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## TECHNICAL MEMORANDUM

**To:** PCR Investments SP4 LLC  
1334 Brittmoore Road, Suite 2407  
Houston, Texas 77043

**Submitted to:** Sandoval County, New Mexico  
1500 Idalia Road, Building D  
Bernalillo, New Mexico 87004

**From:** Brynn Guthrie, PLA

**Date:** December 5, 2024

**Re:** **Visual Resources Technical Memorandum for the Diamond Tail Solar Project,  
Sandoval County, New Mexico/ SWCA Project No. 94628**

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### Introduction

SWCA Environmental Consultants (SWCA) has prepared this visual resources technical memorandum (memo) for the proposed Diamond Tail Solar Project (project) in Sandoval County, New Mexico. PCR Investments SP4 LLC (Applicant) plans to construct, operate, and maintain a utility-scale photovoltaic (PV) solar facility and battery energy storage system (BESS) on approximately 1,833 acres of private land located about 2.7 miles northwest of Golden, New Mexico, and 1.75 miles west of New Mexico State Route 14 (NM-14), a designated National Scenic Byway, the Turquoise Trail. The project area is primarily surrounded by undeveloped, private desert lands. The project also proposes a 5.58-mile-long, 345-kilovolt (kV) overhead generation tie line (gen-tie) from the solar facility substation to the existing Diamond Tail substation, carried on wooden H-frame structures.

### *Purpose and Methods*

The purpose of this visual resources technical memo is to provide information to support informed decision-making between the Applicant and the Planning Commission of Sandoval County. This memo identifies and characterizes the level of visual modification in the landscape that would result from the construction and operation of the project. Specifically, visual effects from the project on NM-14 and surrounding residential and recreation areas were investigated.

SWCA employed the following steps to assess the potential impacts on the landscape character and sensitive views. First, a visual analysis area for the project was defined; viewshed analyses were conducted to define patterns of likely visibility; then a desktop assessment and identification of four representative critical viewpoints was completed, followed by a site visit to collect baseline photography and the preparation of photo simulations. Lastly, this technical memo was prepared to summarize the potential visual impacts of the project based on the existing conditions inventoried.

The analysis area for this project is defined as a 5-mile-wide buffer from the project solar array area and as a 3-mile-wide buffer for the project gen-tie, concentrating on areas from which viewers could potentially see any part of the project. Viewshed analysis maps are presented in Attachment 1.

## REGULATORY CONTEXT

To support this study of potential visual impacts, applicable local development standards and guidelines were reviewed, including the Sandoval County Comprehensive Plan (2024) and the Comprehensive Zoning Ordinance of Sandoval County, New Mexico (2020). Neither of these documents contains specific standards, policies, or guidelines pertaining to visual effects from utility-scale solar developments.

In addition to local land use plans, the analysis area contains a section of the Turquoise Trail National Scenic Byway, which is guided by the *Turquoise Trail Corridor Management Plan (CMP)* (Turquoise Trail Association 2006). Originally adopted in 1999 and updated in 2006, the vision statement for the Turquoise Trail National Scenic Byway is “to achieve an environmentally clean, scenic corridor with managed growth and have the ability to provide travelers with an interesting, educational, recreational, cultural, historic, and natural experience” (Turquoise Trail Association 2006:4-1). The CMP describes views from the Turquoise Trail as “breathtaking, awesome, inspirational, religious, historic, extraordinary, natural, incredible, and unique” (Turquoise Trail Association 2006:5-12). The CMP contains goals, objectives, and strategies to guide various aspects to achieve the vision for the byway over time. Although none of the goals directly address scenic views, the following are relevant to this study:

### 6.3 Protection goals:

- To preserve and protect the intrinsic assets of the Turquoise Trail Scenic Byway.
- Protect natural resources.

### 18.6 Land management goals:

- Prevent development that will not protect the intrinsic qualities of the byway
- Use development to enhance the intrinsic qualities of the byway
- Use development to increase the quality of life of the people living on the byway
- Use development to enhance the visitor experience

While the CMP seeks to guide the protection of the intrinsic qualities of the byway and enhance opportunities available to visitors, land uses surrounding the Turquoise Trail are ultimately regulated by the counties through which it passes.

## INVENTORY COMPONENTS

### Landscape Character

The term *landscape character* refers to the overall visual and cultural impression of the landscape based on the distinct landscape attributes that exist throughout an area. Landscape character is a product of both natural and human influences on the landscape. The term *landscape character* is often confused with the term *scenic quality*, which instead is a measure of the intrinsic beauty of landforms, water forms, or vegetation in the landscape. Describing landscape character relies, in part, on understanding how the landscapes within the project analysis area fit into the regional scale. The U.S. Environmental Protection Agency ecoregions (Griffith et al. 2006) provide a basis for assessing landscape character at this scale.



## Sensitive Viewers

SWCA identified viewing locations representing places where the public could view the project. The identification of key observation point (KOP) locations included a review of travel routes, residential areas, and public use areas within the analysis area to represent critical viewpoints and typical views in representative settings. The level of concern for changes in the landscape, as viewed from KOPs, varies based on duration of view, volume of use, visual sensitivity, and whether the viewing location has scenic or historic status. In general, views from residences, scenic roads, and public use areas would be more visually sensitive and include longer-duration views compared to views from low-use roads or industrial areas. These viewer groups, along with aerial photographs, topographic maps, and desktop investigations of the analysis area, were considered to determine the KOPs for the analysis.

## IMPACT ASSESSMENT

Impacts to both landscape character and sensitive viewers are determined, in part, by evaluating the visual contrast the proposed features would have with the existing landscape. Visual contrast refers to the degree of visual change introduced by a project, as indicated by modifications to basic design elements (form, line, color, and texture), compared to the existing visual setting. The degree of visual contrast considers the existing landforms, vegetation, and built features present in the landscape and is described in terms of the degree of perceptible change in the basic design elements of form, line, color, and texture that would be evident by the introduction of the project in the landscape (BLM 1986).

After assessing the level of visual contrast introduced by the project, impacts on landscape character and on views from identified sensitive KOPs were identified using the following approach. Impacts on landscape character were assessed by comparing the level of visual contrast with the existing landscape character to determine the magnitude of visual impacts as described in Table 1. Impacts on viewing locations represented by KOPs were assessed by evaluating visual contrast, viewer sensitivity, and viewshed analysis in context with the distance to the project based on the criteria outlined in Table 1. If impacts were found to be between the low, moderate, and high impacts identified in Table 1, additional impact thresholds were identified (i.e., low-moderate and moderate-high) to describe the intensity of impacts.

**Table 1. Criteria for Assessing Level of Impacts on Visual Resources**

Impact Level	Impacts on Landscape Character	Impacts on Viewing Locations
Negligible	Landscape would appear unaltered, and project elements would not be visually evident. Project elements would repeat the form, line, color, texture, or scale common in the landscape.	Project components would repeat form, line, color, texture, or scale common in the landscape and would not be visually evident to the casual observer.
Low	Landscape would appear slightly altered. Project elements would introduce form, line, color, texture, or scale common in the landscape, would be visually subordinate and not attract attention.	Project elements would introduce form, line, color, texture, or scale common in the landscape and would create weak contrast compared with other features in the landscape when viewed. The project would be seen but would not attract attention of the casual observer.
Moderate	Landscape would appear to be moderately altered, and project elements would begin to dominate the visual setting. Project elements would introduce form, line, color, texture, or scale not common in the landscape and would be visually prominent in the landscape.	Project elements would introduce form, line, color, and texture that would attract attention of the casual observer and would create moderate contrast compared with other features in the landscape when viewed.

