foot-candles to eliminate unnecessary light trespass beyond the POI and substation. Light fixtures will be mounted at the lowest practical height of 30 feet, will be directed downward to ground-work areas with light fixture tilt angles of 75° and 0°, respectively, and will not be illuminated during unoccupied periods. Full cut-off fixtures and task lighting will be used wherever feasible, as specified in the Lighting Plan. One candela is equivalent to one lit candle. A minimal 0.25 candela occurs at the extents of the light sources. The lighting plan addresses the following, as applicable:

- Manual on/off and auto activated lighting controls with full cut-off capability will be installed and available at the POI and substation to aid site security. Lights are located on such structures as the static masts. Two full cut-off lights will also be mounted above each of the control building's entrance. Substation drawings (available in Revised Plan 6B in Revised Attachment 6) depict the light fixture locations, associated heights, and manufacturer specifications. Lights will be oriented downward to minimize potential impacts to surrounding receptors. Plan and profile figures demonstrate the lighting area needs and proposed lighting arrangement and illumination levels to sufficiently provide safe working conditions at the substation and POI switchyard site.
- Should task lighting be implemented during the occurrence of nighttime maintenance, lights will be directed to the ground and/or work areas to confine the total maximum nighttime lighting output. Temporary work area lighting will be shut down at night, unless required for security purposes.



12.0 VISIBILITY DURING CONSTRUCTION

Potential visibility of construction activities is temporary in nature and involves the following major undertakings: building/upgrading/repairing access roads (as applicable), constructing laydown areas, removing necessary vegetation from areas of construction, delivering components, materials, and equipment, installing solar arrays, constructing other Facility components (e.g., retention basins, substation, overhead transmission facilities, fences), and installing underground collection lines. During construction, there will be an increase in vehicular traffic, equipment, and workers seen within the Facility Site and the immediate surrounding area. Construction may result in the temporary increase of dust, however, dust control measures are proposed as referenced in the guidelines provisioned in the Civil Notes of General Environmental Restrictions; please review Revised Appendix 5-1 of Revised Exhibit 5, Design Drawings, of the Application for more information.

Construction visual contrasts would vary in frequency and duration throughout the course of construction. There may be periods of intense activity followed by periods with less activity and associated visibility would vary in accordance with construction activity levels. The construction phase of the Facility is temporary and is anticipated to last 12 to 18 months. Please refer to Revised Exhibit 16, Effect on Transportation, for details regarding road usage and frequency associated with Facility construction.

The daily construction workforce for the Facility is expected to peak at approximately 225 workers which will generate 225 trips daily trips assuming individual travel accommodations to/from the Facility Site. In addition to construction workforce trips, construction equipment and material delivery associated with constructing the Facility is estimated to comprise a total of 1,425 trips occurring during the first three months and two final months of construction at an anticipated 20 trips per day. Discussion on construction vehicle types, number of trips, and construction activities is outlined in greater detail in Revised Exhibit 16 Effect on Transportation.

Construction activities shall be limited to 7 a.m. to 8 p.m. Monday through Saturday and 8 a.m. to 8 p.m. on Sunday and national holidays, with the exception of construction and delivery activities, which may occur as needed during extended hours.



13.0 CUMULATIVE EFFECTS

A cumulative visual impact analysis is required to be performed per 19 NYCRR Section 900.2.9 (a). Cumulative effects are discussed in this section based on available data related to recent and proposed utility development within the VSA. A map is provided as Revised Figure 6 to depict the approximate locations of each development in relation to the Facility. Aside from the proposed Facility, there are three utility development projects in total within the VSA, two that are recently built and one that is proposed. As mentioned in Section 3.5 and 3.6, these projects are described below and evaluated, as practicable, for cumulative effects in conjunction with the Facility.

Mill Point Solar II Project

The Mill Point Solar II Project is being pursued by ConnectGen Montgomery County LLC. This proposed utility solar energy facility is expected to generate 100 MW of renewable energy within the Town of Glen in Montgomery County, however, land acquisition and lease agreements are ongoing and therefore a proposed design is unavailable.

Several unknowns regarding design and location of a proposed action can profoundly affect where predicted visibility may occur. A cumulative assessment of the Mill Point Solar II Project and the proposed Facility would likely result in a misrepresentation of potential cumulative visibility. Therefore, a cumulative visual impact analysis was not practicable to perform. However, based on the approximate location of the Mill Point Solar II Project (see Revised Figure 6) to the Facility, and the overlay of predicted Facility visibility located within this general area, it is assumed that cumulative visibility may occur, but as mentioned, the exact location of cumulative visibility is unknown and a cumulative assessment of the Mill Point Solar II Project and the proposed Facility would consist of unsubstantiated results.

Van Epps & Mohawk View Community Solar – Eden Renewables

Eden Renewables recently constructed (2022) two adjacent solar facilities consisting of a 10 MW renewable energy project (5 MW per facility) and energy storage system located on the western side of 677 and 709 Van Epps Road in the Town of Glen (see Revised Figure 6). In spatial relationship to the Facility, the existing community solar facilities are adjacent to Van Epps Road and the closest proposed Facility solar array is adjacently west (or behind) the Eden Renewables solar facilities when facing west from Van Epps Road. Field verification confirmed that visibility to the nearest Mill Point Solar I Facility component is limited by the presence of the existing Eden Renewables solar facility. To cumulatively assess the Eden Renewables solar facilities in conjunction with the Mill Point Solar I Facility, a photo-simulation was prepared from Van Epps Road (see VP98 in Revised Attachment 3). The results of the simulation demonstrate that a minor section of the Mill Point Solar I Facility is visible. The character of the Eden Renewables solar facilities subsumes any appearance of the Mill Point Solar I Facility to where viewers would unlikely recognize any visual change.

Transient views from the traveling public of the subject solar facilities will likely occur in delayed succession, depending on the traveler's planned destination or route. For example, travelers heading northbound on Van Epps Road from the intersection of Fisher Road may briefly view the



Mill Point Solar I Facility and then moments later discern the existing Eden Renewables solar facility. Not all roadways in the VSA will experience cumulative and transient views of both solar facilities. According to a plan graphic available on the Van Epps and Mohawk View Community Solar website (Van Epps & Mohawk View — Eden Renewables, 2021), if proposed landscaping is installed (consisting of native trees and shrubs), it would likely supplement a diminishment of both existing and proposed facilities.

Marcy - New Scotland 345 kV Transmission Line

The Marcy – New Scotland 345 kV transmission line spans from the Town of Marcy to the Town of New Scotland. Within the VSA, this existing transmission line traverses through the Towns of Root and Glen. Photographs documenting the characteristics of the existing transmission line are presented in the Facility Photolog as VPs 6, 50, 69, 92, and 93. As described in Section 2.0, the Facility will interconnect into this transmission line. In general, the Facility is sited slightly south of the existing transmission line, however, a few solar array groupings are sited slightly north of the transmission line (see Revised Figure 6). Because of the relatively tall heights of the transmission H-frame structures (approximately 150 to 200 feet) and the close geographic location of the structures in relation to the Facility, cumulative views are expected to occur and are documented in several photo-simulations (VPs 42, 44, 58, 61, 80, 93, and 94; see Revised Attachment 3). As depicted in the simulations, most cumulative visual contrast is noted when vantage points are proximal to the Marcy - New Scotland 345 kV transmission line (identified as H-frame structures within the photographs) and the Facility (see VPs 42 and 93), whereas vantage points within Distance Zone 2 will generally experience less cumulative visual contrast (see VPs 58, 61, and 94). However, variable cumulative visibility is expected within Distance Zone 1. For example, the VP 44 photo-simulation demonstrates that in approximately 5-years post construction during warmer seasons (leaf-on condition), the Facility's proposed landscaping obstructs the majority of the solar arrays and fencing. VP 80 is also within Distance Zone 1 and depicts a partially open view to the Facility and existing transmission line where cumulative visual contrast may be more apparent, but less overall in comparison to VP 42 (which is closer to the existing transmission line). Therefore, it is expected that most cumulative effects will occur when in close vicinity to the Marcy – Scotland 345 kV transmission line and the Facility. However, as demonstrated in the VP 44 simulation, proposed landscaping may interfere with cumulative views of the Facility and Marcy - New Scotland 345 kV transmission line and will reduce visible aspects of the Facility. As mentioned, most cumulative views will occur when in immediate vicinity to both the Facility and Marcy - New Scotland 365 kV transmission line where visual contrast already exists due to the characteristics of the tall transmission structures. Therefore, negative cumulative effects are expected to be relatively minor.

2621 State Highway 5S Solar Project (New Leaf Energy)

New Leaf Energy is proposing a 5 MW community solar facility south of the Hamlet of Auriesville within the Town of Glen (see Revised Figure 6). Viewshed results of the Facility were not predicted to occur near or from the 2621 State Highway 5S Solar Project, therefore, cumulative views will not occur from the Facility and 2621 State Highway 5S Solar Project.



14.0 SUMMARY CONCLUSIONS – VISUAL IMPACTS DURING OPERATION

The information in this VIA provides an understanding of the visual relationship between the proposed Facility and its surrounding context. In-depth compilation of computerized analysis results and corresponding discussion is provided in Section 10. The following provides a summary of findings and impacts related to the Facility.

- 1. The proposed solar arrays will not be visible from the communities of the Village of Fultonville, Stone Ridge, Berryville, Tribes Hill, and the Hamlet of Auriesville. A minor and limited amount of visibility was predicted within the Village of Fonda but is isolated to a small, approximate 300-foot section on Cemetery Road, a small 70-foot gap within Fonda Cemetery (see LOS profile L3 of Revised Attachment 3), and intermittently through two separate agricultural fields, one south of NY5 and one west of Cemetery Road, where viewers are not expected to congregate. Two minor, isolated bands of solar array visibility occur within the Fonda Speedway and Montgomery County Fairgrounds, however, due to viewer activities (large events) and visually distracting elements (e.g., sound, smell, lights, motion, signage, etc.), viewer attention will be primarily focused on the foreground environment as opposed to distant landscape features where a limited portion of the Facility may be discerned. Due to the presence of existing vegetation, topography, and viewing distance to the Facility, limited views of solar arrays from the Village of Fonda will be infrequent, minimal, and will unlikely be perceived by the limited number of users accessing these areas. Less populated communities of Square Barn Corners (13 housing units; see Table 1B) and the Hamlet of Glen (88 housing units; see Table 1B) are expected to discern the solar arrays at variable distances, but not all residents in these communities will have a direct view from their respective properties. Landscape screening is proposed around the solar arrays where existing vegetation is absent and adjacent receptors are present. Within a reasonable time of 5 years, the plantings are projected and anticipated to attain growth height comparable to the solar arrays, thereby greatly reducing visibility of the Facility. Viewshed results of the proposed solar arrays and associated infrastructure conclude that 18.92% of the VSA was predicted as visible, therefore, 81.08% of the solar arrays will be screened by existing vegetation, topography, and existing development. Within the VSA, 6.69% of the 18.92% of solar array visibility is located on participating landowner properties, therefore, 12.23% of predicted solar panel visibility occurs on non-participating landowner properties. Proposed landscaping within a 5-year timeframe is anticipated to moderately discount the overall percentage of predicted visibility as plantings mature to equivalent heights of the solar arrays, consequentially, in time the Facility will become less discernible than what was predicted in the solar array viewshed analysis (see Revised Figure 4).
- 2. The VSA was partitioned into two distance zones to objectively determine the Facility's visual effect from discrete distances. Distance Zone 1 (0.0 to 0.5 miles from observer to Facility) contains 12.19% of potential solar array visibility, whereas Distance Zone 2 (0.5 to 2 miles) comprises 6.73%. However, a moderate amount of solar array visibility occurs within the Facility Site and participating landowner properties. If deducting these areas from the



percentage of solar array visibility, Distance Zone 1 is reduced to 6.73% and Distance Zone 2 remains at 6.73%. As documented in the photo-simulations and by results of the Facility contrast rating effort (see Table 12B), visible contrast from Distance Zone 2 was found to be weak (see VPs 58, 61, 94).

