

## Exhibit 9

A large, dark gray, sans-serif capital letter 'G' is positioned to the right of a large blue rectangular area. The 'G' is the first letter of the title 'Attachment G – Viewshed Analysis'.

Attachment G – Viewshed  
Analysis

*Page intentionally left blank.*

# Viewshed Analysis

White Palmetto Solar Project

*Sumter County, SC*

*April 18, 2025*

*Prepared for:*  
TOCE SC Solar 1, LLC, and  
Treaty Oak Clean Energy, LLC  
2901 Via Fortuna Suite 650  
Austin, TX 78746

*Page intentionally left blank.*

## Contents

1	Introduction .....	1
2	Methodology .....	1
3	Project Site Characterization.....	1
4	Potential Visual Effects.....	5
	4.1 Potential Visual Effects Minimizations.....	7
5	Conclusion.....	15

## Tables

Table 1. Viewpoints within 0.5 mile of the Project Site .....	2
---	---

## Figures

Figure 1. Viewpoints / visual receptors within 0.5 mile of the Project Site .....	3
Figure 2. Single-axis, tracking solar PV array with panels near maximum tilt as viewed from the east or west.....	6
Figure 3. The backside of solar panels in early morning or late afternoon configuration .....	7
Figure 4. Existing view of the proposed substation location on Borden Road.....	9
Figure 5. Rendered view of the proposed substation location behind existing vegetation on Borden Road. ....	9
Figure 6. Rendered view of the proposed substation entrance (red arrow) on Borden Road. ....	10
Figure 7. Existing view of the transmission line on Borden Road.....	11
Figure 8. Rendered view of the existing transmission line with a planted evergreen vegetative buffer obscuring the proposed substation. ....	12
Figure 9. View from a residence and along New Hope Church Road where a 50-foot-wide evergreen vegetative buffer would be planted directly behind the property line. ....	13
Figure 10. Residence on Black River Road where a 25-foot-wide evergreen vegetative buffer would be planted immediately behind the property line. ....	14



*Page intentionally left blank.*

# 1 Introduction

TOCE SC Solar 1, LLC (TOCE), a subsidiary of Treaty Oak Clean Energy, LLC, engaged HDR Engineering, Inc. (HDR) to provide a viewshed analysis for the planned White Palmetto Solar Project (Project) and the potential effects the Project may have on the surrounding landscape. The Project is a 170-megawatt alternating current (MWac), 227-megawatt direct current (MWdc) single-axis tracker solar photovoltaic (PV) generation facility with 42 central inverters spread out over approximately 1,763 acres. The Project will be in Sumter County, SC.

## 2 Methodology

Visual resources are composed of the visible character of a place and include both natural and human-made attributes. Visual resources influence how an observer experiences a particular location and distinguishes between locations. Such resources are important to people living in or traveling through an area and can be an essential component of historically and culturally significant settings. HDR utilized the scenery management system and associated analytical assessment procedures developed by the U.S. Forest Service for this analysis and adapted them for use within a natural and human-built environment and integrated with planning methods.<sup>1</sup>

The general Project Site viewshed is evaluated based on scenic attractiveness and scenic integrity. Scenic attractiveness is a measure of the scenic beauty of a landscape based on perceptions of the visual appeal of landforms, waterways, vegetation, and the human-built environment. Scenic attractiveness is assessed as either distinctive, typical/common, or indistinctive. As adapted for this analysis, scenic integrity measures the degree of visual unity of the natural and cultural character of the landscape. Scenic integrity is evaluated as either low, moderate, or high. This analysis also considers the character of the Project Site as an important factor in understanding the existing environment.

## 3 Project Site Characterization

The Project Site is within a rural agricultural area with isolated single-family homes and small rural-residential concentrations. The Project Site generally consists of moderately sloping terrain with elevations ranging from approximately 190 to 430 feet above mean sea level. The steepest slopes and highest elevations occur in the center of the Project Site and lower elevations occur in the western, northeastern, and southeastern portions. Scenic attractiveness of the general Project area viewshed is rated as typical or common of a rural agricultural and rural residential area. Scenic integrity is assessed as moderate to high due to the relative unity of the surrounding natural and cultural character.

