ZETA SOLAR AND BATTERY ENERGY STORAGE SYSTEM PROJECT

Visual Resources Assessment

July 10, 2024

Prepared for:

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1 Introduction

This visual resources assessment evaluates potential effects on visual quality from development of the Zeta Solar and Battery Energy Storage System Project (project). Visual resources are elements of a natural or built environment with aesthetic value based on visual quality and character. They may be formally identified by local, state, or federal governments or recognized by other institutions and organizations. They may also be components of a natural or built environment that contribute to a memorable or distinct landscape. This assessment evaluates the project's potential impacts on visual resources based on the project's physical characteristics and potential visibility and the degree to which the project could alter existing visual quality and/or visual character.

1.1 Project Summary

Longroad Development Company, LLC, (Applicant) proposes to construct, operate, maintain and decommission a photovoltaic (PV) solar power generation facility and battery energy storage system (BESS) in unincorporated Merced County, California, about 9 miles southwest of Los Banos (Figure 1) (all figures are located in Appendix A). The project would generate approximately 75 megawatts (MW) alternating current (AC) and include a storage capacity of four hours of 75 MW AC. The project site would be about 675 acres plus an additional 1,700-foot-long generation-tie line (gen-tie line) to deliver power to the Mercy Springs Substation, which is owned and operated by Pacific Gas and Electric Company.

The project generation facility would occupy all or portions of three parcels identified by Merced County as assessor's parcel numbers (APN) 090-130-018, and 090-130-044, and 090-130-060. The gen-tie line would extend north through APN 088-180-063 to the point of interconnection in APN 090-103-059. The project site consists of fallow agricultural lands. Land uses surrounding the project site consist of mostly undeveloped agricultural lands to the north, south, and east, and a small developed (0.15 acre) site. Poleline Road abuts the southwestern project site boundary. The California Aqueduct and U.S. Interstate 5 (I-5) run parallel to the southwest project boundary approximately 300 feet and 800 feet to the west, respectively. The Vega Solar Project site and Dos Amigos Pumping Plant are located 1,700 feet north and 0.5 mile northwest of the Project site, respectively.

The Project would include a solar array area, covering approximately 518.5 acres, surrounded by an up to 8-foot-tall chain-link security fence. Solar PV modules mounted in rows on single-axis trackers and racking equipment would occupy most of the Project site. The Project would also include an underground DC collector system, up to 21 electrical equipment pads with inverters and transformers within the PV facility, an approximately 15-acre BESS with regularly spaced battery units and 70 electrical equipment pads, an underground or above-ground AC collector system, an approximately 5-acre substation, an approximately 1,700-foot-long 70 kilovolt (kV) gen-tie line, an approximately 0.8-acre operation and maintenance (O&M) area including an O&M office and adjacent O&M warehouse, and access roads. As part of construction, an approximately 10-acre staging area/laydown yard would be located within the Project site and accessed via internal graveled or compacted earth access roads.

As part of the interconnection process, PG&E would install gen-tie line terminal equipment and the termination of the Project's fiber optic line and install one circuit breaker to an existing 70 kV ring bus at the Mercy Springs Switching Station.

Construction of the Project facilities would occur over 24 consecutive months. The Project would operate year-round to generate electricity from the PV facilities during daylight hours and dispatch additional electricity during either daylight or non-daylight hours, depending on the application of the BESS portion of the Project.

2 Existing Conditions

2.1 Existing Setting

The project site is bounded to the north by agricultural land and to the west by a road called First Lift Canal. Poleline Road and I-5 run parallel to each other to the southwest of the project site. Grazing foothill pasture grassland is beyond I-5. The project site is bounded to the east by an unnamed dirt/gravel road. The valley landscape consists of agricultural land and sparse rural development, as well as existing utility-scale solar energy facilities and associated infrastructure. The proposed gen-tie line would terminate to the north at the Mercy Springs Substation, located approximately 0.25 mile north of the Project site. The Vega Solar Project and Dos Amigos Pumping Plant are located 1,200 feet north and 0.5 mile northwest, respectively. Los Banos is the closest concentrated urban development.

Elevations within the project site range from approximately 200 to 320 feet above mean sea level. The project site is located almost entirely within fallow agricultural fields which are grazed for weed control and where vegetation has otherwise been highly disturbed by human activity, such as clearing, grading, and extensive alteration of hydrology. Developed areas make up the remaining portion of the project site and include unvegetated areas, such as unpaved roads, paved roads, sections of riprap, and a small gravel lot in the southeast corner with a steel communications tower.