- 3. LSZ Zone 1 Agricultural is prevalent within the VSA (approximately 54% of VSA) where 17.13% of a total of 18.92% of solar panel visibility is predicted to occur, whereas LSZ Zone 2 Forested comprises approximately 32% of land in the VSA where only 0.61% visibility is predicted. The remaining LSZs Zone 3 Developed (10.4% of land in VSA), Zone 4 Open (1.6% of land in VSA), and Zone 5 River Corridor (2.3% of land in VSA) are smaller contributors to the landscape where 1.17% of visibility was predicted. This data suggests that a very small percentage of predicted visibility (1.17%) occurs in sensitive locations such as developed areas (villages, residential, commercial, etc.), open areas (parks, cemeteries, greenspace, etc.), and rivers (Mohawk River and Schoharie Creek).
- 4. The POI components viewshed determined that 10.24% of potential visibility may occur within the VSA. As shown in Table 10, the concentration of visibility is found within Distance Zone 1 (6.37%), whereas less visibility is identified in Distance Zone 2 (3.87%). Overall, the tallest POI components consist of proposed transmission structures (135 to 200 feet in height), therefore, most visibility is anticipated to be a result of these structures. As shown in several photographs (VPs 6, 50, 69, and 92; see Facility Photolog of Attachment 2) and photosimulations (VPs 42, 44, 58, 61, 80, 93, and 94; see Revised Attachment 3), views to the existing Marcy New Scotland 345 kV transmission line are abundant within the VSA, but the overall appearance of the existing structures generally diminish when in Distance Zone 2. Therefore, it is expected that VPs from Distance Zone 2 to the proposed POI components will result in minimal visual change due to the presence, scale, and visual dominance of the existing Marcy New Scotland 345 kV transmission line, and due to the limited amount of POI components discerned (3.87% in Distance Zone 2).
- 5. As mentioned, POI components visibility within Distance Zone 1 (0.0 to 0.5-miles from observer to Facility) comprises a total of 6.37%. Due to the presence of existing forest vegetation bordering the north and west sides of the POI components, the nearest views are limited to a small section of Ingersoll Road in proximity to the existing Marcy - New Scotland 345 kV transmission line where VPs 68, 69, and 70 were documented. These VPs face the general direction where the POI components may be seen from the road. A limited number of residences are adjacent to these VPs. As shown in the VP 69 photo-simulation with 5-year landscaping, a portion of the POI switchyard is softened by proposed vegetation, however, part of the POI switchyard remains discernible. Therefore, travelers on Ingersoll Road may experience a short glimpse to a portion of the POI switchyard, but viewers will already have an established visual expectation of utility infrastructure when traveling through and/or by the existing Marcy-New Scotland 345 kV transmission line, which is adjacent to the switchyard. While VP 69 illustrates partial screening for travelers, there will not be such limitations along the nearest residential properties to the east where more proposed landscaping is sited closer to these residences to provide more impactful and measurable screening effects to the Facility. Other vantage points on Ingersoll Road (see VP 68 simulation in Revised Attachment



- 3) demonstrate that foreground solar arrays and the proposed landscaping vegetation will interfere and potentially impede some views to the POI components. Vantage points from all other roads within Distance Zone 1 are not expected to view the POI components at full scale because of intervening vegetation, topography, and viewing distance. For example, a majority of the proposed substation components are less than 36 feet in height, which is less than the height of the adjacent existing mature forest. Therefore, many of the POI components will be partially or fully screened by forested vegetation located around Ingersoll Road and throughout Distance Zone 1. At most, it is anticipated that the top sections of substation lightning masts, takeoff structures, and the proposed transmission structures (containing heights of 70 to 200 feet) would be discerned above treetops from other roads within Distance Zone 1, however, the resulting visual contrast would be minor in context to the prominence of the existing Marcy New Scotland 345 kV transmission line.
- 6. 37 out of 133 visual resources (see Tables 4 and 5) received a prediction of visibility consisting of Facility solar arrays and associated infrastructure. The distinction of Facility visibility at a select resource should not be confused with a declaration of visual impact, nor does it immediately constitute profound and adverse visual impact.
 - Local resources anticipated to experience most visual effects of the Facility are confined to sections of Montgomery County Scenic Byways that travel adjacent to the Facility (Van Epps Road, Ingersoll Road, Auriesville Road, and Fisher Road, also classed by the DOT as local roads), however, official state-listed scenic byways and bicycle routes (NYS Bicycle Route 5S, Adirondack Trail and Revolutionary Trail Scenic Byway) contain minimal to no solar array visibility. Visual change that occurs within the limited sections of the Montgomery County Scenic Byway resources is expected to be temporary until suitable time is provided for the proposed landscaping to mature and become effective screening mitigation. As illustrated in photo-simulations (VPs 38, 44, 68, 93, and 98) with landscaping at 5 years (leaf-on) post-construction, the appearance of the Facility is mostly screened by vegetation, although, some vantage points (VPs 42, 45, and 69; Van Epps Road and Ingersoll Road) may still discern a portion of the Facility after a period of 5 years. However, Van Epps Road and Ingersoll Road are classified as local roads. As noted in Table 2, local roads within the VSA support less travelers (AADT of 99 to 527) than highly traversed roadways such as NY5S, which is classed as a Major Collector with an AADT of 3,759 and is predicted to receive a negligible amount of visibility. Consequentially, the number of travelers (viewers) on Montgomery County Scenic Byways will be limited.
 - Not all visual resources within the VSA with predicted solar array visibility will experience an elevated amount of visual change. All photo-simulations have been prepared from notable local, state, and/or federal resources to illustrate the appearance of the Facility. Photo-simulations that depict a lesser amount of visual change at visual resources are noted as VPs 31, 58, 61, 80, 94 and 98. Other simulations prepared from visual resources in proximity to the Facility (VPs 38, 42, 44, 68, and 93) illustrate that in 5 years post-construction, landscaping will provide



beneficial screening to the Facility during warmer seasons when user activity is expected to be the highest.

- As mentioned in Section 6.0, on July 14, 2023, OPRHP determined there will be "no above ground concerns, as the solar array visibility from the Glen Historic District will be limited". The VPs 31 and 80 photo-simulation illustrate a partial and distant view to the Facility from within the Glen Historic District and the visual contrast rating results of the proposed condition with 5-year landscaping indicated a weakly-moderate visual change.
- LOS profiles L1, L2, and L3 were prepared from important state and/or federal resources (NRHP Listed Covenhoven House, New York State Barge Canal Historic District, and NRHP eligible Fonda Cemetery) from within Distance Zone 2 at varying distances to the Facility (ranging from 1.58 to 3.98 miles from observer to Facility). The LOS profiles illustrate that most solar panels along each LOS pathway are obstructed by existing topography and vegetation, and that a very limited section of solar panels would be discernible from distances over 1.58 miles. As shown in the VP 61 photo-simulation (viewing distance of 2.15 miles to the Facility), the Facility is difficult to identify within the landscape and it is expected that the Facility may go unrecognized by most observers.
- 7. Cumulative effects of the Facility and the existing Marcy New Scotland 345 kV transmission line are expected to occur in limited areas within the VSA. As depicted in the photo-simulations within Distance Zone 2 (VPs 58, 61, 93, and 94), cumulative effects are partially discernible by the appearance of proposed solar arrays and existing H-frame structures but are relatively small in contrast to the larger visible landscape. Cumulative visual contrast will likely increase when in immediate vicinity of the Facility and Marcy New Scotland 345 kV transmission line (see VP 69 in Revised Attachment 3), however because of the existing visual contrast associated with the Marcy New Scotland 345 kV transmission line, the addition of the Facility is not anticipated to change the current utility infrastructure characteristics from the limited and proximal views of both existing and proposed structures. Moreover, proposed landscaping is sited around the Facility. In 5 years, the plantings will reach approximate heights of the solar arrays and will likely diminish the cumulative effects.
- 8. Cumulative effects of the proposed Facility and the existing Van Epps and Mohawk View Community Solar facilities are considered visually negligible. As shown in the VP 98 photosimulation from Van Epps Road (see Revised Attachment 3), the Facility is difficult to perceive behind dense forest vegetation. Furthermore, according to a graphic available on the Van Epps and Mohawk View Community Solar website (Van Epps and Mohawk View Eden Renewables, 2021), if installed, the proposed landscaping (consisting of native trees and shrubs) would likely supplement a diminishment of both existing and proposed facilities.
- 9. A professional rating panel was instructed to evaluate visual contrast of the existing condition photograph against the 13 VP simulations of the proposed Facility with landscaping within 0 to 2 years post-construction (see Section 9.0 for the visual impact rating methodology and Section 10.3 for the visual impact rating results). The panelists were then instructed to



evaluate the visual contrast value of the proposed Facility with 5-year landscaping post-construction. The existing condition photographs depict existing vegetation during leaf-off conditions (no foliage); therefore, the rating results do not consider the visual screening effects of existing vegetation during leaf-on conditions that may diminish or preclude views to the Facility. Therefore, the above conditions must be considered when reviewing and interpreting the visual impact rating results. The results of the visual impact rating results with 5-year landscaping are summarized as follows:

- VP 38 (Egelston Road) saw moderately strong visual contrast ratings diminish to weakly moderate with 5-year landscaping.
- Vantage points (VPs 61 and 93) on the Revolutionary Trail Scenic Byway received average contrast ratings of weak to very weak with 5-year landscaping. These results suggest visibility from the scenic byway is insignificant.
- A subset of viewpoint locations received a minor reduction in visual contrast with 5-year landscaping. VPs 58 (Boshart Road), 61 (Rest Stop Overlook/Revolutionary Trail Scenic Byway), and 94 (Saint Kateri National Shrine and Historic Site) located in Distance Zone 2 obtained a 0.18 to 0.4 reduction in contrast with 5-year landscaping, which is a relatively small value; however, these locations contain an overall contrast rating ranging from weak to very weak, meaning very little visual impact.
- VP 98 from Van Epps Road (Montgomery County Scenic Byway) did not receive any diminishment in visual contrast with the incorporation of 5-year landscaping, although this location contains insignificant impact as indicated by overall contrast rating of very weak.
- VPs 31 and 80 (Glen Historic District) obtained minimal to no improvements in visual contrast with the introduction of 5-year landscaping, however, both VP's contrast rating remained less in value (weakly-moderate). While the contrast ratings were less, viewer sensitivity was rated to be moderate.
- The occurrence of visual contrast at VPs 44 and 68 on Ingersoll Road (Montgomery County Scenic Byway) experienced a diminishment from average ratings of moderate/moderately strong impacts to only weak impacts with the inclusion of 5-year landscaping. VPs 45 and 69, also from Ingersoll Road, received an average contrast rating of moderate, however, the scenic quality ratings for each view were found to be weak.
- 10. In 5 years, post-construction of the Facility, the proposed landscape plantings are expected to maturate and greatly reduce the limited amount of predicted solar array visibility (18.92%). Further, the Facility design leverages tracker and bi-facial panel technology for the solar arrays. The maximum height of a tracker system is sustained for only a short period during daylight hours as the racking makes continuous angle adjustments to follow the sun. Therefore, the panels will not sustain a maximum height and will be less visible at certain times.
- 11. The Facility does not have an adverse effect on a known listed scenic vista.



- 12. The Facility does not damage or degrade existing scenic resources.
- 13. The Facility does not create a new source of substantial light that would adversely affect nighttime views in the area.
- 14. The Revised Glare Analysis evaluated the Fulton County Airport, 16 adjacent roadways, and 312 residential dwellings within the vicinity to the Facility. The Revised Glare Analysis found that no residential dwelling, nor roadways are predicted to receive glint or glare. The Fulton County Airport did not receive any glint or glare. Consequentially, no glint and glare impacts occur from the Facility.



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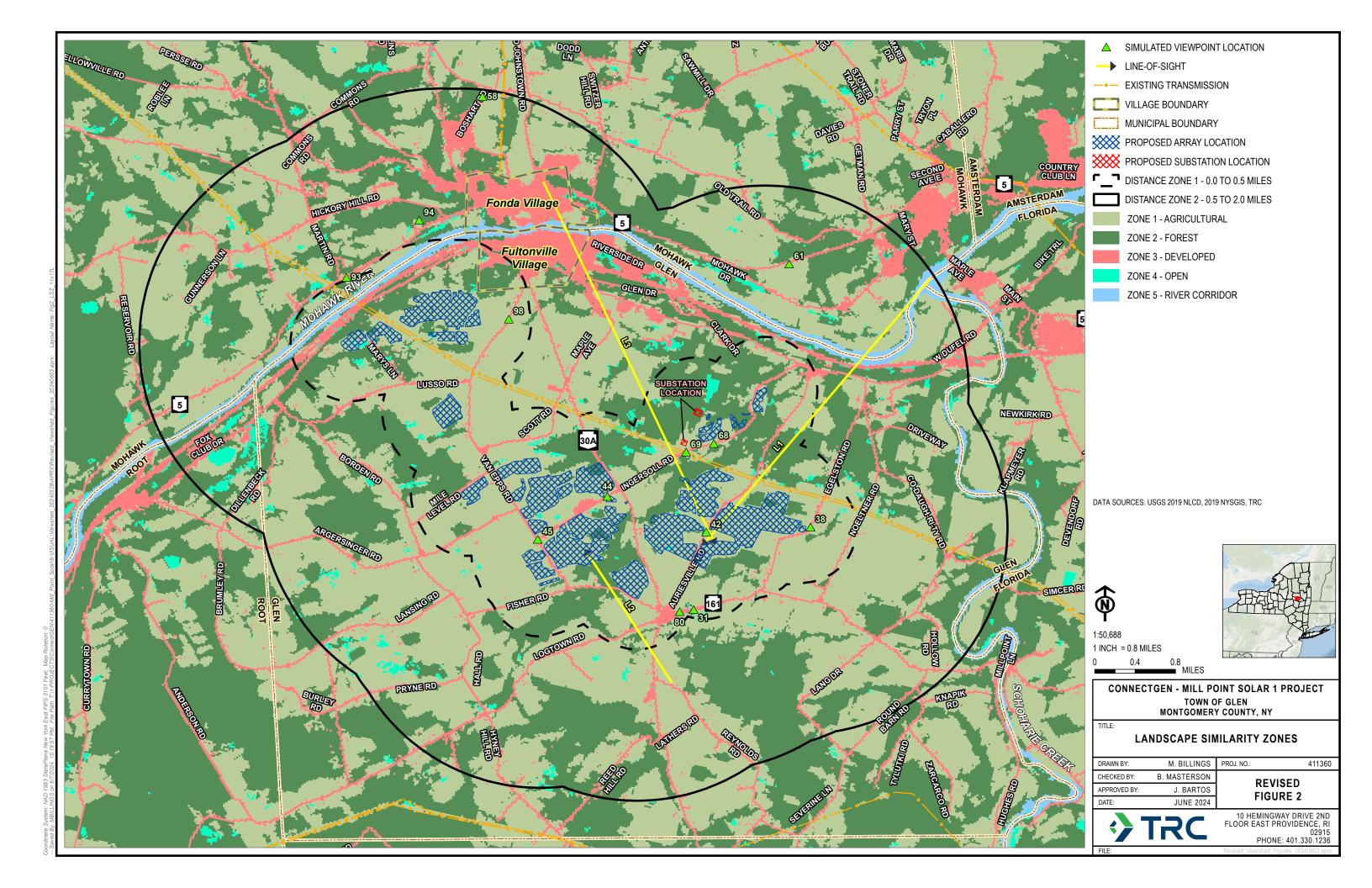
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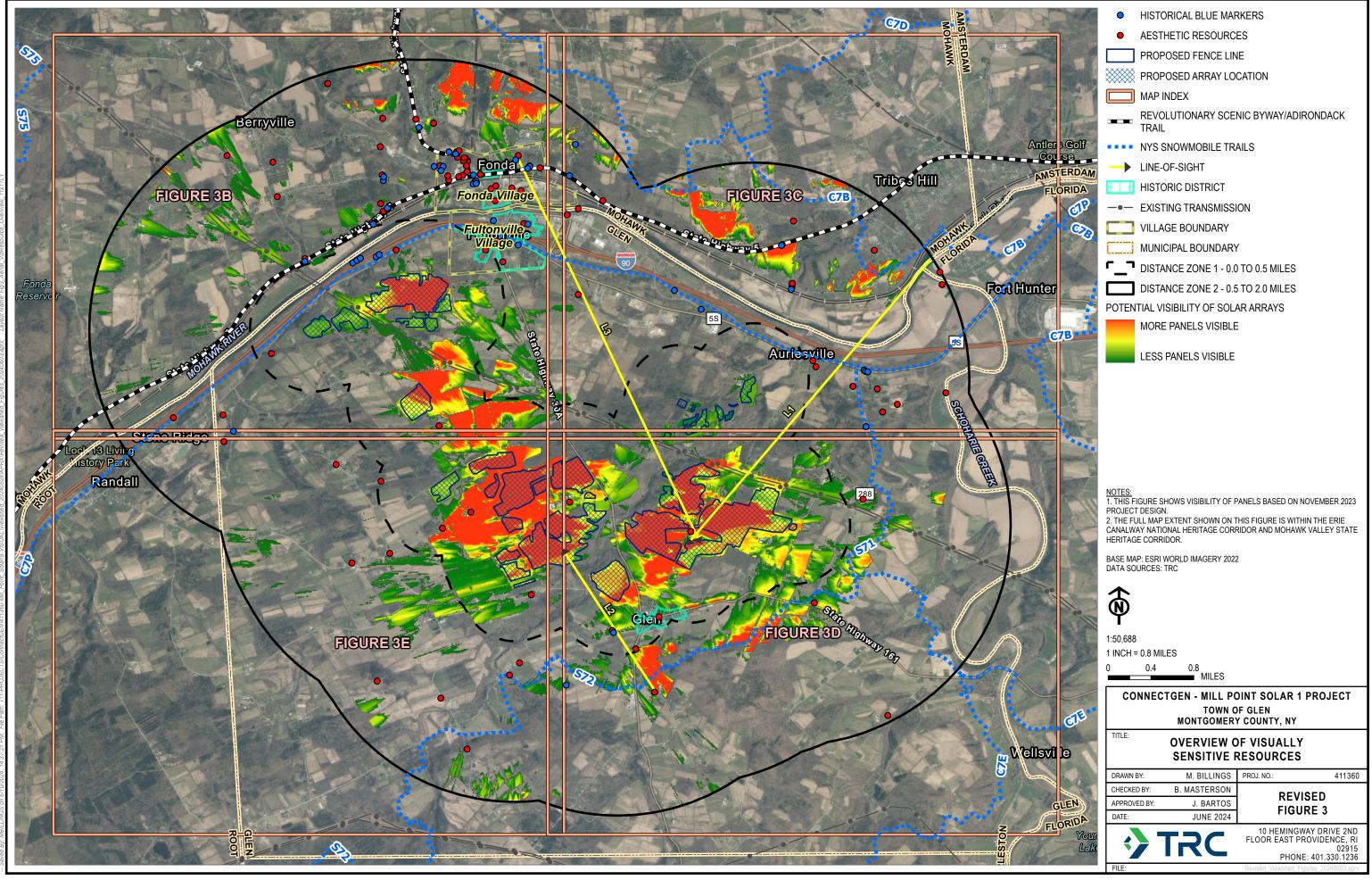