Impact Level	Impacts on Landscape Character	Impacts on Viewing Locations
High	Landscape would appear to be heavily altered, and project elements would dominate the visual setting. Project elements would be out of scale or contain detail that is out of character with the existing landscape.	Project elements would introduce form, line, color, and texture that would be visually dominant for the casual observer and would dominate the visual setting, creating strong contrast compared with other features in the landscape.

## Inventory Results

### LANDSCAPE CHARACTER

The analysis area falls within the Arizona/New Mexico Plateau and the Arizona/New Mexico Mountains Level III Ecoregion; more specifically, the project components are proposed within the Albuquerque Basin and the Conifer Woodlands and Savannas Level IV Ecoregions (Griffith et al. 2006). The scenery in the analysis area is consistent with rural landscapes in this region of central New Mexico, although additionally recognized for its scenic quality by the presence of NM-14, the Turquoise Trail. This National Scenic Byway was designated in 1996 for its nationally significant intrinsic qualities, including scenic views (Turquoise Trail Association 2006). Within the analysis area, the NM-14/Turquoise Trail offers views of the Sandia Mountains, vast mostly undeveloped wooded desert basins and ridges, unique historic structures in the community of Golden, as well as Placer Mountain, San Pedro and the South Mountains in the background. There are no improved overlooks or similar discrete viewpoints along NM-14 within the analysis area, however.

The proposed gen-tie would span 5.58 miles from the project substation before traversing northwest to the existing Diamond Tail substation. The gen-tie would be constructed parallel to an existing overhead transmission corridor comprised of 345-kV and 115-kV lines. In total, this existing overhead transmission corridor is approximately 375 feet wide where it crosses NM-14. Its components—the clear zone void of trees along the corridor, in addition to the varied and disharmonious styles of pole structures used—result in prominent electrical infrastructure in the viewshed immediately surrounding the project.

### SENSITIVE VIEWERS

#### Key Observation Points

KOPs were chosen to represent potential views of the project from major and minor roadways, NM-14 specifically due to its designated National Scenic Byway status, in addition to residential and recreation areas. Four KOPs representing representative and worst-case viewing conditions of prominent project views were selected. SWCA conducted a field visit in November 2024 to assess each KOP and collect existing photographs and field survey documentation. Table 2 lists the identified KOPs and associated viewer type and reason for inclusion. Visual simulations illustrating existing and proposed views are presented in Attachment 2.

**Table 2. Selected KOP Locations and Sensitive Viewer Type**

KOP Number	KOP Name	Location (Latitude, Longitude)	Sensitive Viewer Type	Approximate Distance from Project Boundary (miles)	Rationale for Inclusion
1	New Mexico State Route 14/Turquoise Trail	Located along NM-14, Turquoise Trail 35°19'12.29"N, 106°12'54.25"W	Vehicular travelers	1.9	Representative of views while traveling along NM-14/Turquoise Trail northeast of the project. This highway is a designated National Scenic Byway.

KOP Number	KOP Name	Location (Latitude, Longitude)	Sensitive Viewer Type	Approximate Distance from Project Boundary (miles)	Rationale for Inclusion
2	New Mexico State Route 14/Turquoise Trail	Located along NM-14, Turquoise Trail 35°17'52.60"N, 106°12'57.27"W	Vehicular travelers	1.7	Representative of views while traveling north and south along NM-14/Turquoise Trail east of the project. This highway is a designated National Scenic Byway.
3	Los Duendes Trail	Located along the Golden Open Space Los Duendes Trail 35°16'16.67"N, 106°19'35.25"W	Recreational viewers	3.5	Representative of recreational views along the Golden Open Space Los Duendes Trail. Views of the project would be to the northeast.
4	La Cantera	Located along La Cantera, a residential road 35°13'38.29"N, 106°18'55.54"W	Vehicular travelers, residential viewers	5.6	Representative of views of high-elevation residential viewers located southwest and south of the project.

## Impact Assessment Results

Below is a general description of the potential impacts to landscape character and sensitive viewers based on the construction and operation of the project. Overall, impacts associated with the project would be negligible to moderate because, although foreground trees screen the project from view from many locations, when visible the project components would introduce a noticeable feature into the landscape that would begin to attract attention from sensitive viewpoints, including from NM-14 and high-elevation areas.

### LANDSCAPE CHARACTER

The project would introduce a new 1,833-acre solar array area, 345-kV gen-tie, and supporting infrastructure to a landscape currently dominated by mostly undeveloped desert woodland basins and arroyos and backdropped by Placer Mountain to the east and the Sandia Mountains and Palomas Peak to the southwest. The solar array panels would be approximately 8 feet high when fully tilted (i.e., during early morning and late afternoon) and would use galvanized steel finish structures to support the dark blue-black glass finish panels. The lines, forms, colors, textures, and scale of the project solar arrays in particular would be dissimilar in appearance to the dominant natural desert landscape character. However, the project is located in an isolated area of predominantly private lands and foreground views of the project (within 0.5 mile) are extremely limited and inaccessible. For this reason, views of the project for the majority of viewers would be limited to publicly accessible areas at a distance of 1.7 miles or more, measuring from NM-14. Moreover, the landscape surrounding the project is uniformly wooded with low-growing evergreen trees (including pinyon pine, tree cholla, Rocky Mountain juniper, among others) and other vegetation, in addition to highly varied terrain including steep ridgelines and winding drainageways. In combination, the landscape terrain and vegetation would screen or fully block the project from view from most locations within the visual analysis area (see Attachment 1: Viewshed Analysis). Where they would be visible, the project solar arrays would be expected to draw attention due to their scale and dark massing and contrast in form, color, and texture, resulting in moderate visual contrast and low-moderate impacts to landscape character.

The project gen-tie would be seen from high-elevation locations but would be visually similar to existing overhead utility structures and would result in generally weak visual contrast (see Attachment 1). Visual impacts to the existing landscape character as a result of the project gen-tie would not be expected.

## **SENSITIVE VIEWERS**

The following is a summary of anticipated impacts to sensitive viewers resulting from the construction and operation of the project, organized by KOP. For the evaluated KOPs, the project BESS and substation would be too far from the viewer to be perceived, and therefore they would not be expected to introduce visual contrast. Visual simulations for each KOP are included in Attachment 2.

### **KOP 1—New Mexico State Route 14 / Turquoise Trail**

The solar arrays would be visible to the west from the road where not screened by vegetation, at a distance of approximately 2 miles. The solar arrays would create visual contrast through their flat, geometric form, massing and light to dark gray tones, and slightly reflective surfaces, and would introduce new features to the landscape and begin to attract attention from portions of NM-14 where roadside vegetation is open, allowing views into the distance to the west. The panels would create more visual contrast seen from NM-14 during morning hours, as the dark glassy faces of the panels would be oriented toward the rising sun. At midday and into the afternoon as the panels track the sun to the west, the lighter grey reverse sides would face NM-14, and visual contrast from NM-14 would be reduced. In general, the solar arrays would be similarly visible for both northbound and southbound travelers on NM-14; however, it is anticipated that southbound travelers would notice the project slightly more as they descend from a high point along NM-14 in proximity to the solar arrays. The transmission gen-tie would not be perceivable from KOP 1, given the viewing distance and dynamic views from a moving vehicle. It is anticipated that project components would attract attention and introduce elements that would be visually apparent and create moderate contrast compared with other features in the landscape during intermittent and short-duration views, based on the travel speed along NM-14 of 55 miles per hour (mph).