Potential viewers of the project include motorists traveling northbound or southbound on I-5 or along nearby local roads and residents or workers that live in the vicinity of the project. Views of the area from along I-5 are expansive and generally characterized by the sparsely developed agricultural landscape. Transmission lines and distribution infrastructure are also visible to motorists traveling north or south on I-5 and from locations where they may stop along the freeway corridor. The project site is located approximately 0.5 mile east of the Dos Amigos Pump Station Vista Point, a designated vista point along northbound I-5.

2.2 Regulatory Setting

Visual resources identified in plans, policies, or other applicable regulations that could be affected by the project are discussed below. This is not a complete list of every law, ordinance, regulation, or other standard related to the project or project site.

2.2.1 CALIFORNIA ENVIRONMENTAL QUALITY ACT

Merced County is responsible for seeing that projects within their jurisdiction meet the requirements of the California Environmental Quality Act (CEQA). Section 5 of this report includes a preliminary analysis of potential visual impacts in accordance with the CEQA Appendix G checklist.

2.2.2 CALIFORNIA STATE SCENIC HIGHWAY PROGRAM

The California Scenic Highway Program was created by the Legislature in 1963 and is managed by the Landscape Architecture Division of the California Department of Transportation (Caltrans). Its purpose is to protect and enhance the natural scenic beauty of California highways and adjacent corridors through special conservation treatment. A highway may be designated scenic depending on how much of the natural landscape can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes upon travelers' enjoyment of the view. The portion of I-5 near the project site is not designated as a California State Scenic Highway (Caltrans 2022).

2.2.3 MERCED COUNTY GENERAL PLAN

Scenic resources identified in the Merced County General Plan Natural Resources element include rural and agricultural landscapes within the County, scenic vistas such as the scenic views of the Coastal and Sierra Nevada ranges, river corridors, a segment of State Route 152 between I-5 and San Benito County, and a segment of I-5 between State Route 152 and Stanislaus County. Approximately 95 percent of County land is designated rural and agricultural (Merced County 2013), and the project site is located within a rural and agricultural landscape.

Merced County General Plan Natural Resources Element policies applicable to the project include:

- Goal NR-2. Provide adequate and efficient energy supplies by increasing renewable energy production and energy conservation.
    - Policy NR-2.6: Open Space Impacts. Work with public agencies and private energy providers to ensure that energy projects avoid or minimize impacts to open space, natural resources, and productive agricultural land.
- Goal NR-4 Protect scenic resources and vistas
    - Policy NR-4.1: Scenic Resource Preservation. Promote the preservation of agricultural land, ranch land, and other open space areas as a means of protecting the County's scenic resources.

3 Methods

A comparison of the project site's existing conditions and the change to the landscape that would result from implementation of the project is based on visual simulations. As a part of this process, Stantec

Consulting Services Inc. (Stantec) visual resources specialists reviewed aerial imagery to identify where the project could be visible from visually sensitive areas and selected preliminary viewpoints for site photography. Stantec conducted field surveys on September 14, 2022, to photo-document current visual conditions and views toward the project site. A representative subset of photographed viewpoints was selected for use as Key Observation Points (KOPs), which collectively serve as the basis for this assessment. The KOP locations are shows in Figure 1, included in Appendix A. Assessments of existing visual conditions were made based on professional judgment and considered sensitive receptors and sensitive viewing areas in the lands surrounding the project site.

The view from each KOP was photographed using a 35-millimeter, 53-megapixel, full-frame, single lens reflex camera equipped with a 50-millimeter fixed focal length lens. This configuration is the industry-accepted standard for approximating the field of vision in a static view of the human eye. The camera positioning was determined with a sub-meter, differentially corrected global positioning system. The camera was positioned at eye-level for each photograph.

The site photos were used to generate a rendering of the existing conditions and a proposed visualization of the implemented project. The visual simulations provide clear before and after images of the location, scale, and visual appearance of the features affected by and associated with the project. The simulations were developed through an objective analytical and computer-modeling process (i.e., a 3-dimensional computer model was created using a combination of AutoCAD files and geographic information system layers and exported to Autodesk's 3-dimensional Studio Max for production). Design data—consisting of, as available, engineering drawings, elevations, site and topographical contour plans, concept diagrams, and reference pictures—were used as a platform from which digital models were created. In cases where detailed design data were unavailable, more general descriptions about facilities and their locations were used to prepare the digital models. Existing and simulated views for each of the three KOPs are shown in Figures 2 – 4 included in Appendix A.