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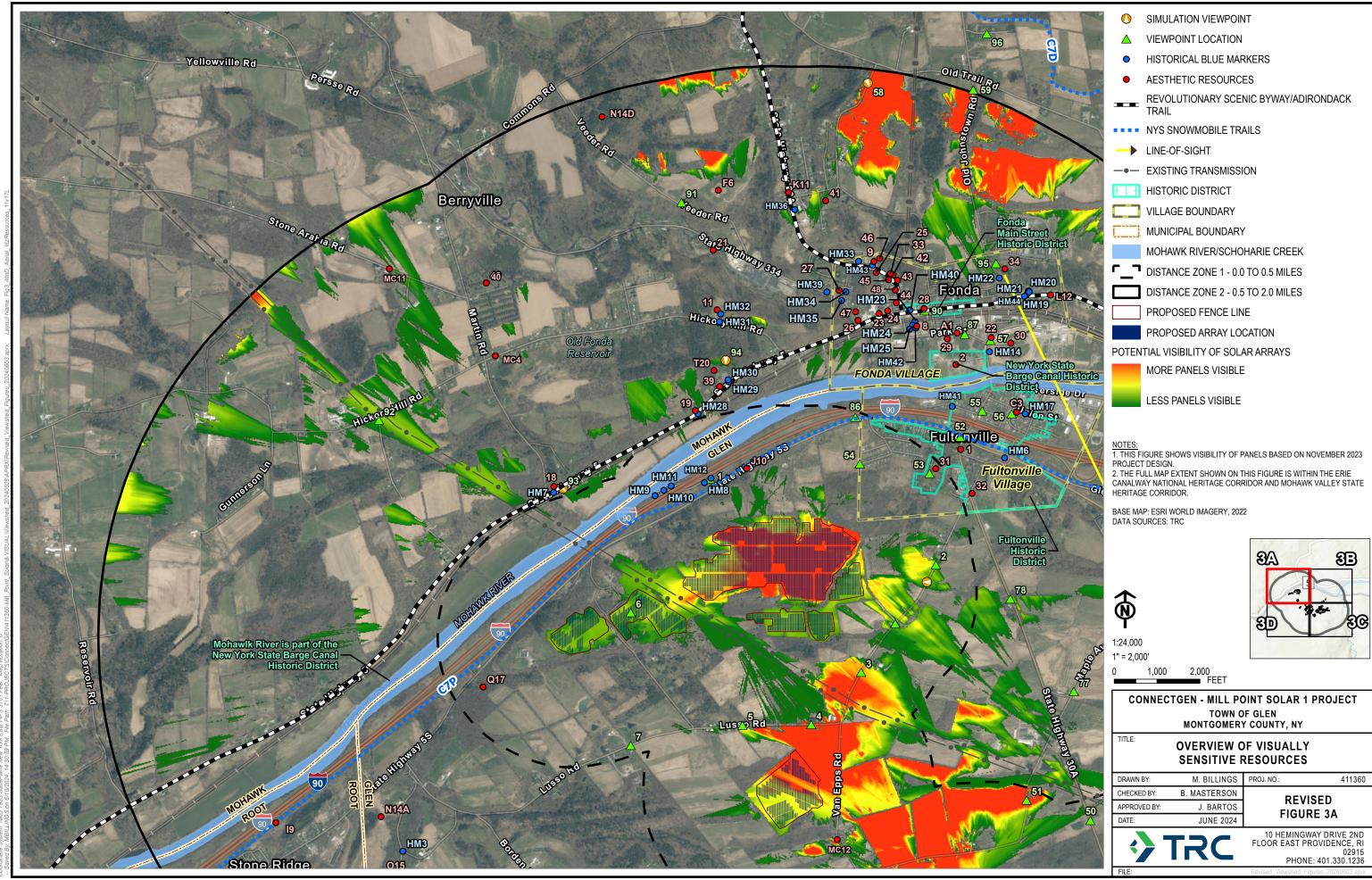
Mill Point Solar I Project Visual Impact Assessment