### **KOP 2—New Mexico State Route 14 / Turquoise Trail**

The solar arrays would be visible to the west from the road where not screened by vegetation, at a distance of approximately 1.7 miles. The solar arrays would create visual contrast through their flat, geometric form, massing, and light to dark gray tones, and slightly reflective surfaces. They would introduce new features to the landscape and attract attention from portions of NM-14 where roadside vegetation is open, and the elevated (superior) position of viewers along the highway would provide views across the landscape to the west. The transmission gen-tie would not be perceivable from KOP 2, given the viewing distance and dynamic views from a moving vehicle. It is anticipated that project components would attract attention and introduce elements that would be visually conspicuous and create moderate contrast compared with other features in the landscape during intermittent and short-duration views, based on the travel speed along NM-14 of 55 mph.

### **KOP 3—Los Duendes Trail**

The solar arrays would be visible at a distance of 3.5 miles from this recreational trail where not screened by foreground vegetation or terrain. The solar arrays would create visual contrast through their flat, geometric form and massing, light to dark gray tones, and slightly reflective surfaces, and would introduce new features to the landscape and begin to attract attention from this location. The project would be seen in the view toward Placer Mountain in the background, increasing the likelihood of viewers noticing its components in the landscape. The transmission gen-tie would be perceivable, but at a distance of 2.75 miles, and it would be similar in form, line, color, and texture to the existing transmission line infrastructure visible from this location. Therefore, it is anticipated that project components would begin to attract attention and introduce elements/patterns that would be visually apparent and create low-moderate contrast, compared with other features in the landscape during moderate-duration views, considering hikers on the recreational trail.

## **KOP 4—La Cantera**

The solar arrays would be visible from this residential road where not screened by roadside vegetation. The solar arrays would create visual contrast through their flat, geometric form, massing, dark to medium gray tones, and slightly reflective surfaces and would introduce new features to the landscape and begin to attract attention from this location. The transmission gen-tie would be perceivable but would be similar in form, line, color, and texture to the existing transmission line infrastructure it would parallel. Therefore, it is anticipated that the project components would attract attention and introduce elements/patterns that would be visually apparent and create moderate contrast compared with other features in the landscape, especially considering KOP 4 represents residential views of long duration.

## **RECOMMENDED MITIGATION MEASURES**

The following mitigation measures are recommended for the project to decrease contrast and adverse visual effects on the landscape and to viewers.

- Native vegetative screening may be effective in reducing (but not eliminating) areas of extensive visibility of the solar arrays as viewed from locations along NM-14. However, potential vegetation installed along the solar arrays, specifically the eastern perimeter to interrupt views looking west from NM-14, would need to reach sufficient height to overcome the elevated (or superior) position of viewers along the highway. It is recommended a landscape designer or landscape architect familiar with the region's native and naturalized plant material be involved in developing an effective mitigation planting design to mimic the scattered and dispersed natural pattern of existing vegetation. Even with the addition of vegetative screening adjacent to the solar arrays, however, the project would likely remain partially visible from portions of NM-14 and elevated areas, including residences, due to the viewing angles resulting from elevation/topography.
- Although not specifically identified in this study due to viewing distance, light pollution from the project could create negative visual effects, particularly from residential viewers with long-duration views. Project lighting, such as within the proposed substation and BESS facility, should be of minimum intensity as required for safety and security, and site lighting should be fully shielded and equipped with motion sensors to the extent feasible.

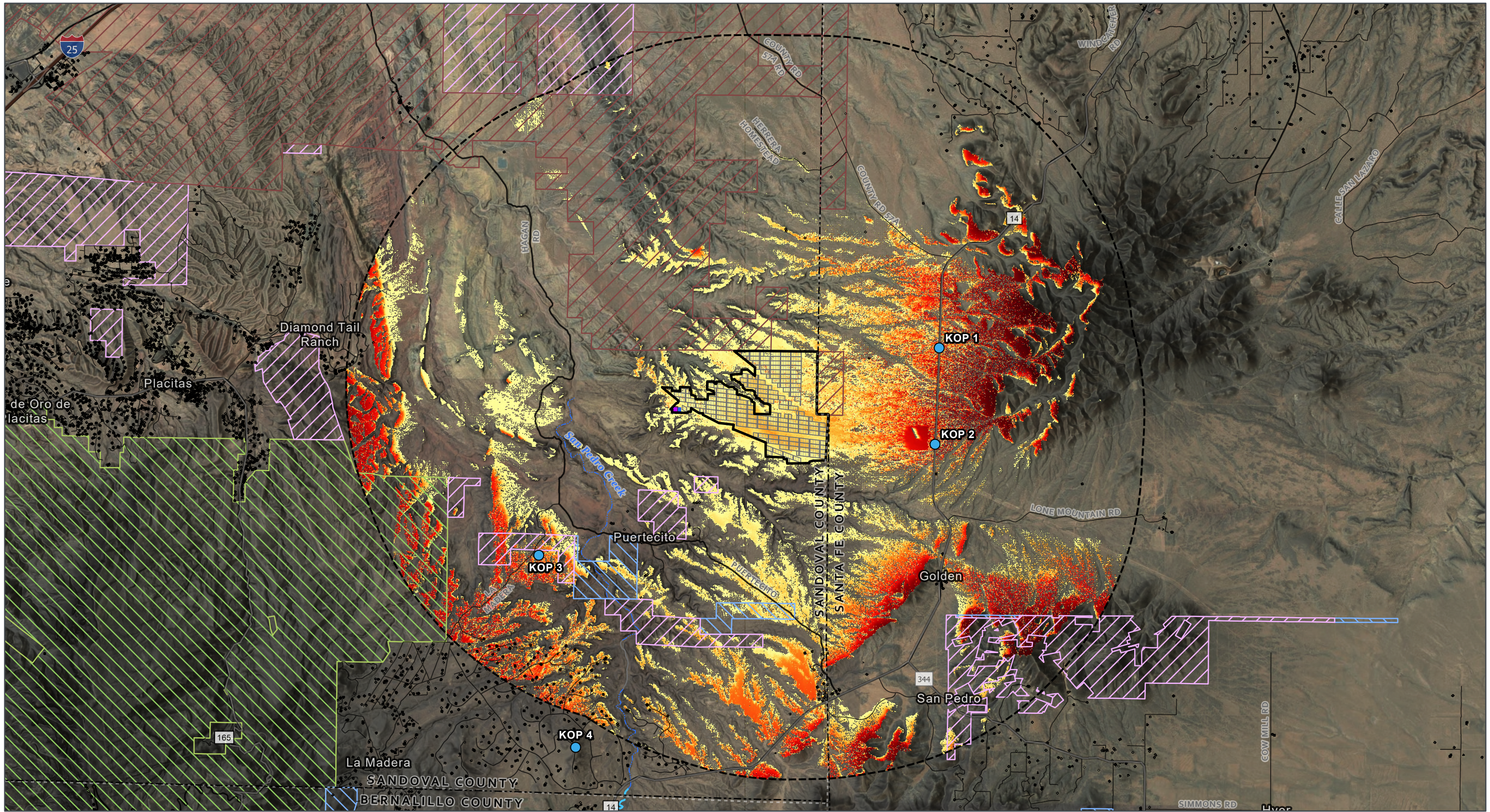
## LITERATURE CITED

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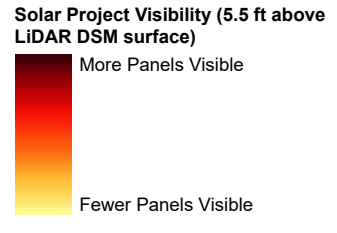
# **ATTACHMENT 1:**