A visual receptor, also known as a viewpoint, is a point within the line of sight of the Project Site. There are a total of 478 viewpoints within 0.5 mile of the Project Site, most being residences and vacant buildings, as given in Table 1 and shown on Figure 1. Some of the viewpoints identified may be out of

---

<sup>1</sup> U.S. Department of Agriculture. 1995. Landscape Aesthetics: A Handbook for Scenery Management. Agriculture Handbook Number 701. US Forest Service, US Department of Agriculture. Available at [https://www.fs.usda.gov/Internet/FSE\\_DOCUMENTS/stelprdb5412126.pdf](https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5412126.pdf) (accessed February 2025).



the line of sight due to changes in vegetation, air quality, or angles that were not accounted for in this analysis. There are no public parks and there are no known historic resources eligible for listing on the National Register of Historic Places identified within 0.5 mile of the Project Site.

*Table 1. Viewpoints within 0.5 mile of the Project Site*

<b>Viewpoint Type</b>	<b>Number of Viewpoints</b>
Business	1
Church	8
Farm Building	13
Industrial	1
Residential	237
School	0
Sports Field	0
Vacant Building (garage/shed)	189
Unknown	29
<b>Total</b>	<b>478</b>



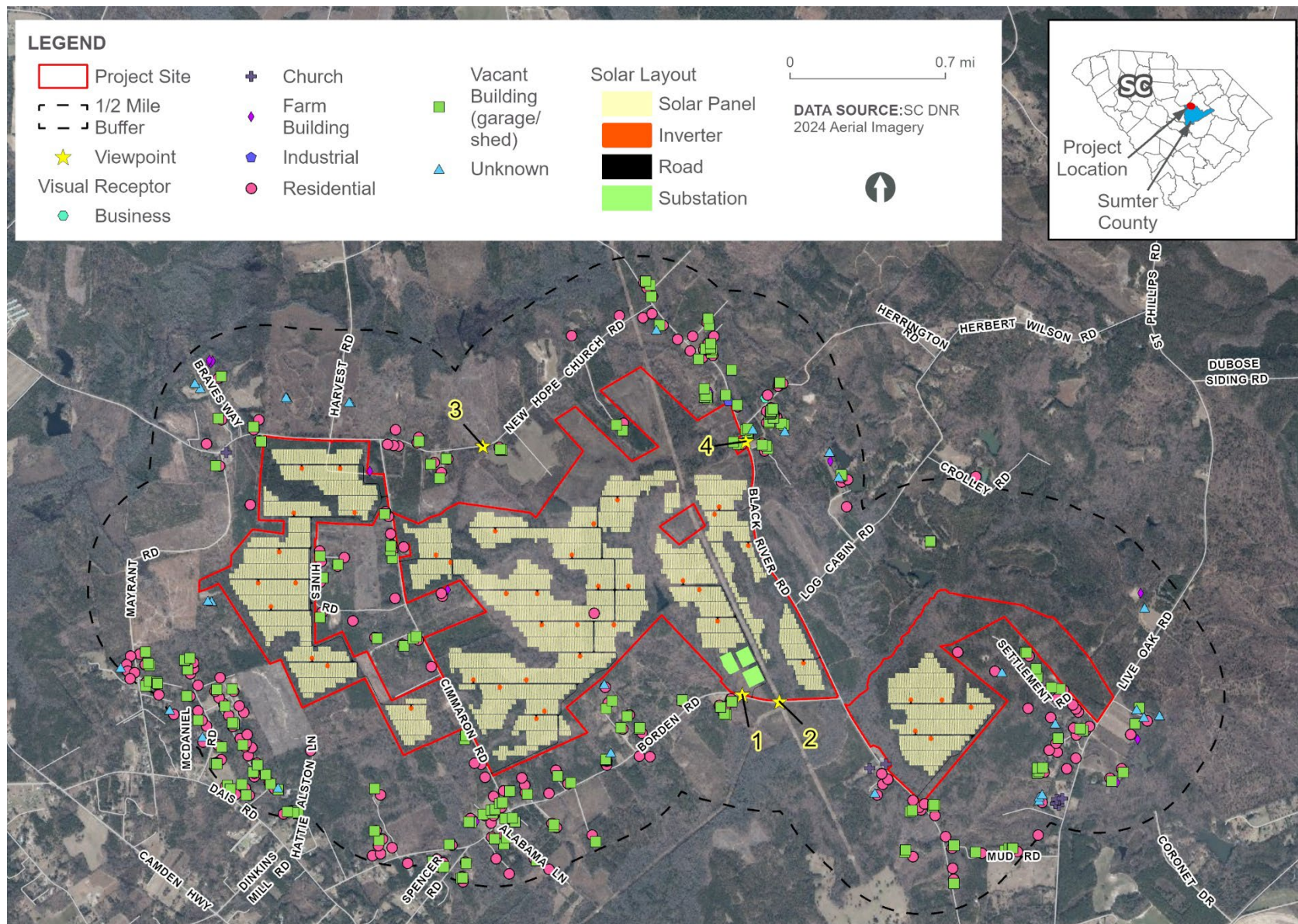


Figure 1. Viewpoints / visual receptors within 0.5 mile of the Project Site



*Page intentionally left blank.*

Prominent viewpoints surrounding the Project Site, where more concentrated visual effects from the Project could be observed, include small rural-residential concentrations along Black River Road, Borden Road, Cimmaron Road, Hines Road, Mayrant Road, New Hope Church Road, and other connected smaller roads, and traffic along Black River Road, Borden Road, Cimmaron Road, Hines Road, Mayrant Road, and New Hope Church Road. However, long-range views from most of these viewpoints near the Project Site are largely obscured by mixed deciduous/evergreen trees along fences and in forest stands, as shown on Figure 1. There are four specific viewpoints where the existing vegetation/forested areas may not obscure the solar facility, described in greater detail in Section 4.1 below.

## 4 Potential Visual Effects

Project construction activities would result in both temporary and long-term alterations of the visual character of the Project Site. During construction, heavy machinery would be present, changing the appearance from area viewpoints. Within the area to be developed for the Project, trees and other tall vegetation would be removed, and portions of the area would be graded, changing the contour, color, and texture of the scenery attributes. During and after grading, the Project Site would appear as a mixture of neutral colors such as browns and grays due to earthmoving, road