Figures

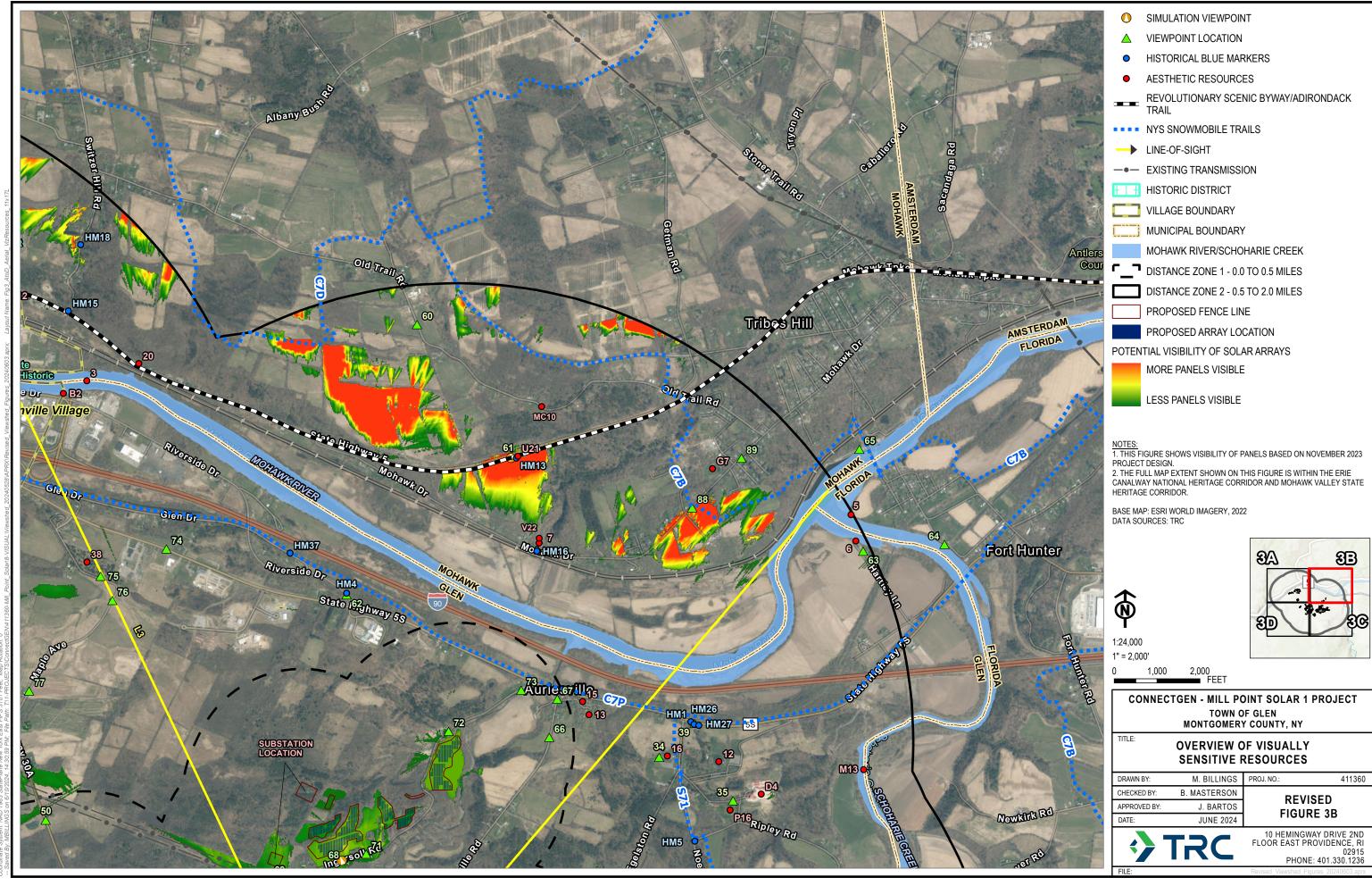


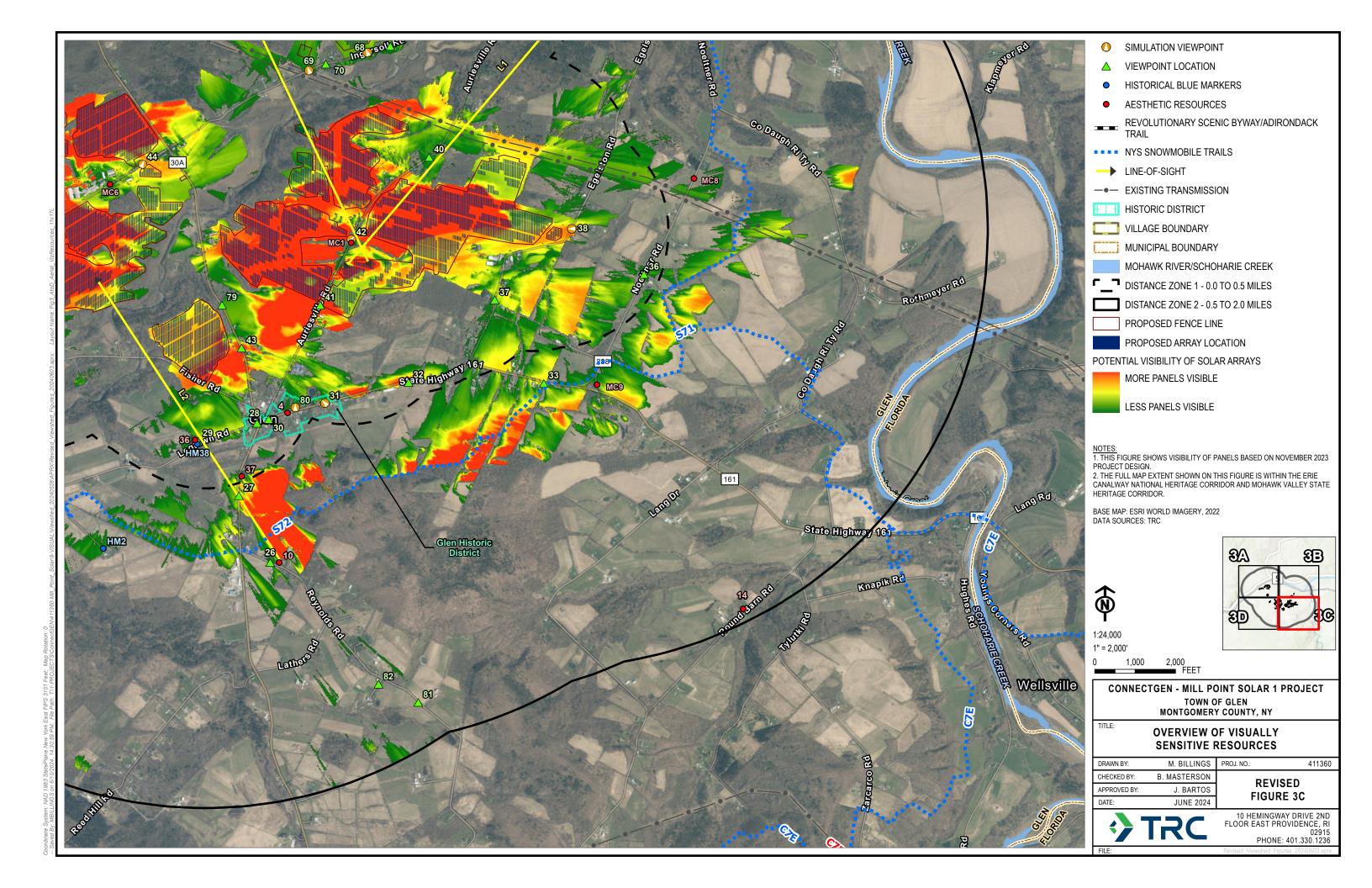


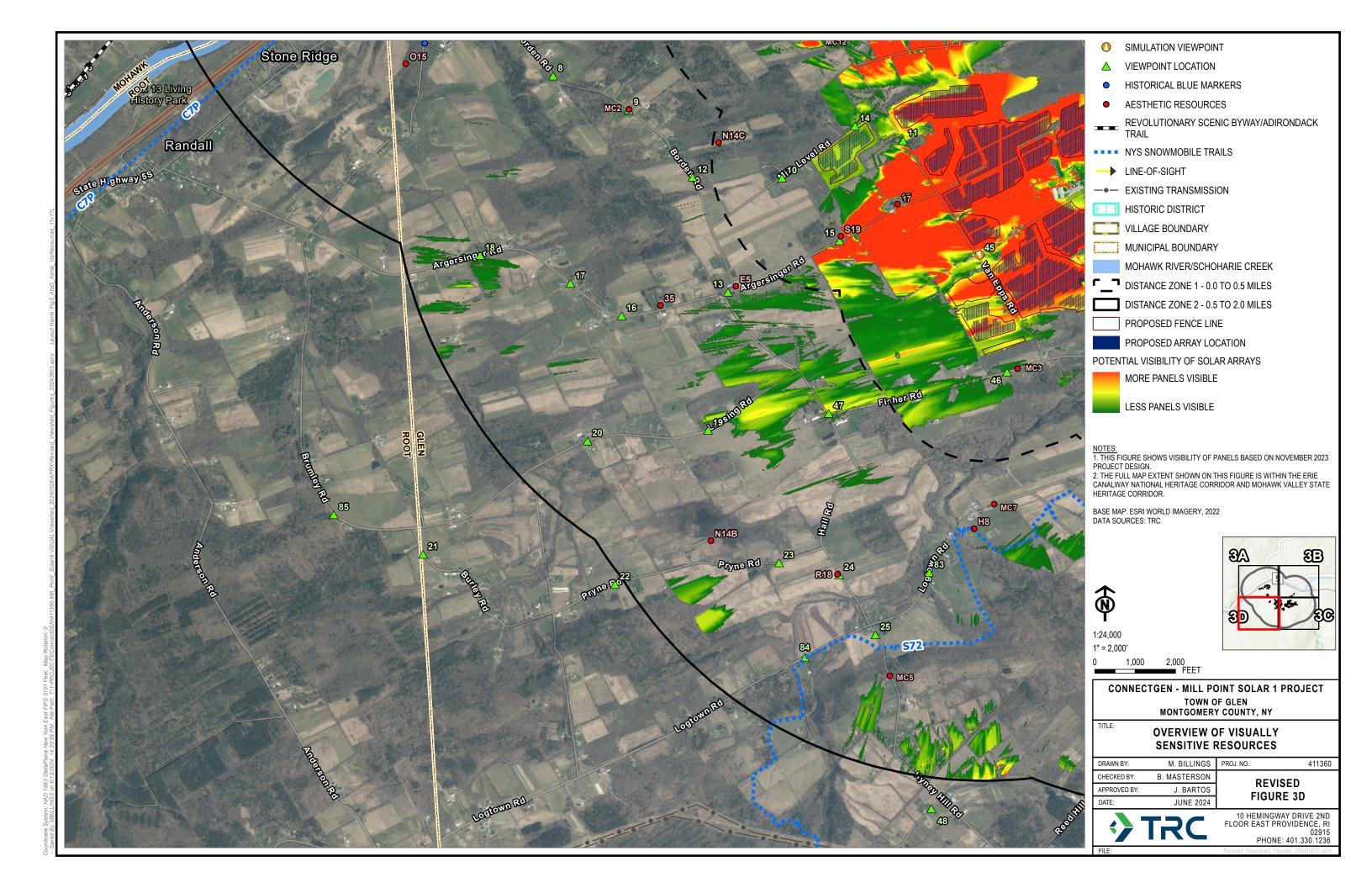
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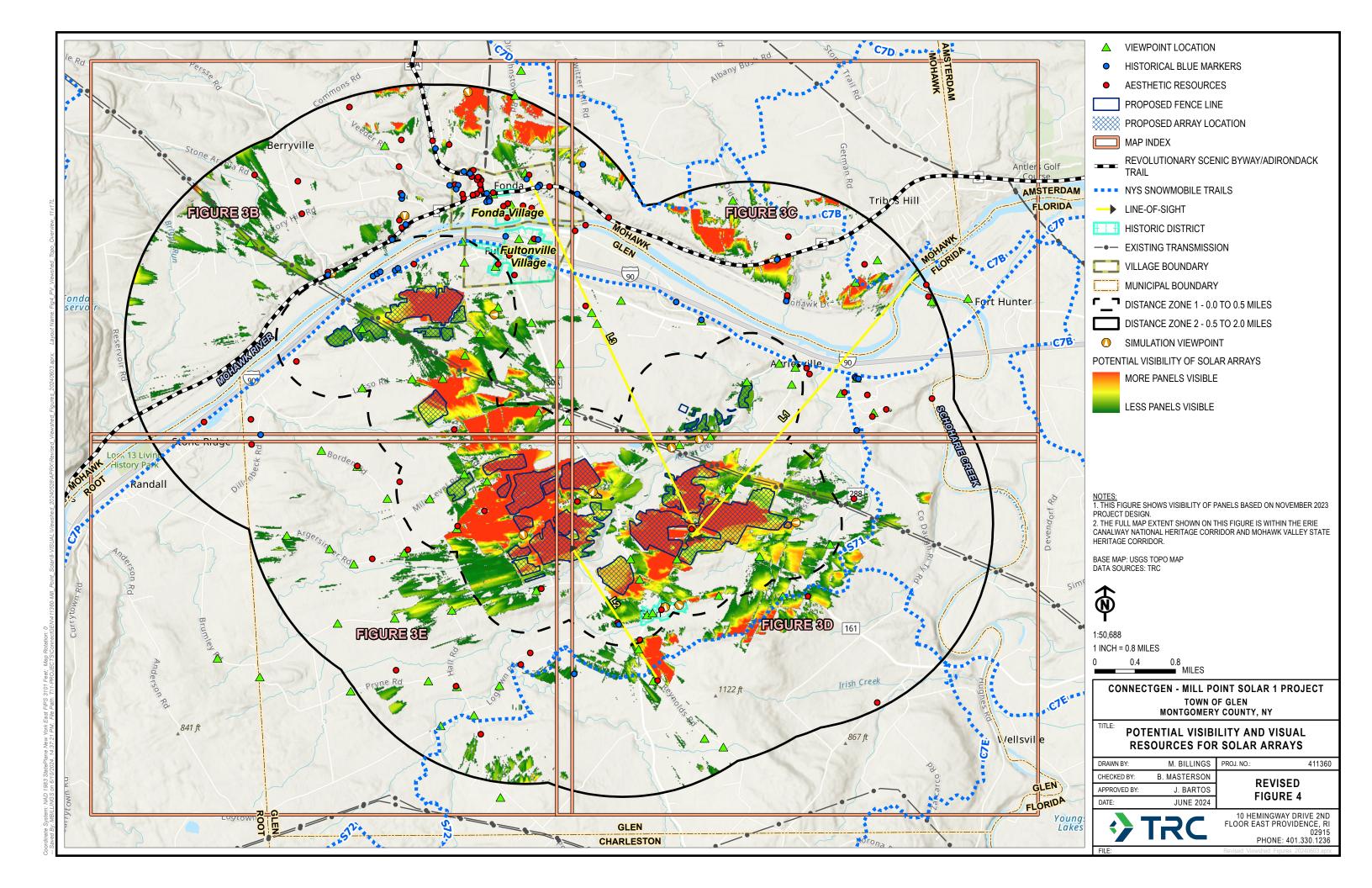