## **VIEWSHED ANALYSIS**

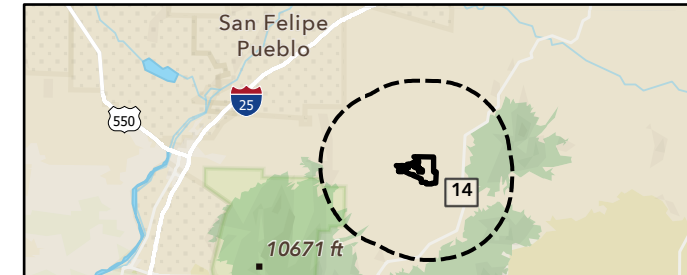




- Project Area
- Analysis Area (5 Mile Buffer from Project Area)
- Key Observation Point (KOP)
- BESS Equipment
- Solar Panel Arrays
- Substation



- BLM NM Surface Ownership**
- Bureau of Land Management
  - State
  - Tribal
  - Forest Service
  - Existing Structures/Residences



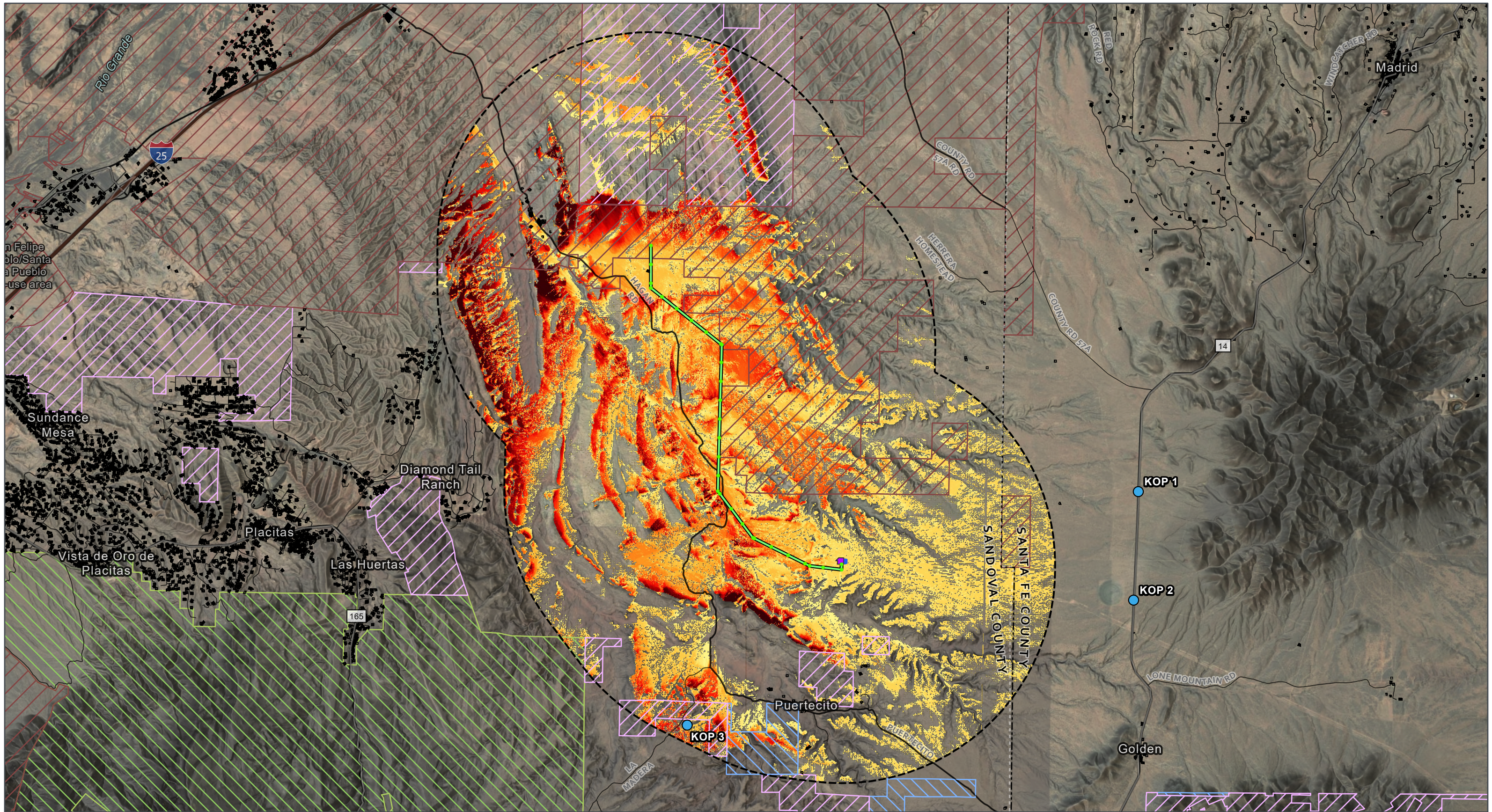
Sandoval County & Santa Fe County, NM  
 NAD 1983 UTM Zone 13N  
 35.3059°N 106.2692°W

0 0.5 1 1.5 Miles  
 0 0.8 1.6 2.4 Kilometers

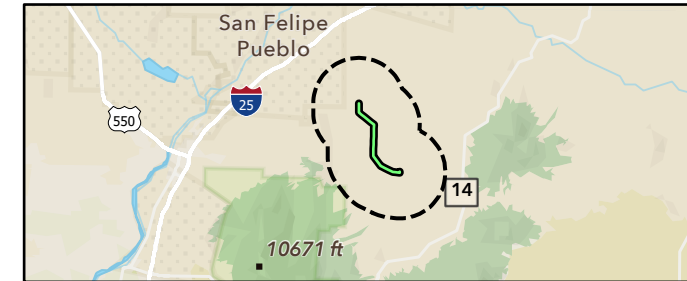
Base Map: Esri ArcGIS Online, accessed December 2024  
 Updated: 12/4/2024  
 Project No. 94268  
 Layout: 94268DiamondTailSolar3mileSolarVisibilityLiDarViewshed  
 Aprx: P0094268\_diamondTailSolar\_SolarArray

1:90,000





- Proposed Gen-tie
  - Analysis Area (3 Mile Buffer from Gen-tie Alignment)
  - Key Observation Point (KOP)
  - BESS Equipment
  - Substation
- Gen-tie Visibility (5.5 ft above LiDAR DSM surface)**
- More Visible
Less Visible
- BLM NM Surface Ownership**
- Bureau of Land Management
  - State
  - Tribal
  - Forest Service
  - Existing Structures/Residences



Sandoval County & Santa Fe County, NM  
 NAD 1983 UTM Zone 13N  
 35.3362°N 106.3128°W

0 0.5 1 Miles

0 800 1,600 Meters

N

1:80,000

Base Map: Esri ArcGIS Online, accessed December 2024  
 Updated: 12/4/2024  
 Project No. 94268  
 Layout: 94268DiamondTailSolar3mileSolarVisibilityLiDarViewshed  
 Aprx: P0094268\_diamondTailSolar\_Gentie