construction, and concrete activities. Water would be used to keep soil from aerosolizing; thus, dust clouds are not anticipated. Visual impacts from construction would be minimal at night, because most construction is anticipated to occur during the day. Overall, there would be minor direct and indirect impacts to visual resources on the Project Site during the construction phase. These impacts would occur over a 12–18-month period, subject to weather.

The Project would convert what is currently primarily agricultural land to an industrial use mostly consisting of parallel rows of low-profile solar PV arrays. Figure 1 depicts the proposed Project elements and the locations of nearby viewpoints from which Project elements may be visible. Figure 2 and Figure 3 show representative views of the type of solar panels proposed for the Project. In the morning, when panels would be facing east, the more pronounced visual effects of the glossy front PV panel surfaces would largely occur from viewpoints to the east of the Project Site, along Black River Road, Borden Road, Cimmaron Road, Hines Road, and New Hope Church Road. In the evening, when panels would be facing west, the more pronounced visual effects would largely occur from viewpoints to the west of the Project Site, along Black River Road, Borden Road, Cimmaron Road, Mayrant Road, and New Hope Church Road.





*Figure 2. Single-axis, tracking solar PV array with panels near maximum tilt as viewed from the east or west*



Figure 3. The backside of solar panels in early morning or late afternoon configuration

## 4.1 Potential Visual Effects Minimizations

Impacts to prominent viewpoints surrounding the Project Site would be minimized by existing vegetative/forested areas that would comprise a natural buffer around most of the Project Site. To comply with the Sumter County Zoning and Development Standards Ordinance, specifically *Article 5, Section 5.b.3.f. Primary Photovoltaic Solar Energy Systems (NAICS 221114)*<sup>2</sup>, as amended and adopted on December 10, 2024, impacts of the manufactured, structured appearance of the built facility would be minimized by utilizing the existing vegetative/forested buffers within the required Sumter County setbacks for solar facilities:

- 50 feet from the platted right-of-way (ROW) line of private roads;
- 100 feet from adjacent property lines of non-residentially used parcels in the Agricultural, Conservation, Commercial, and Industrial Zoning Districts;
- 200 feet from adjacent property lines of residentially used parcels regardless of zoning district;
- 200 feet from adjacent property lines of undeveloped parcels in Residential Zoning Districts;
- 200 feet from the property line of public roads; and
- 300 feet from the property line of principal or minor arterial public roads.