Rating sheets identifying contrast between existing and proposed conditions as seen from each KOP are included in Appendix B. Landscape components related to visual character and quality are based on selected concepts from the Federal Highway Administration (FHWA) Visual Impact Assessment (VIA) for Highway Projects method (FHWA 2015). The FHWA method is an established, defensible approach, appropriate for use in assessments in which most or all of the assessed views are from roadways.

Relying on observations during site photography and the resulting images of views toward the project, visual resources specialists evaluated the existing visual character related to natural and cultural (or human made / influenced) environments. Visual quality of existing conditions for each KOP was assigned a rating based on a scale ranging from "very low" to "very high" for the natural harmony, cultural order, overall coherence, and landscape composition and vividness evident in each view. This assessment was replicated for the simulated images showing the project as it would be seen from each KOP. Stantec established a visual quality rating for each view showing proposed conditions. The difference in visual quality rating for each view between existing and proposed conditions established the degree of contrast in visual quality from the project. Potential sources of contrast related to visual character—described in terms of form, line, color, and texture—were also identified and are discussed as appropriate.

4 Description of Potential Visual Effects

This section describes views from each KOP, first under existing conditions, and then with the project simulated. The visual simulations illustrate the location, scale, and conceptual appearance of the project as seen from each KOP. These visual simulations allow for comparison of pre-project and post-project conditions.

4.1 Key Observation Point 1: Northbound Interstate 5

4.1.1 EXISTING VIEW

KOP 1 is located within the northbound lane of I-5, 0.2 mile west of the project site. The view from KOP 1 is to the north-northeast toward the project and is representative of views from the freeway in which the project would appear closest to viewers (Figure 2a). The existing visual quality of the view from KOP 1 is moderately low. It is characterized by mostly fallow agricultural terrain in the foreground (i.e., the area visible out to 0.25 mile from the KOP) and middle ground (i.e., the area visible between 0.25 mile and 3 miles from the KOP). There are some existing distant linear developments and agricultural structures in the middle ground and background (i.e., beyond 3 miles from the KOP). A majority of the area visible from KOP 1 is beige and tan with a fine to medium texture of low-profile sparse green vegetation visible in the foreground and middle ground and an additional limited view of linear gray and green structures and agriculture in the background.

4.1.2 VIEW OF THE PROJECT

Figure 2b shows the view from KOP 1 with the project simulated. With addition of the project, solar panels would be visible across the view in the middle ground. While appearing similar in form and color to the existing solar panels in the background, a greater portion of the landscape would become visibly mechanized in appearance, with additional lands in view appearing occupied by renewable energy development instead of appearing in their current, generally natural state. Contrast between existing and proposed conditions would be further evident where the color throughout the view's middle ground would appear darker and textured by the repeated rows of mounted panels. Viewers typically traveling at high speeds along this segment of northbound I-5 would experience visibility of the project at close proximity for a relatively short period of time. In north- and east-facing views from points further to the south from this KOP, the project would be seen as a portion of a broader, mostly fallow agricultural landscape. The visual quality of the view from KOP 1 with the project would remain moderately low.

4.2 Key Observation Point 2: Dos Amigos Pump Station Vista Point

4.2.1 EXISTING VIEW

KOP 2 is located at a designated Caltrans vista point at Dos Amigos Pump Station Vista Point along northbound I-5, approximately 0.5 mile west of the Project site. This location affords a stationary view to the pump station to the northeast, as well as a view to the east-southeast toward the Project site (Figure 3a). The existing visual quality of the view from KOP 2 is moderately low. It is characterized by the visual dominance of the California Aqueduct, a linear feature visible in the foreground set against a backdrop containing predominantly agricultural lands which contain relatively few structures. The dominant colors are the blue and gray of the aqueduct, and the beige, tan, and green hues of the valley and agricultural land beyond the aqueduct. The view's discernible texture varies and ranges from fine to medium, from the aqueduct's water surface and concrete to the valley's flat, grassy terrain and orchards and other vegetation further away.