**ATTACHMENT 2:**

**PHOTO SIMULATIONS**



## Sun and Weather



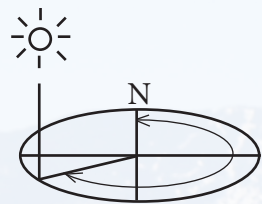
Date: **11-12-24**  
 Photo Time: **2:00 pm**

### Visibility:



**Air Quality: Good**

Sun Azimuth (degrees): **200.04**



Sun Angle (degrees): **34.45**

Lighting Angle on Project: **Side**

Wind: **5 mph**

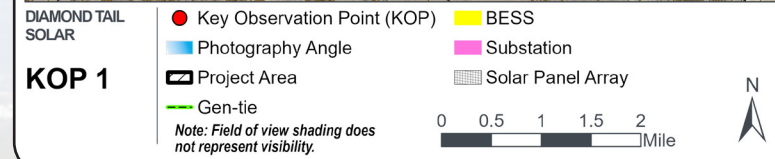
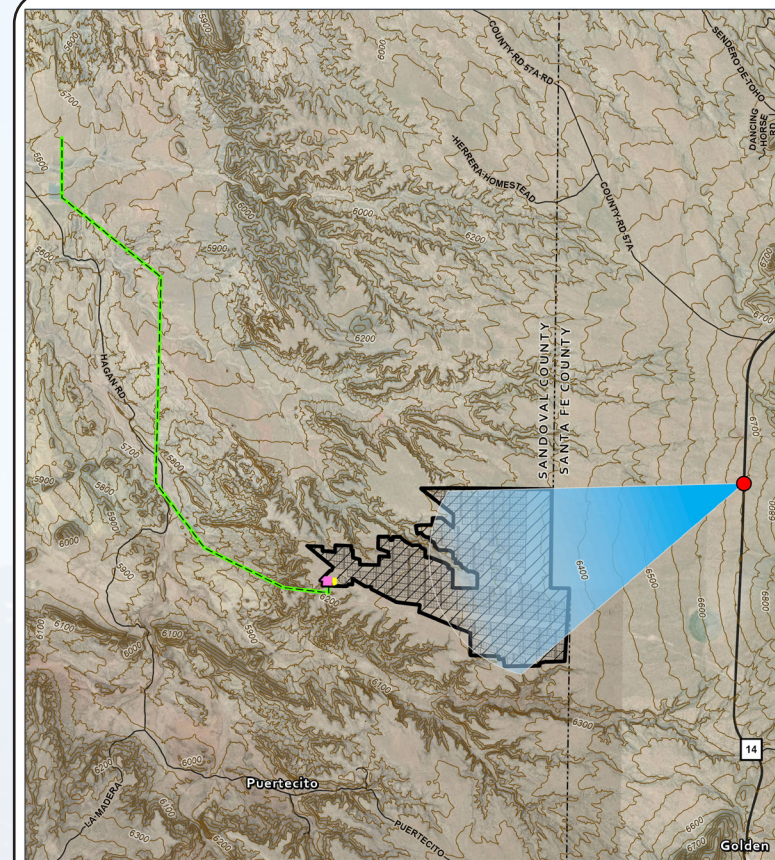
Cloud Cover: **20 %**

Temperature ( °F): **60° F**

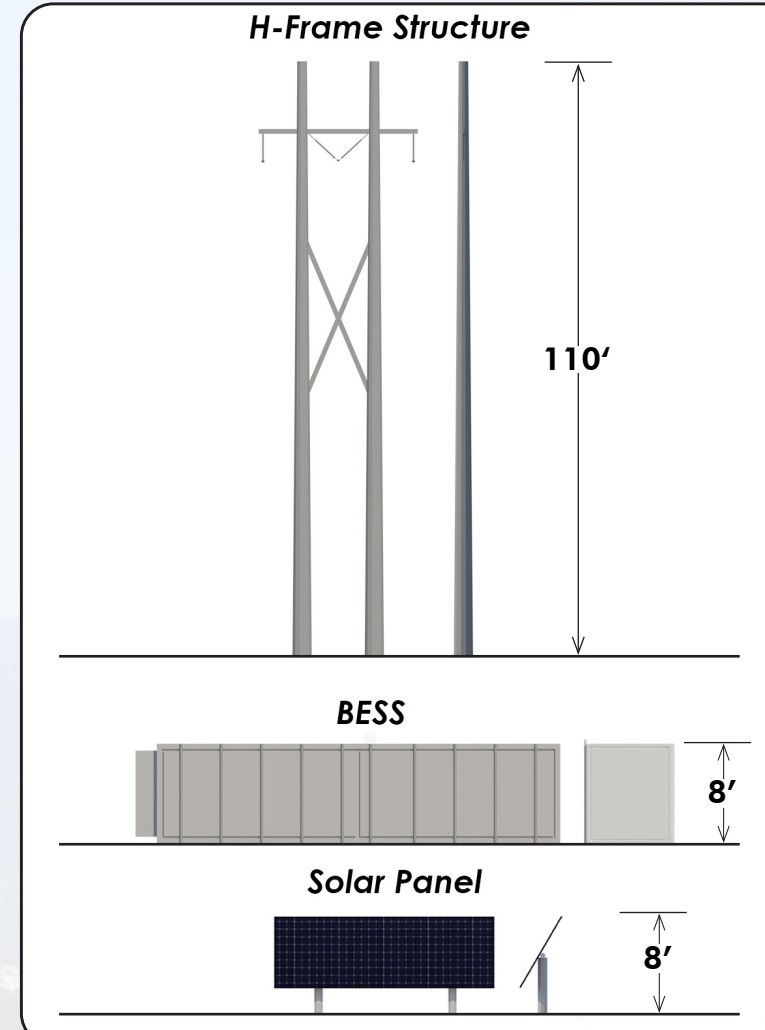
Panels are facing west to reflect afternoon conditions.

*Simulation was prepared using information provided by client, "Site Plan Development Plan Diamond Tail" dated November 5, 2024. Locations, colors, and heights may vary based on final engineering and design.*

## Diamond Tail Solar Energy Project



**Project Location**



**Structure Diagram**

## KOP 1 - New Mexico State Route 14 - Turquoise Trail

Base Photographic Documentation

Latitude, Longitude (degrees): **35.32008, -106.21507**

Viewpoint Elevation (feet): **6,725**

Camera Height (meters): **1.5**

Camera Heading (degrees): **250**

Camera Make & Model: **Canon EOS 5D Mark IV**

Camera Sensor Size (mm): **36 x 24 Full Frame**

Lens Make & Model: **AF-P Nikkor**

Lens Focal Length (mm): **50**

Image Size (pixels): **6720 x 4480**

Approximate Distance to Nearest Solar Panels in Simulation: **2.2 miles**

Approximate Distance to Nearest Gen-Tie in Simulation: **4.3 miles**

*Viewing Instructions: Printed at 100% the resulting simulation is 16 inches wide by 10 inches high. At this size and focal length, the simulation should be viewed at arms length (24 inches). If viewed on a computer monitor, scale should be 100%.*







**KOP 1: View from New Mexico State Route 14 - Turquoise Trail looking southwest - Existing Condition**



Panels facing west to reflect afternoon conditions.



**KOP 1: View from New Mexico State Route 14 - Turquoise Trail looking southwest - Simulated Condition**



Panels facing east to reflect morning conditions.



