

# VISUAL IMPACT ANALYSIS

**Ridge Road Solar Project**

**Queensbury, New York**

**November 2025**



Prepared for:

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## 1. OVERVIEW

AC Power 47, LLC (the Applicant) is proposing to construct an approximately 5 megawatt alternating current (5 MWac) photovoltaic (PV) solar project (Project) on the site of the existing Town of Queensbury Landfill located along Ridge Road in the Town of Queensbury, Warren County, New York. The Project site is located within the boundary of the Adirondack Park, and is thus subject to the jurisdiction of the Adirondack Park Agency (APA). Subsequent to a site visit conducted on October 2, 2025, the APA requested that the Applicant produce a number of basic visual simulations demonstrating the potential effect of the construction of a solar development on the surrounding area. Thus, Tetra Tech, Inc. (Tetra Tech) thus completed a basic visual impacts assessment (VIA) in November 2025 to predict viewpoints from which the Project may be most visible to the public or nearby private residences, and to provide a framework for determining if mitigation for visual impacts may be required. The VIA helps guide planning for adequate landscape buffering to screen a solar facility from surrounding properties or roadways should it be necessary.

### 1.1. PROJECT SETTING

The Project Site is situated to the southeast of Ridge Road (NY State Route 9L) and to the east of Jenkinville Road. The Site is comprised of two contiguous parcels that are within an inactive landfill owned by the Town of Queensbury. The Project Site is bounded primarily by tax parcels used as landfills or for mining operations to the north, east, and south. The parcels northwest across Ridge Road are forested where they are nearest to the Project Site. A small commercial property is located southwest of the Project Site at the intersection of Ridge Road and Jenkinville Road.

### 1.2. PROJECT DESIGN CONSIDERATIONS

Project components have been designed to avoid and minimize environmental and visual impacts to the maximum extent practicable. The solar arrays will consist of PV panels held at a fixed tilt of approximately 25 degrees by a ground-mounted racking system. The racking system will be supported by concrete ballasts to minimize ground disturbance and prevent damage to the landfill cap. It is anticipated that interrow spacing of the array will be approximately 14 feet which can accommodate light vehicles for routine maintenance after construction. Additionally, there is a designed corridor intended to improve accessibility throughout the site. Inverters (with integrated transformers) within boxes on concrete pads will be located in the northwest corner of the site adjacent to existing

landfill/transfer station access roads. Additional internal infrastructure will be limited to permanent gravel access roads (approximately 20 feet wide), grass access corridors, electrical pole lineup in the northwest corner of the site, and perimeter fencing with emergency contact information posted and clearly visible. The solar panels will have anti-glare coatings, the Project is located away from any potential receptors, and many vantage points are effectively screened by existing vegetation, existing topography, and landfill/transfer station infrastructure.

Public roads will be used for construction access and general access during Project operation. It is not anticipated that any improvements to public road intersections or the addition of turnarounds will be required. Security fencing will consist of an approximately 7-foot-high fence, subject to electrical and building code requirements. Fencing materials will be decided in consultation with the Town of Queensbury.

## 2. VIEWSHED ANALYSIS

A joint site visit including representatives from Tetra Tech, Inc. (on behalf of AC Power) and the Adirondack Park Agency was conducted on October 2, 2025, to identify key observation points (KOP) in the surrounding neighborhood from which the facility might be visible. KOPs were established using the two public roads that bound the Site, Ridge Road and Jenkinville Road. A total of seven KOPs were selected, consisting of traveling north or south on either road, both entrances, and the location of the proposed interconnection from Ridge Road. An additional KOP was created at the Ridge Road entrance, as there are two gates that provide access to the Site.

### 2.1. PHOTOGRAPHIC SIMULATIONS

Photographic simulations that assume a viewer height of six feet were created for the KOPs. The simulations, as shown in Appendix A, were created using photographs taken in winter to depict the appearance of the solar arrays during leaf-off conditions, which simulates worst-case scenarios.