4.2.2 VIEW OF THE PROJECT

Figure 3b shows the view from KOP 2 with the project simulated. Viewers typically stopped at the vista point would experience the project at relatively close proximity for an extended period of time. With addition of the project, solar panels would be visible across the view in the middle ground. From this vantage point, the project would appear rectilinear, darker, and texturally different from the fallowed lands that comprise the project site and the orchards beyond the project site, but similar in form and linear character. The project would appear to be generally absorbed into the existing agricultural landscape. Along the closer side of the Project site, partially obscured by the aqueduct levee, the upper portions of the BESS structures and the O&M buildings would be clearly visible, though their position near the front of the view reduces their profile. The visual quality of the view from KOP 2 with the project would remain moderately low.

4.3 Key Observation Point 3: Southbound I-5

4.3.1 EXISTING VIEW

KOP 3 is located on southbound I-5, approximately 0.75 mile northwest of the Project site. The view from KOP 3 is to the southeast and represents elevated views of the project from southbound I-5 (Figure 4a). The existing visual quality from KOP 3 is low. It is characterized by the linear forms of the I-5 corridor and transmission line crossing in the immediate foreground, beyond which a number of disparate built features appear in front of a more distant, mostly flat agricultural terrain. The variety of components results in an incoherent view, with linear features (i.e., I-5, transmission lines, and the California Aqueduct), strong vertical features (i.e., a prominent water tower near the center of the view), and other utility infrastructure (i.e., Dos Amigos Pumping Plant facilities, Mercy Springs Substation, and the Vega Solar Project) visible. From this vantage point, the valley landscape beyond and alongside these features appears relatively flat, although some sparse scrub vegetation and orchards are discernible. The

dominant colors are the tans and beiges of the valley, with light grays and tans of the shoulder of I-5 and the blue and gray from the California Aqueduct in the foreground and some greens from vegetation and agriculture in the background.

4.3.2 VIEW OF THE PROJECT

Figure 4b shows the view from KOP 3 with the project simulated. With the project, the view would include the dark, flat plane of the solar arrays; the vertical forms of its utility infrastructure, including evenly spaced poles progressing northward from the project site to its point of interconnection; and its BESS components, visible as a cluster of low, white rectilinear structures. The expansion of the area occupied by solar panels would appear consistent with the visual character of the existing solar panels that are set within the valley landscape, and their dark gray color would relate to the freeway corridor while contrasting with the project site's more immediate surroundings. Viewers typically traveling at a high speed along this segment of southbound I-5 would notice the project, but it would likely be viewed as an expansion of an already existing area of utility infrastructure, encroaching into a currently fallow agricultural portion of the valley. The visual quality of the view from KOP 3 with the project would remain low, with multiple uses and their varying visual characteristics competing for dominance within the view.

5 Impact Analysis

This visual resources assessment will inform the project's eventual evaluation of potential environmental impacts under CEQA. There are four CEQA criteria for Aesthetics. Each is presented here as a question, with preliminary assessments of impact to visual resources provided.

1. Would the project have a substantial adverse effect on a scenic vista?

Less-than-significant impact. Scenic vistas are typically expansive views from elevated areas. They may or may not be part of a designated scenic overlook or other area providing a static vista of a landscape. There are no designated scenic vistas in the project vicinity, though the Dos Amigos Pump Station Vista Point (KOP 2) affords views of water conveyance infrastructure within the broader rural and agricultural landscape identified in the Merced County General Plan Natural Resources Element as a scenic resource. Elevated views of the San Joaquin Valley and the agricultural lands in the middle ground and background from I-5 are represented in KOP 2, which is a sustained view from the Dos Amigos Pump Station Vista Point. From KOP 2, the project site would appear along the valley floor amongst existing solar development and other utility infrastructure. The project would not substantially alter this view from the Dos Amigos Pump Station Vista Point at KOP 2 or any other elevated, expansive view toward San Joaquin Valley. As such, impacts to scenic vistas would be less than significant.

2. Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No Impact. There are no officially designated state scenic highways in the project area. The project site is undeveloped and does not contain historic buildings, trees or rock outcroppings. When viewed from I-5, the project would appear visually consistent with existing solar development in the vicinity. Thus the

project would not substantially damage scenic resources within a state scenic highway. No impact would occur.