**KOP 1: View from New Mexico State Route 14 - Turquoise Trail looking southwest - Simulated Condition**

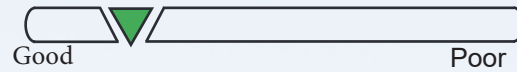


## Sun and Weather



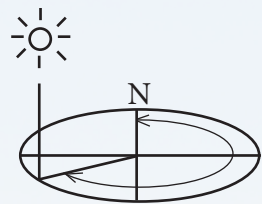
Date: **11-12-24**  
Photo Time: **2:15 pm**

### Visibility:



**Air Quality: Good**

Sun Azimuth (degrees): **204.1**



Sun Angle (degrees): **33.3**

Lighting Angle on Project: **Side**

Wind: **5 mph**

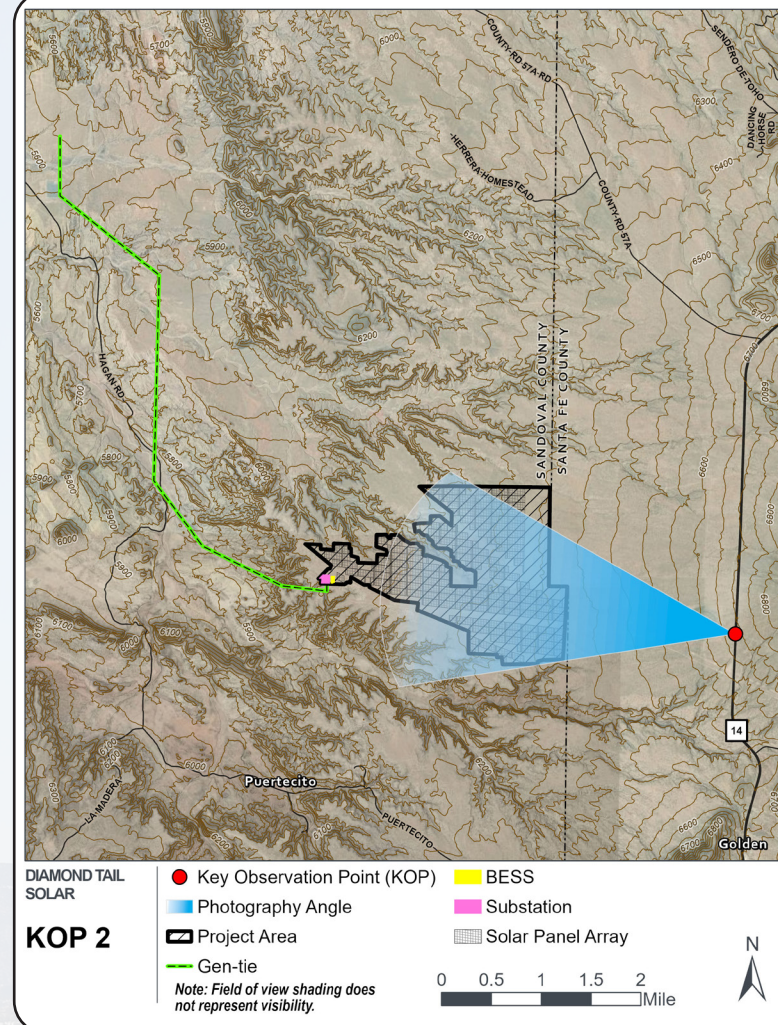
Cloud Cover: **20 %**

Temperature ( °F): **60° F**

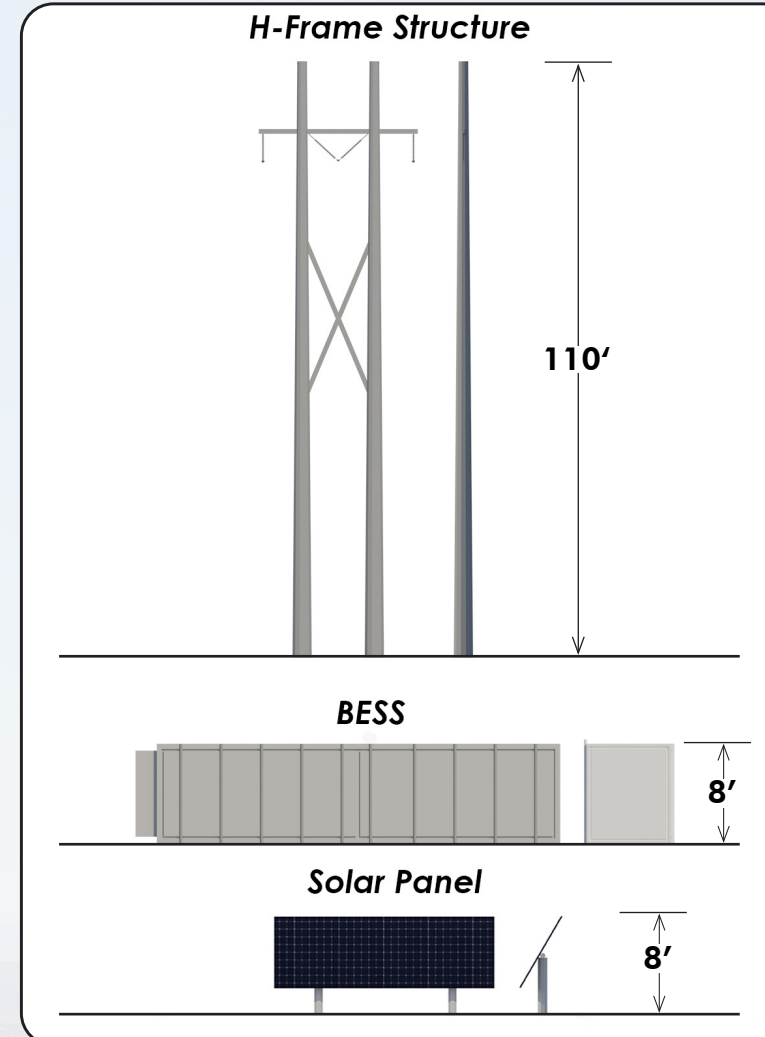
Panels are facing west to reflect afternoon conditions.

Simulation was prepared using information provided by client, "Site Plan Development Plan Diamond Tail" dated November 5, 2024. Locations, colors, and heights may vary based on final engineering and design.

## Diamond Tail Solar Energy Project



**Project Location**



**Structure Diagram**



## KOP 2 - New Mexico State Route 14 - Turquoise Trail

Base Photographic Documentation

Latitude, Longitude (degrees): **35.297945, -106.215907**

Viewpoint Elevation (feet): **6,725**

Camera Height (meters): **1.5**

Camera Heading (degrees): **280**

Camera Make & Model: **Canon EOS 5D Mark IV**

Camera Sensor Size (mm): **36 x 24 Full Frame**

Lens Make & Model: **AF-P Nikkor**

Lens Focal Length (mm): **50**

Image Size (pixels): **6720 x 4480**

Approximate Distance to Nearest Solar Panels in Simulation: **1.7 miles**

Approximate Distance to Nearest Gen-Tie in Simulation: **4.1 miles**

Viewing Instructions: Printed at 100% the resulting simulation is 16 inches wide by 10 inches high. At this size and focal length, the simulation should be viewed at arms length (24 inches). If viewed on a computer monitor, scale should be 100%.

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**KOP 2: View from New Mexico State Route 14 - Turquoise Trail looking west - Existing Condition**



Panels facing west to reflect afternoon conditions.