Photosimulations were developed using United State Geologic Survey (USGS) satellite imagery to align the proposed site plan in the correct physical location and create a three-dimensional model. Topographic survey data collected during project development was also used to achieve a higher level of accuracy. Subsequently, three-dimensional site features such as fencing, the solar arrays, and any

other features such as riser poles or electronics are added to the model based on the spacing, angle, etc. indicated in the site plan.

Following the creation of the three-dimensional model, the model is matched with photos taken in the field based on the desired perspective and/or viewshed. Manual manipulation may be necessary at this stage to capture real world conditions or to accurately portray site features and their locations.

Final photosimulations are rendered using GIMP 3.0.4, an image processing software, where the photograph is imported and layered on top of the three-dimensional rendering. After the photograph is properly superimposed on the rendering, superfluous components of the photosimulation are manually deleted to present the final product.

The simulations were used to determine the level of contrast between the existing landscape and the expected landscape after the Project is constructed. All viewpoints include the existing, pre-Project condition, followed by initial installation of the solar arrays. No landscaping or other vegetative screening is currently planned for the Project.

The full photographic simulations in Appendix A show actual weather conditions at the time the photographs were taken on October 29, 2025. It was a cool, partially cloudy day and the photos were taken between 12:00 PM EST and 2:00 PM EST.

As shown in Appendix A, the solar arrays will be visible at every KOP. The additional utility poles and equipment associated with the interconnection that are planned to be installed will also be visible.

## **2.2. NEIGHBORHOOD CHARACTER AND MITIGATIONS**

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The existing landscape character provides the context for assessing the effects of changes to the landscape. Landscape character is identified and described by the combination of scenic attributes that make each landscape identifiable or unique. A region's landscape character creates a sense of place and describes the visual image of an area. Past and present resource-based activity within the region surrounding the proposed Project has substantially changed the landscape by altering natural landforms and vegetation and introducing human-made features.

Much of the visual setting of the neighborhood is the result of a concentrated cluster of sand and gravel mining and landfill activity over the last several decades. In the context of a varied mix of mining,

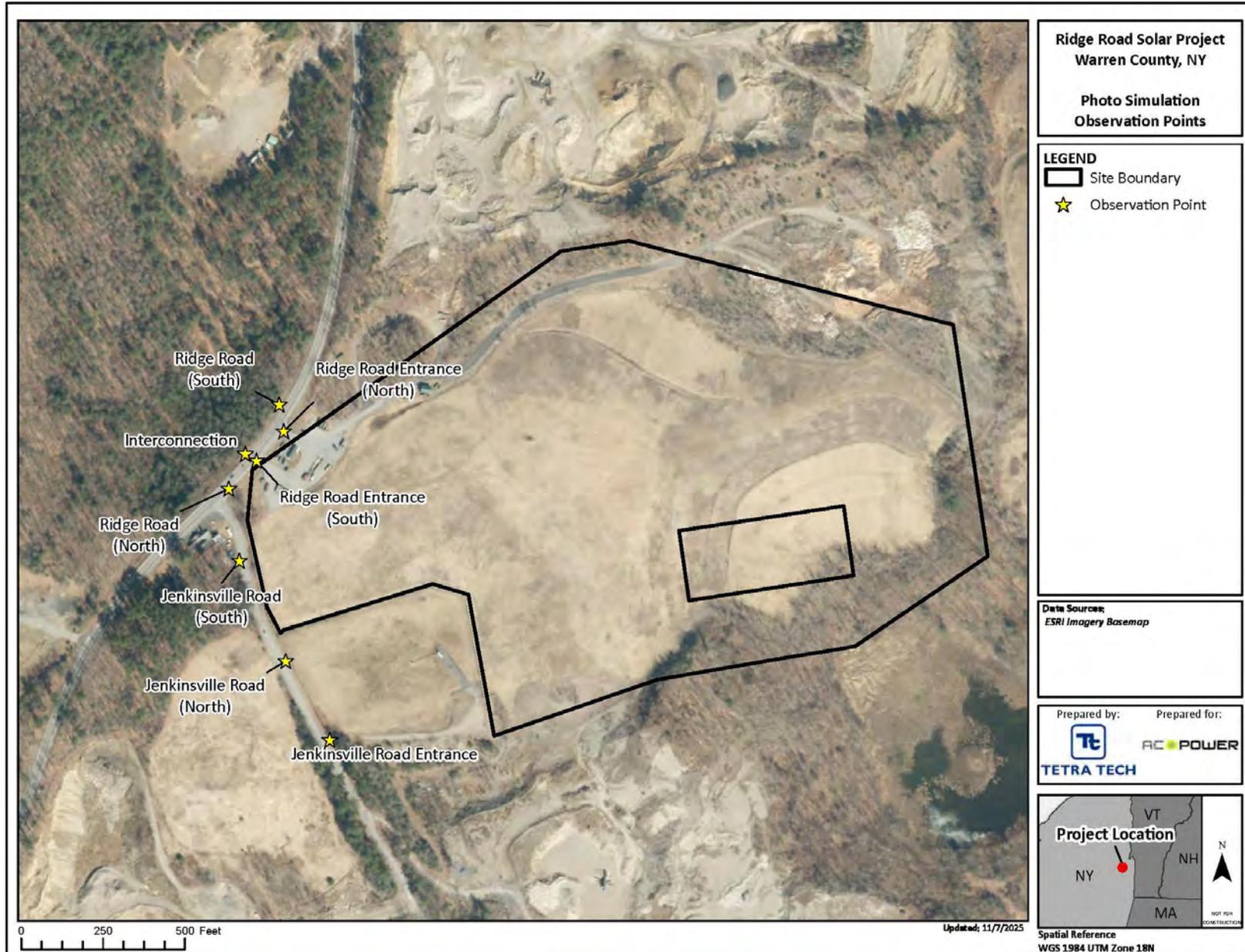
municipal waste, commercial/industrial uses, and residential uses in the area, the Project is not visually out of character with the neighborhood or community land use patterns. The following measures will be taken to ensure that the Project does not detract from the character of the neighborhood and to minimize and mitigate visual impacts:

- “Good housekeeping” will be implemented to keep the Project free of debris, trash, and waste during construction.
- The solar panels will be located within the existing open grassland within the Project area and vegetation clearing will be minimal. The forested wetland at the south end of the Project will be left untouched.
- When construction is complete, areas disturbed during the construction process will be reseeded.
- Panels will have anti-reflective coatings that will reduce the level of reflectivity.
- The electrical collection system will be located underground, to the maximum extent practicable. Electrical equipment will be constructed overhead or in cable trays for portions where necessary based on engineering constraints and preservation of the landfill cap.

### 3. CONCLUSION OF VISUAL IMPACT ASSESSMENT

Overall, the Project will be noticeable by those travelling adjacent to the Project along Ridge Road or Jenkinsville Road. During the construction period, viewers will be able to observe construction equipment, laydown areas, and crews. Varying degrees of visual contrast will occur when equipment and construction crews are present; however, this source of contrast will be short-term since equipment and support facilities will be removed once construction is complete. Visual effects during operation of the Project will result from the visibility of the aboveground components associated with the solar facility, including PV panels, inverters, distribution and collection lines, access roads, and perimeter fencing. The topography and vegetation within the existing landscape will partially screen the Project from viewers that are not directly adjacent to it and will therefore result in minimal visual impacts outside of the immediate vicinity of the Project Site.

## **APPENDIX A – VISUAL SIMULATION**



**Interconnection - Existing Condition**



**Interconnection - Photo Simulation**



**Jenkinsville Road Travelling North - Existing Condition**



**Jenkinsville Road Travelling North - Photo Simulation**



**Jenkinsville Road Travelling South – Existing Condition**



**Jenkinsville Road Travelling South – Photo Simulation**



**Jenkinsville Road Entrance - Existing Condition**



**Jenkinsville Road Entrance - Photo Simulation**



**Ridge Road North Entrance - Existing Condition**



**Ridge Road North Entrance – Photo Simulation**



**Ridge Road South Entrance - Existing Condition**



**Ridge Road South Entrance - Photo Simulation**



**Ridge Road Travelling North - Existing Condition**



**Ridge Road Travelling North – Photo Simulation**



**Ridge Road Travelling South - Existing Condition**



**Ridge Road Travelling South – Photo Simulation**