<sup>2</sup> Sumter County. 2024. Sumter County Zoning and Development Standards Ordinance, *Article 5, Section 5.b.3.f. Primary Photovoltaic Solar Energy Systems (NAICS 221114)*. Available at [https://www.sumtersc.gov/sites/default/files/uploads/Departments/Planning/CountyOrdinances/article\\_5\\_county.pdf](https://www.sumtersc.gov/sites/default/files/uploads/Departments/Planning/CountyOrdinances/article_5_county.pdf) (accessed February 2025).



In areas where existing vegetative/forested areas do not obscure the solar facility from public ROWs and residential uses on adjacent parcels, *Article 5, Section 5.b.3.f.* stipulates that a minimum 50-foot-wide landscape buffer containing evergreen vegetative screening is required. The vegetative buffer would consist of an opaque year-round evergreen vegetative visual screen of at least 6 feet high over 3 growing seasons and not less than 20 feet high at maturity as a supplement to existing mature trees and shrubs in the required setback areas and where existing vegetation is insufficient for required screening. All new plantings would include an irrigation system that would be maintained until all plant materials are fully established and thriving, and dead or diseased plant materials would be replaced within 60 days of notification by Sumter County. The Project would ensure all buffer plants remain healthy and thriving. To meet these requirements, the Project will be implementing a Landscape Buffer Plan which depicts locations of where buffer plantings are proposed, graphically details the proposed buffers in plan and longitudinal view sections, provides anticipated amount of plant material needed per section, provides planting and seed mix schedules, typical planting details, and wildlife-friendly fence detail.

There are four specific viewpoints where the existing vegetation/forested areas may not obscure the solar facility (two from public ROWs on Borden Road, one from along New Hope Church Road, and one from a residence on Black River Road) (Figure 1). No other viewpoints (i.e., visual receptors) were identified that may not be obscured from the solar facility. The below discussion related to the proposed buffers at each of the four viewpoints is also graphically depicted in the Project's Landscape Buffer Plan mentioned above.

Viewpoint 1 is from a public ROW on Borden Road at the proposed substation west of the existing transmission line corridor (Figure 1). The existing vegetation at the proposed substation on Borden Road is wider than 50 feet and is sufficient for required screening TOCE is proposing to monitor the existing vegetation at this location and supplement with evergreen buffer plantings, only if warranted. Figure 4 depicts the existing location without the proposed substation and Figure 5 and Figure 6 depict rendered views of the proposed substation and entrance behind the existing vegetative buffer rendered with 10 years of additional growth (without a planted evergreen vegetative buffer).



*Figure 4. Existing view of the proposed substation location on Borden Road.*



*Figure 5. Rendered view of the proposed substation location behind existing vegetation on Borden Road.*





*Figure 6. Rendered view of the proposed substation entrance (red arrow) on Borden Road.*



Viewpoint 2 is from a public ROW on Borden Road at the existing transmission line corridor (Figure 1). At this location, the existing vegetative/forested areas parallel to the transmission line (but not in the first 50-foot-wide vegetative buffer adjacent to Borden Road) will be cleared. The proposed substation and switchyard would be constructed adjacent to this existing infrastructure, connected to the existing transmission line, and would not be obscured from this public ROW viewpoint. At this location, an evergreen vegetative buffer will be planted to obscure this viewpoint from the public ROW. Figure 7 depicts the existing view of the transmission line from Borden Road. Figure 8 depicts a rendered view of the proposed planted evergreen vegetative buffer obscuring the view of the proposed substation and switchyard from the public ROW.