**KOP 2: View from New Mexico State Route 14 - Turquoise Trail looking west - Simulated Condition**



Panels facing east to reflect morning conditions.



**KOP 2: View from New Mexico State Route 14 - Turquoise Trail looking west - Simulated Condition**

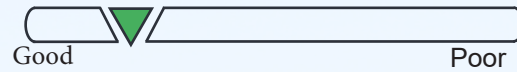


## Sun and Weather



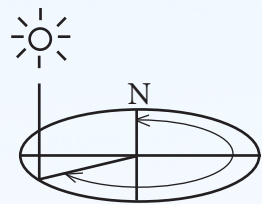
Date: **11-12-24**  
 Photo Time: **3:40 pm**

### Visibility:



**Air Quality: Good**

Sun Azimuth (degrees): **224.79**



Sun Angle (degrees): **34.87**

Lighting Angle on Project: **Side**

Wind: **5 mph**

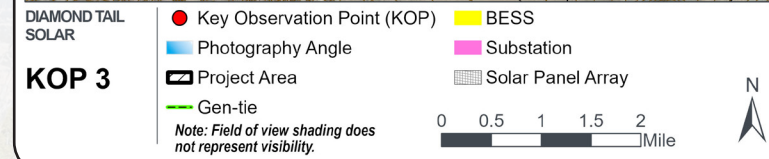
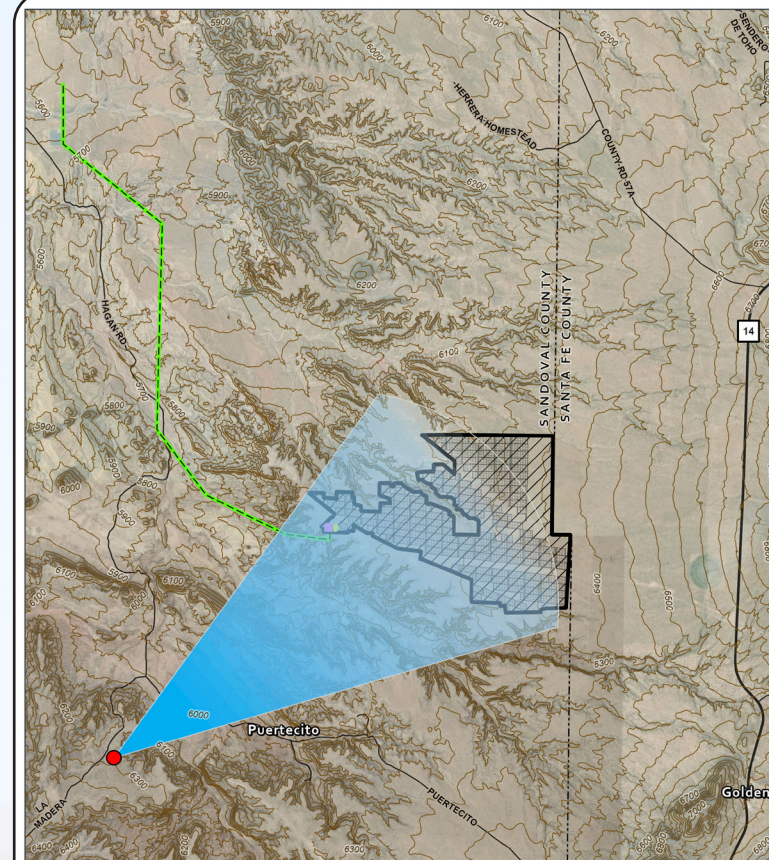
Cloud Cover: **20 %**

Temperature (°F): **60° F**

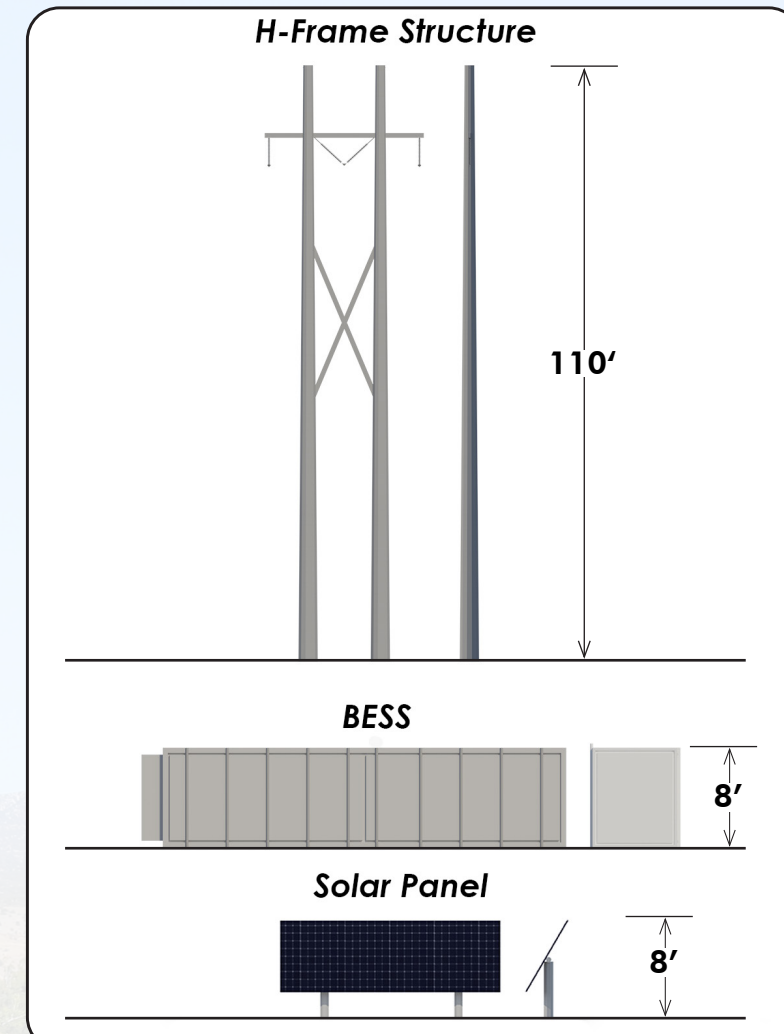
Panels are facing west to reflect afternoon conditions.

*Simulation was prepared using information provided by client, "Site Plan Development Plan Diamond Tail" dated November 5, 2024. Locations, colors, and heights may vary based on final engineering and design.*

## Diamond Tail Solar Energy Project



**Project Location**



**Structure Diagram**

## KOP 3 - Golden Open Space Los Duendes Trail

Base Photographic Documentation

Latitude, Longitude (degrees): **35.271298, -106.326458**

Viewpoint Elevation (feet): **6,260**

Camera Height (meters): **1.5**

Camera Heading (degrees): **55**

Camera Make & Model: **Canon EOS 5D Mark IV**

Camera Sensor Size (mm): **36 x 24 Full Frame**

Lens Make & Model: **AF-P Nikkor**

Lens Focal Length (mm): **50**

Image Size (pixels): **6720 x 4480**

Approximate Distance to Nearest Solar Panels in Simulation: **3.3 miles**

Approximate Distance to Nearest Gen-Tie in Simulation: **2.8 miles**

*Viewing Instructions: Printed at 100% the resulting simulation is 16 inches wide by 10 inches high. At this size and focal length, the simulation should be viewed at arms length (24 inches). If viewed on a computer monitor, scale should be 100%.*