3. Would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Less-than-significant impact. The project is located within the San Joaquin Valley in the southern portion of unincorporated Merced County, surrounded mostly by agricultural land. It is bordered on the west by I-5 and grazing foothill pasture beyond I-5. The valley landscape consists of agricultural land and sparse rural development, with some utility-scale solar energy facilities and associated infrastructure. Publicly accessible views toward the project would generally be from I-5 and local roadways adjacent to the broader project footprint (KOP 1 and KOP 3), and from Dos Amigos Pump Station Vista Point (KOP 2). The existing visual quality of views surrounding the project site are low or moderately low.

The project would be most visible to viewers when viewed at eye-level and within proximity, as shown in the simulated view for KOP 1, which shows the project as near as 0.2 mile away. KOP 2 and KOP 3 are located further away from the project compared to KOP 1 (between 0.5 mile and 0.75 mile, respectively) (See Figures 2-4). However, the project would still be visible from further away, appearing as a linear feature or distinct polygon across all or part of the valley floor. In the views from KOPs 1 and 3, the project would appear alongside the developed Vega Solar Project. While appearing similar in form and color to the existing solar panels in the background of the view, a greater portion of the landscape would become visibly mechanized in appearance, with additional lands in view appearing occupied by renewable energy development. However, the project would appear consistent with existing uses and would not substantially degrade the existing visual character or quality of public views.

The project would change the appearance of the site from an area that is currently fallow agricultural lands to an area that is developed with solar facilities. This change would represent a change in the visual character of the site; however, the visual quality of the existing view is low or moderately low and the addition of the project would be viewed within the context of an already existing area of utility infrastructure, encroaching on fallow agricultural land. Therefore, the project would introduce a low degree of change in local visual quality. This impact would be less than significant.

4. Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Less-than-significant impact. The project would not include any source of substantial nighttime lighting. Any lighting required for safety and security within the project area would be shielded and directed away from public rights-of-way. Lighting would be designed to provide the minimum illumination needed to achieve safety and security. There currently is no source of substantial daytime glare within the project site. The project, similar to the nearby Vega Solar Project, would introduce a new potential source of glare from the reflective portions of the solar panel arrays.

A Glare Hazard Analysis was prepared for the project in 2021, which broke the PV array into three separate blocks (Blocks 1-3) to analyze the whole site. Fifteen Observation Points (OPs) on nearby roads, including State Highway 165 and northbound and southbound segments of Interstate 5, were analyzed for glare. In addition, linear route analysis was performed for extended lengths of each of the three road segments (3 miles for State Highway 165 and approximately 5 miles for each Interstate 5 segment). Analysis input parameters included a maximum tracking angle of 60 degrees and use of smooth textured glass with anti-reflective coating (Longroad Energy 2021).

Each block was analyzed four times, for combinations of 5-foot and 9-foot vehicle heights and 6-foot and 12-foot panel heights. No glare was predicted for any observation points or routes for any height combinations for any portion of the blocks that formed the entire project site. (Longroad Energy 2021). Additionally, incorporation of low-reflective materials such as coating on solar panels or galvanized steel on gen-tie structures would help minimize reflectivity and glint or glare associated with the project. Similar to the Vega Solar Project, the project is expected to result in little, if any, glare. Therefore, the project would not create a new source of substantial light or glare in the area that would affect daytime or nighttime views in the area, and impacts would be less than significant.

6 Conclusions

The project would consist of the construction of solar arrays and associated structures within the San Joaquin Valley on lands that are currently fallow agricultural lands in portions of unincorporated Merced County and adjacent to the Vega Solar Project. The project would be visible and identifiable to motorists traveling north or south on I-5 and residents or workers that live in the vicinity of the project or are driving on roads adjacent to the project site. The presence of the project would not result in any substantial decrease in visual quality in publicly accessible views, nor would it significantly alter the visual character of the project site surroundings. This is because this portion of the San Joaquin Valley has been developed with utility-scale solar facilities and other infrastructure related to the California Aqueduct. In views located closer to the project site, the project would appear consistent in form and color to other nearby solar energy developments. Within the broader view, the project would appear consistent with the valley landscape that is characterized by a visual patchwork of various crop lands and existing solar energy and utility development.