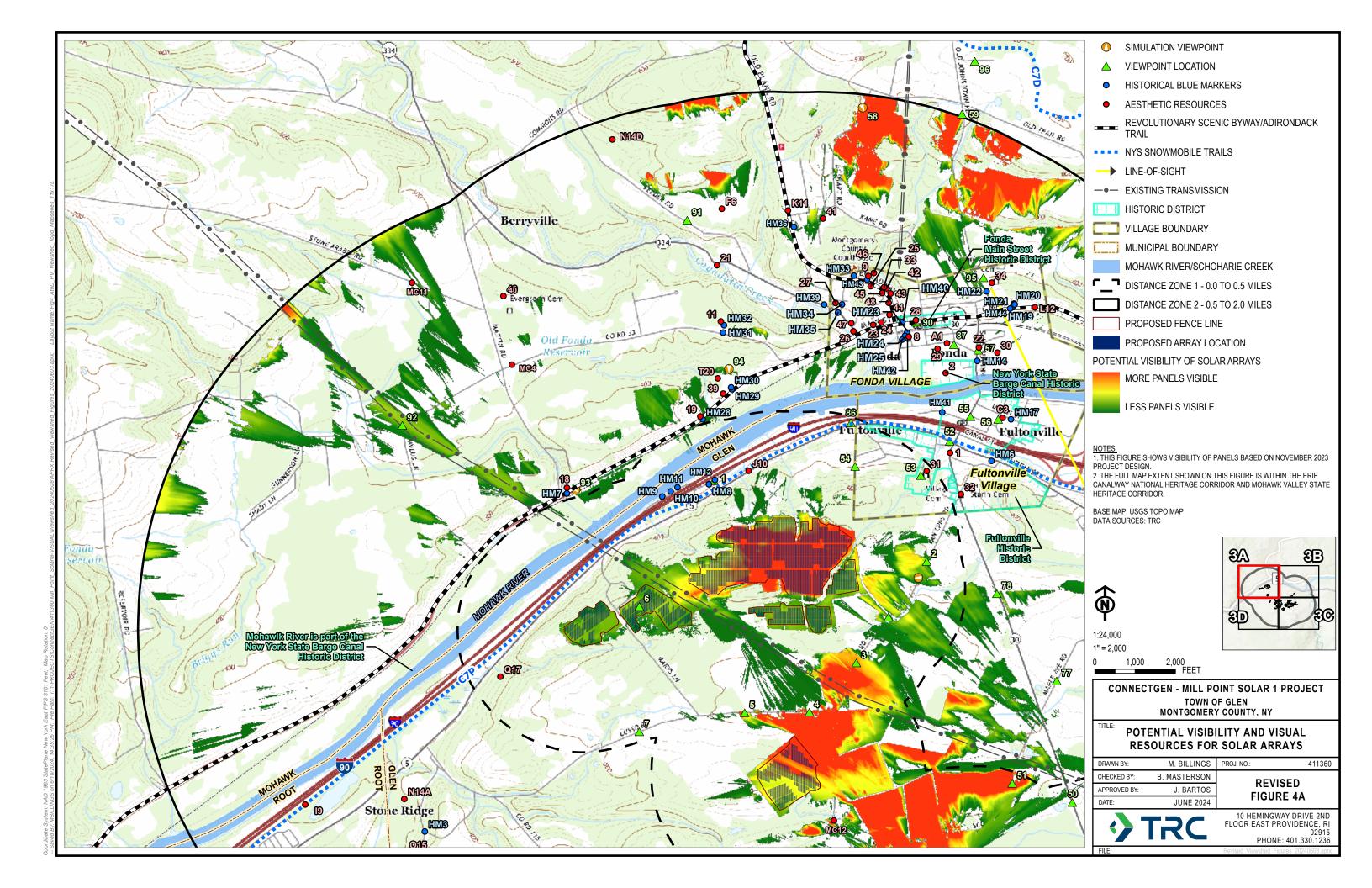
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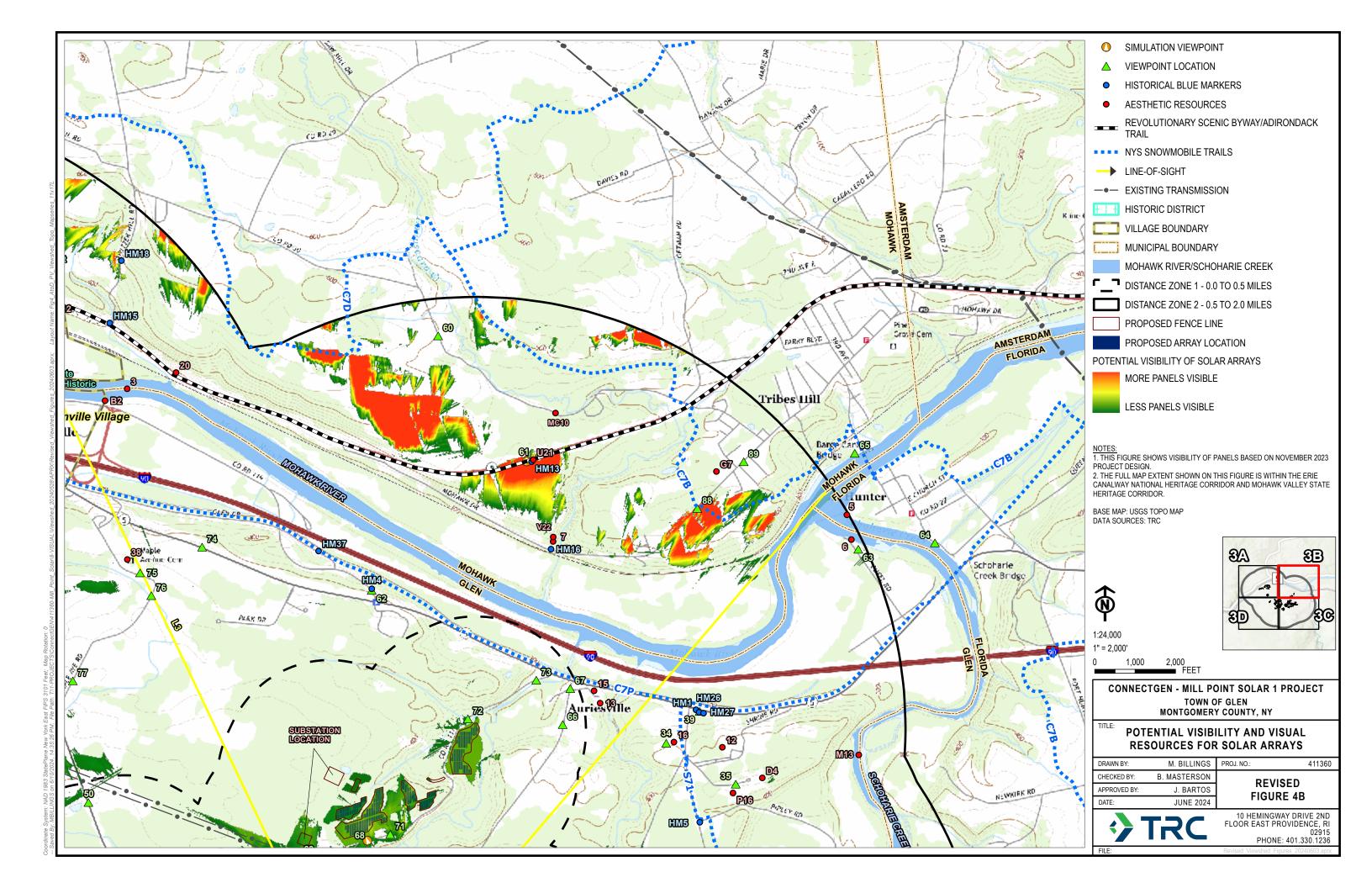