*Figure 7. Existing view of the transmission line on Borden Road.*



*Figure 8. Rendered view of the existing transmission line with a planted evergreen vegetative buffer obscuring the proposed substation.*



Viewpoint 3 is from a location along a curve on New Hope Church Road, including a residence at the same location where the existing vegetative/forested areas may not obscure the solar facility (Figure 1 and Figure 9). Given the distance from this location to the arrays (approximately 1,300 feet), and the existing vegetation of variable growth and type within this 1,300-foot-wide area, TOCE does not believe the arrays would be seen easily, but is committing to planting a 50-foot-wide evergreen vegetative buffer at the Project's property line to ensure the arrays are obscured from view.



*Figure 9. View from a residence and along New Hope Church Road where a 50-foot-wide evergreen vegetative buffer would be planted directly behind the property line.*

Viewpoint 4 is from a residence on an adjacent parcel on Black River Road where the existing vegetative/forested areas may not obscure the solar facility (Figure 1). This property is private (Figure 10) and could not be accessed; however, utilizing Google Earth, this location has an existing buffer of variable vegetation growth and type that is approximately 160 feet wide between the residential structure and property line. From this property line, there is approximately 650 feet of existing buffer of variable vegetation growth and type before PV arrays are installed. TOCE is proposing to plant a 25-foot-wide evergreen vegetative buffer immediately behind the property line to provide additional buffer to the approximately 810 feet of existing vegetation between the residential structure and arrays. Due to the width of the existing vegetation (~810 feet) and distance of the residential structure from the Project's infrastructure (~1,600 feet), a 25-foot-wide evergreen vegetative buffer would be sufficient for required screening.



*Figure 10. Residence on Black River Road where a 25-foot-wide evergreen vegetative buffer would be planted immediately behind the property line.*

Long-range views from the prominent viewpoints near the Project Site along Borden Road and New Hope Church Road are partially obscured by existing mixed deciduous/evergreen trees along fences and in forest stands. Because most of the mature tree buffers include deciduous trees, their effectiveness in blocking views of the Project may be reduced from late autumn through early spring; however, the density of the existing vegetation interspersed with existing evergreens, existing wide buffers, and proposed evergreen vegetative buffer plantings (detailed in the Project's Landscape Buffer Plan), views of the Project would be minimal year-round. Long-range views from travelers along Borden Road are obscured by mixed deciduous/evergreen trees along fences and in forest stands except for a portion along the southern boundary of the Project Site, near the proposed substation and existing transmission line. However, in following *Article 5, Section 5.b.3.f*, the Project would utilize the existing buffer (monitored and supplemented with plantings, if warranted) between Borden Road and the proposed substation (Viewpoint 1) and an evergreen vegetative buffer would be planted between the proposed substation and the transmission line (Viewpoint 2) to obscure the Project from these viewpoints. Project elements may also be visible from a roadway view and private property on New Hope Church Road (Viewpoint 3) if left unbuffered. Thus, the Project will be obscured from Viewpoint 3 by a planted, 50-foot-wide evergreen vegetative buffer. Lastly, at the residence on Black River Road (Viewpoint 4), a 25-foot-wide evergreen vegetative buffer will be planted immediately behind the property line to supplement the existing vegetation between the residential structure and arrays. Additionally, the proposed substation and facility lighting would be downward-facing, timer- and/or motion-activated, and low glare to minimize impacts and visibility to surrounding areas.

## 5 Conclusion

The visual alteration from agricultural land in an area where scenic attractiveness is rated as typical or common and scenic integrity is rated as moderate to high due to the relative unity of the surrounding natural and cultural character to a large solar facility would likely result in moderate adverse visual impacts. The scenic attractiveness rating would change to indistinctive of a rural agricultural and rural residential area and the scenic integrity rating would change to low to moderate. Overall, the visual effects of the built facility would likely be minor due to the visibility of relatively small portions of the Project elements due to Project adherence to the setbacks, planting of evergreen vegetative buffers where needed, and commitments to minimizing substation and facility lighting impacts. Visual effects from the Project would be minimal on a larger scale, due to variation of the visual attributes of the Project Site as distance from the Project increases.



*Page intentionally left blank.*