7 References

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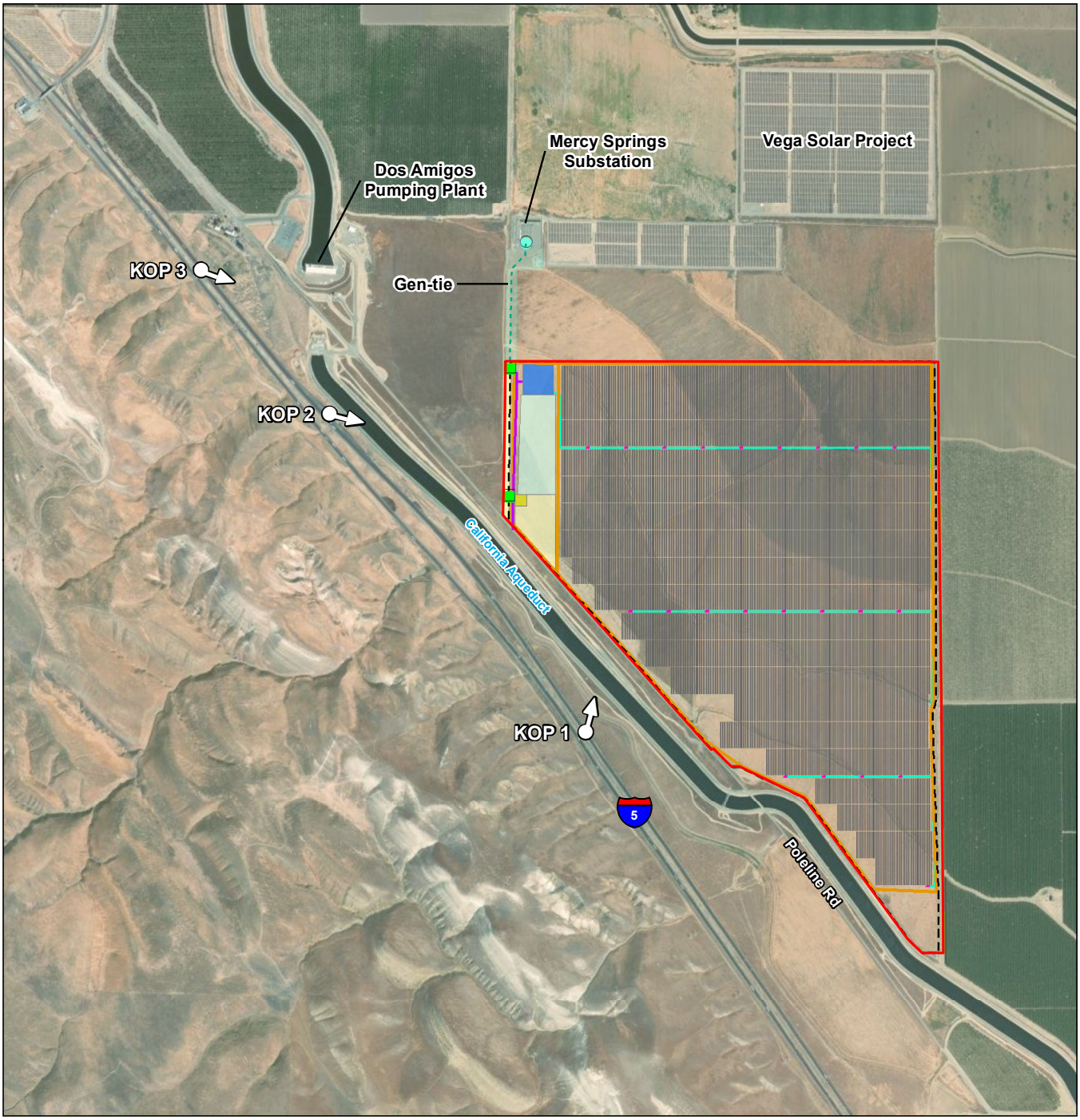
Merced County. 2013. Merced County 2030 General Plan. Available online at: https://www.countyofmerced.com/DocumentCenter/View/6766/2030-Merced-County-General-Plan?bidId=. Accessed October 28, 2022.

Longroad Energy. 2021. Zeta Solar Project Glare Hazard Analysis. PDF. Accessed November 1, 2022.