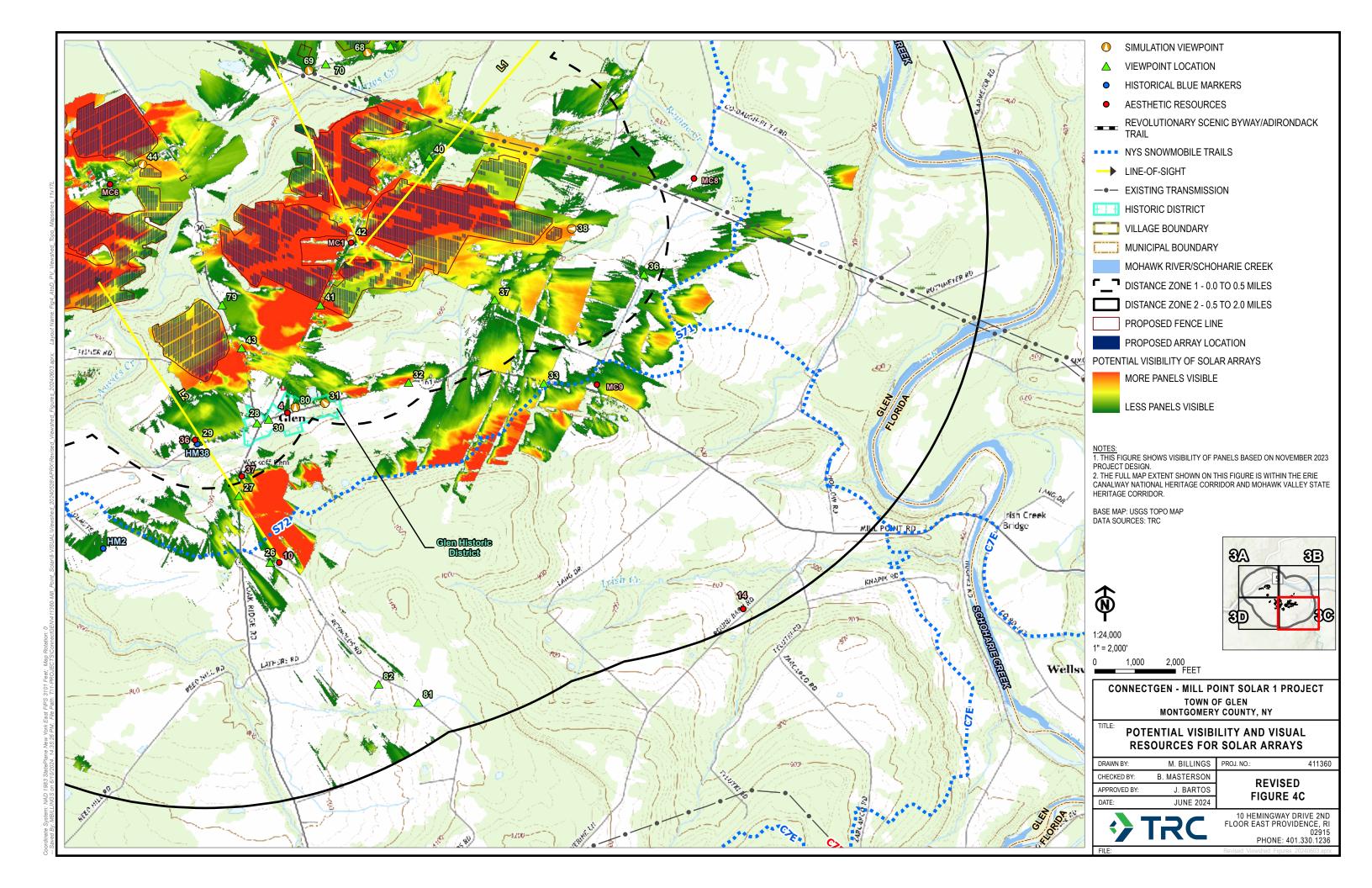


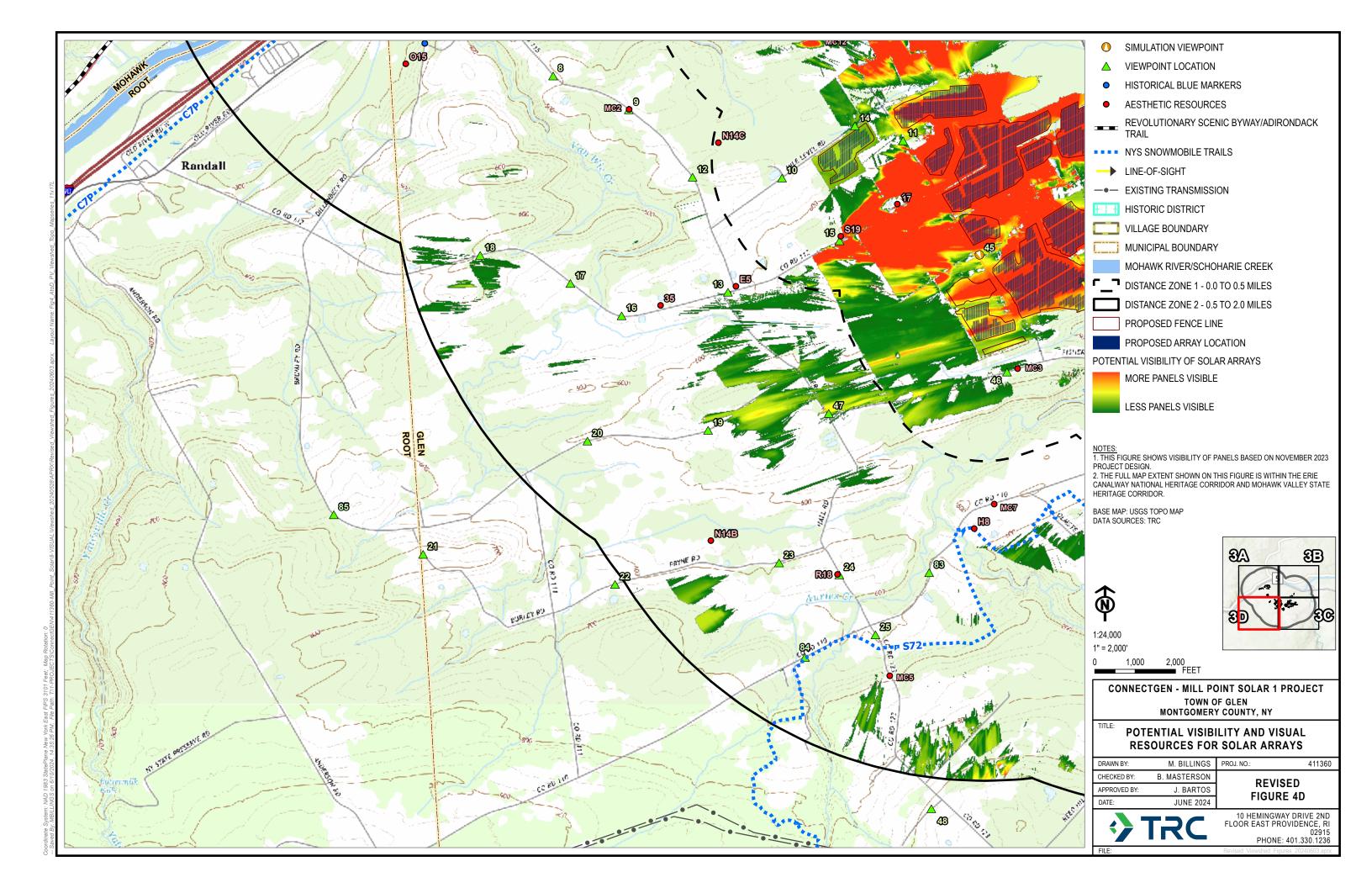


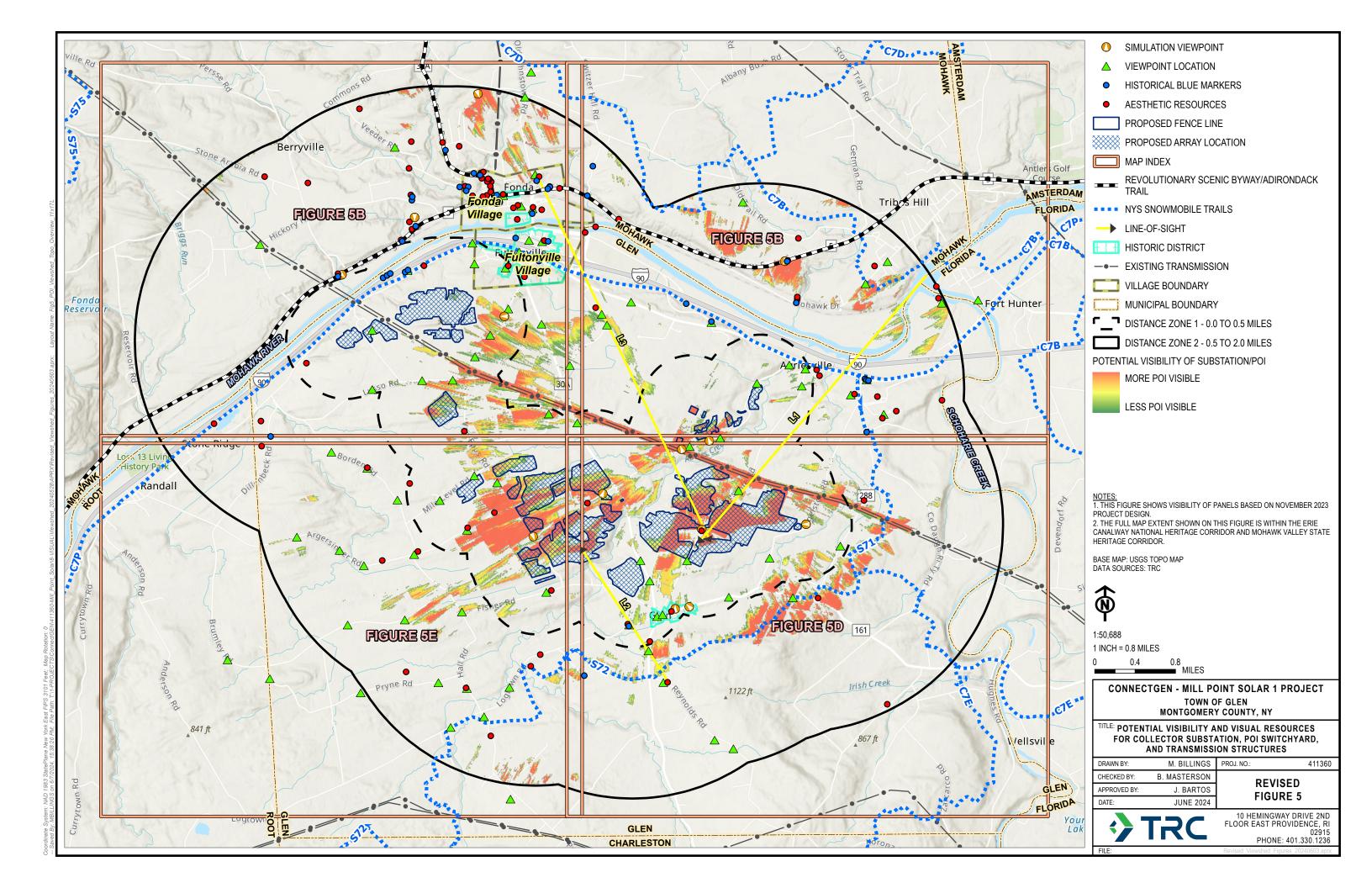


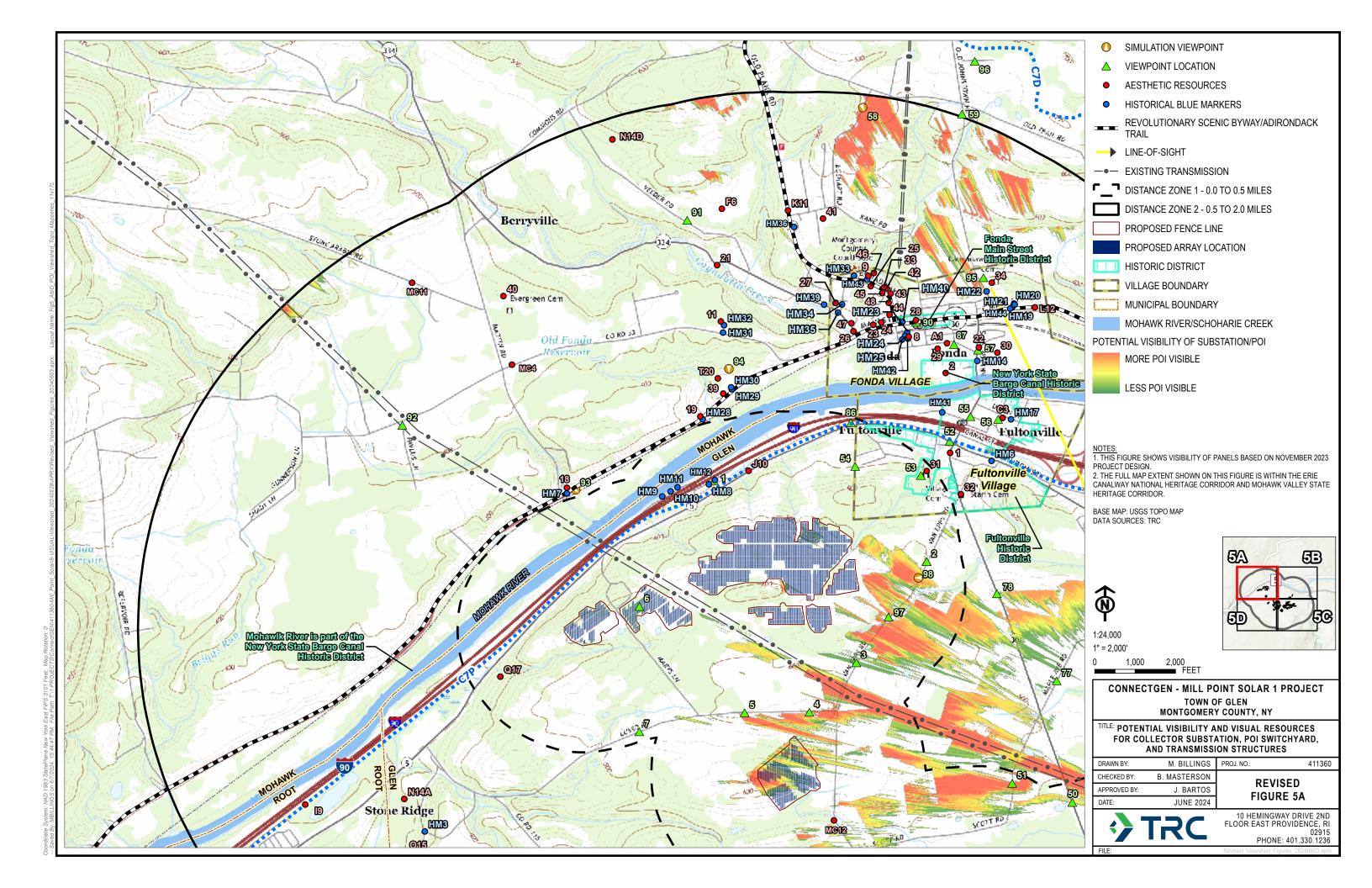