**Extent of Single Frame Simulation**







**KOP 3: View from Golden Open Space Los Duendes Trail looking northeast - Existing Condition**





**KOP 3: View from Golden Open Space Los Duendes Trail looking northeast - Simulated Condition**

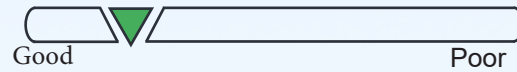


## Sun and Weather



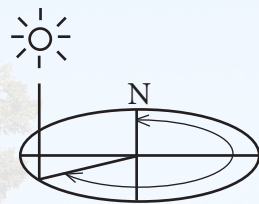
Date: **11-12-24**  
Photo Time: **12:50 pm**

Visibility:



**Air Quality: Good**

Sun Azimuth (degrees): **179.44**



Sun Angle (degrees): **36.94**

Lighting Angle on Project: **Side**

Wind: **5 mph**

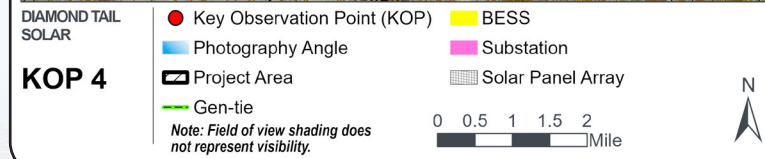
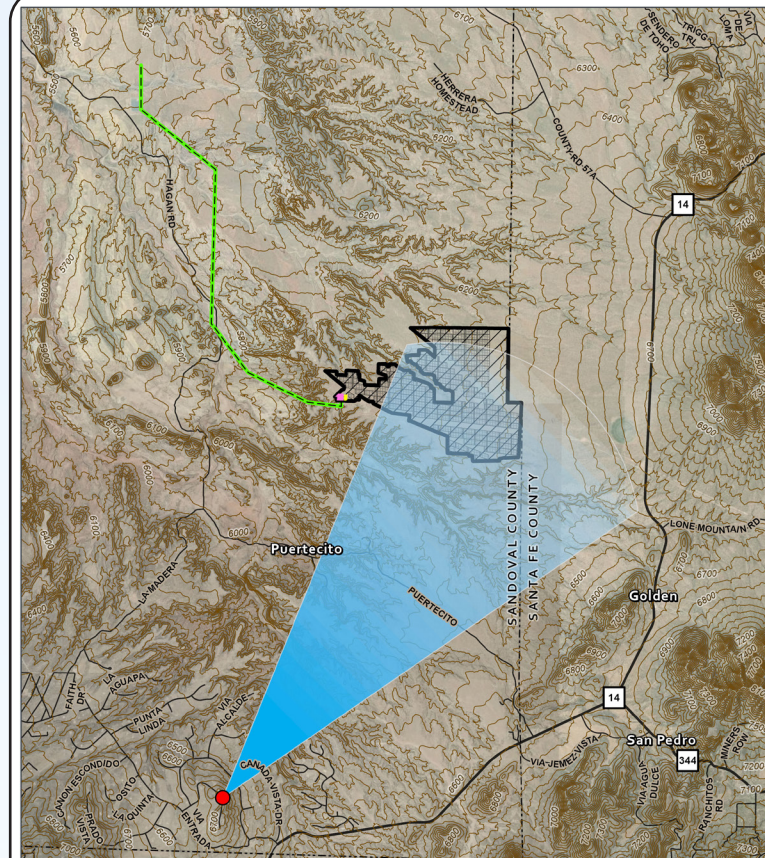
Cloud Cover: **20 %**

Temperature (°F): **60° F**

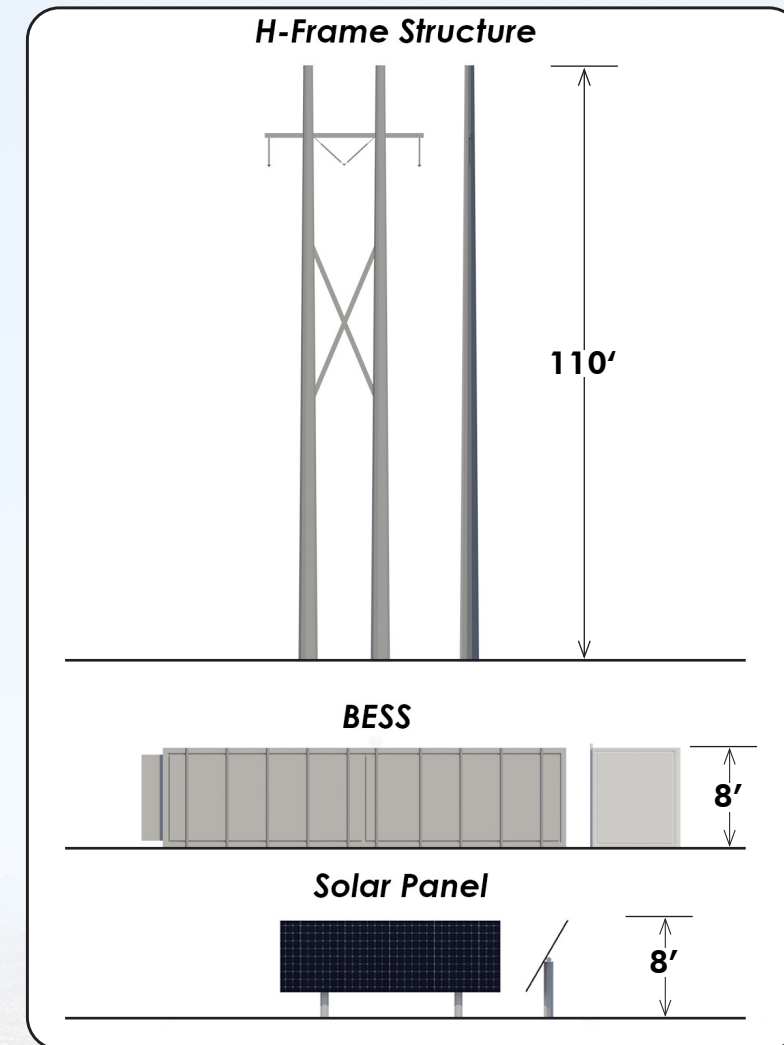
Panels are facing west to reflect afternoon conditions.

*Simulation was prepared using information provided by client, "Site Plan Development Plan Diamond Tail" dated November 5, 2024. Locations, colors, and heights may vary based on final engineering and design.*

## Diamond Tail Solar Energy Project



**Project Location**



**Structure Diagram**



## KOP 4 - La Cantera

Base Photographic Documentation

Latitude, Longitude (degrees): **35.227302, -106.315428**

Viewpoint Elevation (feet): **6,750**

Camera Height (meters): **1.5**

Camera Heading (degrees): **40**

Camera Make & Model: **Canon EOS 5D Mark IV**

Camera Sensor Size (mm): **36 x 24 Full Frame**

Lens Make & Model: **AF-P Nikkor**

Lens Focal Length (mm): **50**

Image Size (pixels): **6720 x 4480**

Approximate Distance to Nearest Solar Panels in Simulation: **5.6 miles**

Approximate Distance to Nearest Gen-Tie in Simulation: **Gen-Tie is not visible in simulation**

*Viewing Instructions: Printed at 100% the resulting simulation is 16 inches wide by 10 inches high. At this size and focal length, the simulation should be viewed at arms length (24 inches). If viewed on a computer monitor, scale should be 100%.*







**KOP 4: View from La Cantera looking northeast - Existing Condition**





**KOP 4: View from La Cantera looking northeast - Simulated Condition**