Appendix A Figures



- Project Site Boundary
- Key Observation Point and View Direction
- Gen-tie
- Gen-tie Corridor
- Point of Interconnection
- Zeta Substation
- Panel Layout
- Inverters
- O&M Building
- Laydown Yard
- BESS
- Mv Collectors
- Fence
- Access Road
- Perimeter Road
- Utility Lines
- Gate

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Stantec

Project Location
Merced County, CA

Prepared by PG on 2022-06-09
TR by DA on 2023-06-12

Client/Project
Longroad Energy Management, LLC
Zeta Solar and Battery Energy Storage System Project

Figure 1

Title
Project Location and Key Observation Points

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a) View to the north-northeast from KOP 1. A segment of the California Aqueduct is visible in the center of the view, just over 0.1 mile to the northeast. The Vega Solar Project is visible in the center of the view, as close as 1.1 mile away to the northeast.

b) View from KOP 1 with project simulated. Project panels and inverters would be visible from this segment of I-5 beyond the California Aqueduct and in front of the Zeta Solar Project.

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Project Location
Merced County, CA

Client/Project
Longroad Energy Management
Zeta Solar Project

Figure No.
2

Title
Key Observation Point 1

a) View to the east-southeast from KOP 2. The California Aqueduct in the immediate foreground is located approximately 0.05 mile east of the Dos Amigos Pump Station Vista Point. The orchard in the center of the view is as close as 1.5 miles away to the east-southeast.

b) View from KOP 2 with project simulated. The project, including the BESS area and the O&M buildings, would be visible beyond the California Aqueduct, less than 0.5 mile to the east.

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Project Location
Merced County, CA

Client/Project
Longroad Energy Management
Zeta Solar Project

Figure No.
3

Title
Key Observation Point 2

a) View to the east-southeast from KOP 3. The Mercy Springs Substation, just west of the Vega Solar Project and visible along the left edge of this view, is 0.8 mile east of this segment of southbound I-5. The Dos Amigos Pumping Plant facilities along the right edge of the view are about 0.33 mile to the east.

b) View from KOP 3 with project simulated. The project would be visible as close as 0.8 mile to the southeast, in the center of the view. The project substation and gen-tie line are visible extending northward toward Mercy Springs Substation.

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Project Location
Merced County, CA

Client/Project
Longroad Energy Management
Zeta Solar Project

Figure No.
4

Title
Key Observation Point 3

Appendix B Rating Sheets

Zeta Solar and Battery Energy Storage System Project - Visual Resources Assessment KOP Worksheets

Existing Conditions

KOP 1	Location: Northbound Interstate 5	Photo Date: 14-Sep-22
Landscape Unit or Type:	Elevated freeway view	Viewer Type(s): Motorists
View Orientation / Viewer Position to Project (Inferior, Level, or Superior):	NNE / Superior	
Viewpoint Description (Figure Caption):	View to NNE from KOP 1. A segment of the California Aqueduct is visible in the center of the view, just over 0.1 mile to NE. The Vega Solar Project is visible in the center of the view, as close as 1.1 mile away to NE.	

VISUAL CHARACTER

Natural Environment		Distance Zones *		Cultural Environment		Distance Zones *	
Land	Generally flat, with some minor depressions evident in foreground and raised levees in middlegound.	Fore	X	Buildings	Rural residences visible beyond Vega Solar Project	Fore	
		Mid	X			Mid	X
		Back	X			Back	
Water	California aqueduct - smooth, blue, linear - visible across half of view in foreground.	Fore	X	Infrastructure	Gray, linear, flat / concave forms of I-5 and CA Aqueduct canal. Vertical forms of transmission poles. Vega Solar Project polygon.	Fore	X
		Mid				Mid	X
		Back				Back	
Vegetation	Irregular, low, gray/green shrubs in foreground across rough, tan grasslands. Patchwork of crops w/ some trees in mid- and background.	Fore	X	Structures	Fenceposts in foreground.	Fore	X
		Mid	X			Mid	
		Back	X			Back	
Animals	NA	Fore		Artifacts / Art	NA	Fore	
		Mid				Mid	
		Back				Back	
Atmospheric	Sunny. Slight haze evident in distance likely related to agricultural activities.	Fore		Motion	Water in aqueduct not visibly flowing. Ag equipment likely to be visible under some circumstances but not in view.	Fore	
		Mid				Mid	
		Back				Back	