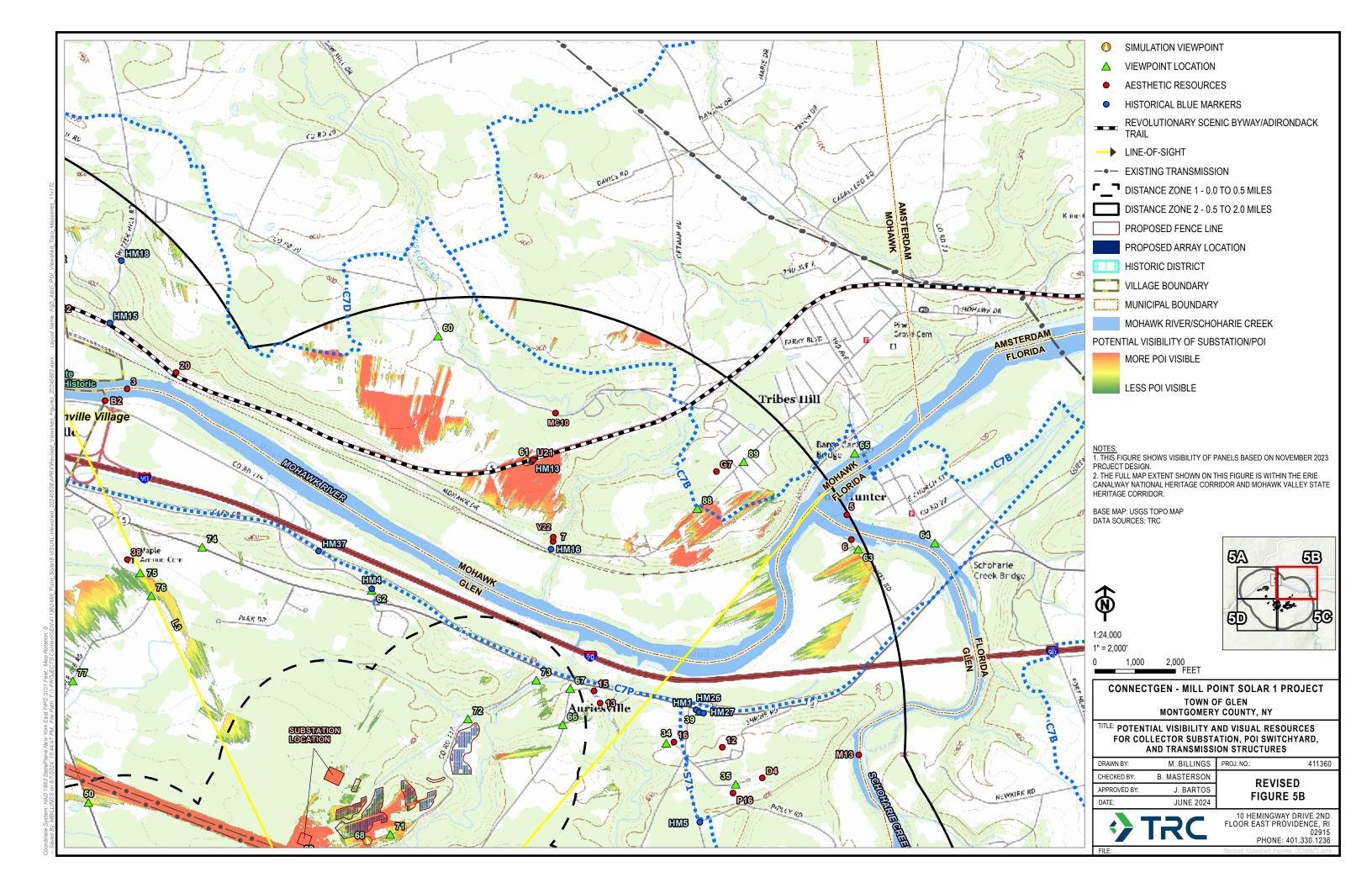


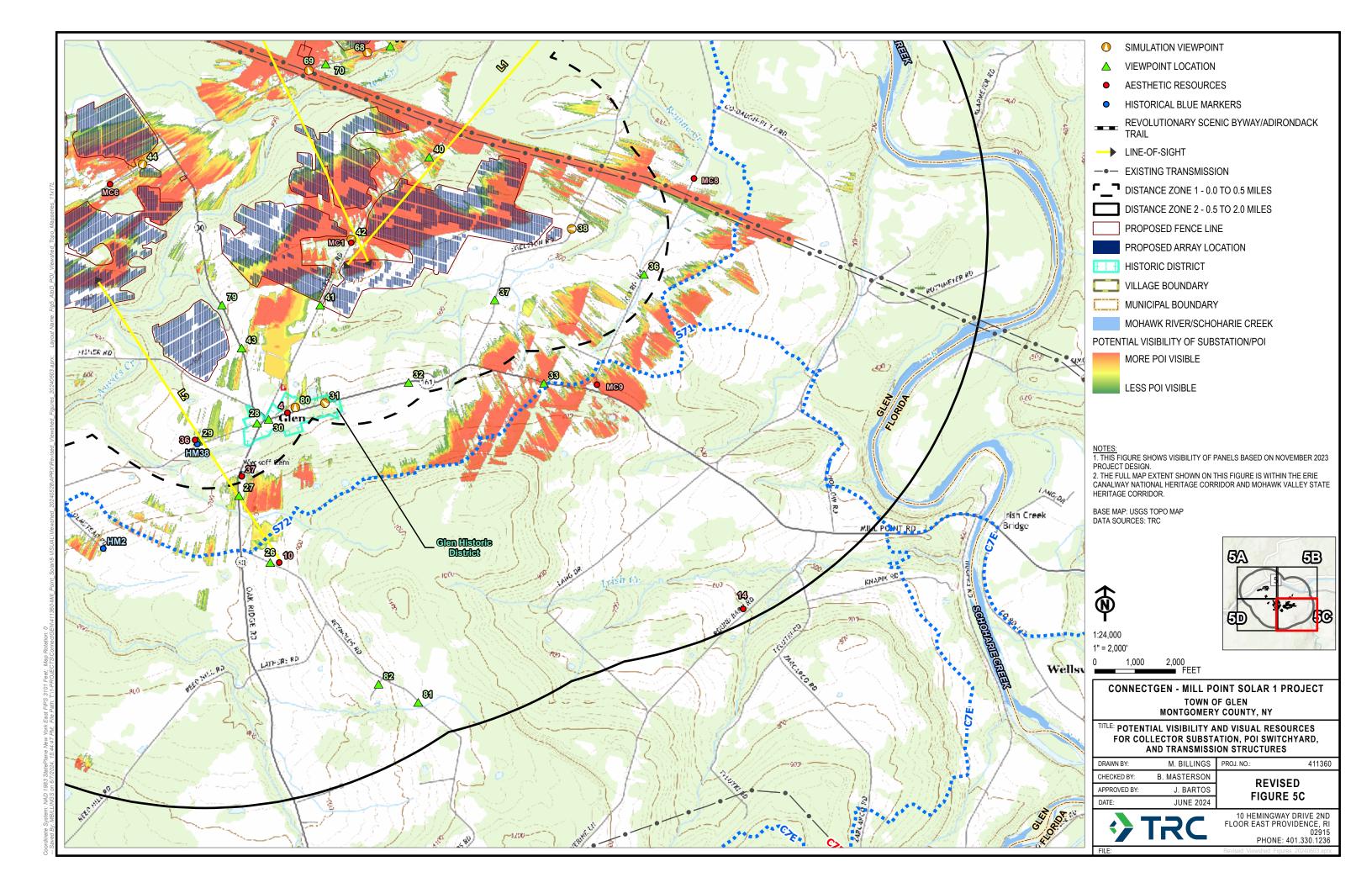


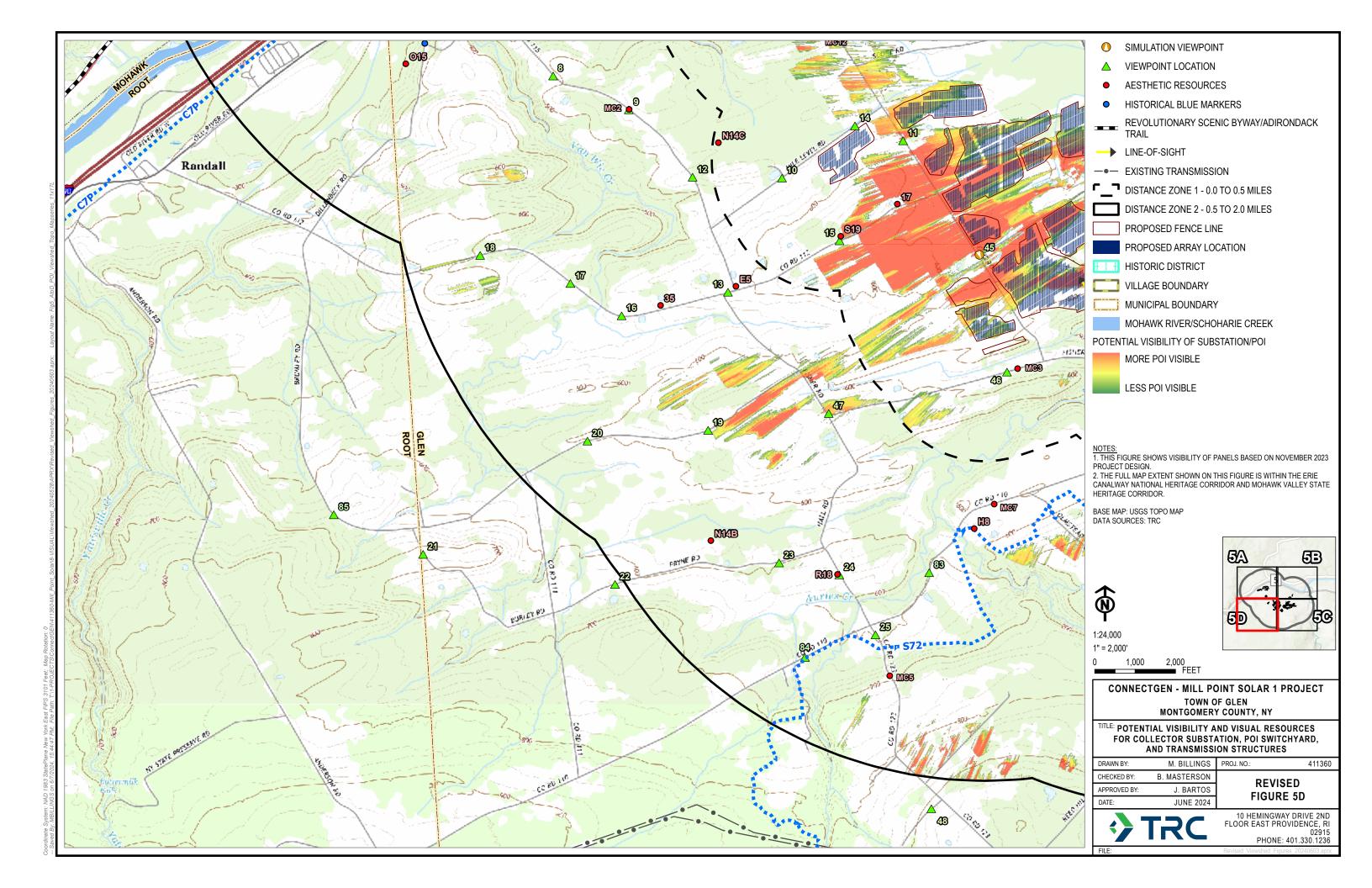












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