VISUAL QUALITY

	Score**	Notes
Natural Harmony	3	Vegetation visible across view, though the fallowed foreground appears in contrast with managed, agricultural landscape beyond aqueduct. Other land uses interrupt continuity of vegetation in view.
Cultural Order	3	Edge of interstate and aqueduct appear as parallel linear features. However, Vega Solar project and other structures visible throughout the view in no observable pattern offset the order visible in the foreground.
Overall Coherence	3	Viewers traveling this segment of I-5 would be habituated to a predominantly industrial agricultural setting that includes other uses (water conveyence, energy production / transmission) that appear subordinate to farming uses.
Landscape Composition and Vividness	3	Multiple uses are observed, some linear, others polygonal, all as part of a patchwork landscape in which none is dominant beyond freeway and aqueduct corridors.
Overall Visual Quality Score	3.0	Moderately low. The entire area in view appears as a developed or managed landscape. Natural features are croplands / orchards and water that is part of an aqueduct. No single use characterizes the view and no feature stands out as especially vivid or unique.

With Project

KOP 1	Location: Northbound Interstate 5	Date of Eval: 30-Mar-23
Landscape Unit or Type:	Elevated freeway view	Viewer Type(s): Motorists
View Orientation / Viewer Position to Project (Inferior, Level, or Superior):	NNE / Superior	
Viewpoint Description (Figure Caption):	View from KOP 1 with project simulated. Project panels and inverters would be visible from this segment of I-5 beyond the California Aqueduct and in front of the Zeta Solar Project.	

VISUAL CHARACTER CONTRAST

Natural Environment		Distance Zones *		Cultural Environment		Distance Zones *	
Land	No change with project.	Fore		Buildings	No change with project.	Fore	
		Mid				Mid	
		Back				Back	
Water	No change with project.	Fore		Infrastructure	Addition of proposed project would place solar arrays across entire width of view in middleground. Repeating pattern, dark color.	Fore	X
		Mid				Mid	X
		Back				Back	
Vegetation	Grading of project site partially evident; existing vegetation within project site otherwise obscured / removed from view.	Fore		Structures	No change with project.	Fore	
		Mid	X			Mid	
		Back				Back	
Animals	NA	Fore		Artifacts / Art	NA	Fore	
		Mid				Mid	
		Back				Back	
Atmospheric	No change with project.	Fore		Motion	No change with project.	Fore	
		Mid				Mid	
		Back				Back	

VISUAL QUALITY

	Score**	Notes
Natural Harmony	2	The proposed solar project would become the view's dominant feature and would appear atop a fallowed field that appears more natural or undeveloped in current views. The extent to which the vegetated areas appear contiguous would be reduced.
Cultural Order	4	With the addition of the project, the character of the landscape is defined to a greater extent by solar power generation, which appears across the view and, in concert with the existing Vega Solar Project, at some depth.
Overall Coherence	2	Addition of the proposed project atop fallowed land does not obviate other uses. The scale and proximity heighten perceived contrast between solar arrays and agricultural lands / uses, which is not as apparent for existing solar project further away.
Landscape Composition and Vividness	4	Multiple uses remain visible, though the proposed project would make solar power generation the more dominant of them. The scale and proximity of the project would make it memorable in views from I-5.
Overall Visual Quality Score	3.0	Remains moderately low.

* Foreground = zone including area up to 0.25 - 0.5 mile from viewer; Middleground = zone extending between 0.25 - 0.5 mile from viewer to 3 - 5 miles away; Background = zone extending from 3-5 miles away from viewer to infinity.

** 1 = Very Low; 2 = Low; 3 = Moderately Low; 4 = Moderate; 5 = Moderately High; 6 = High; 7 = Very High

Zeta Solar and Battery Energy Storage System Project - Visual Resources Assessment KOP Worksheets

Existing Conditions

KOP 2	Location: Dos Amigos Pump Station Vista Point	Photo Date: 14-Sep-22

Landscape Unit or Type:	Vista Point view	**Viewer Type(s):**	Motorists and recreational viewers visiting the Vista Point

View Orientation / Viewer Position to Project (Inferior, Level, or Superior): ESE / Superior

Viewpoint Description (Figure Caption): View to ESE from KOP 2. The California Aqueduct in the immediate foreground is located approximately 0.05 mile E of the Dos Amigos Pump Station Vista Point. The orchard in the center of the view is as close as 1.5 miles away to ESE.

VISUAL CHARACTER

Natural Environment		Distance Zones *		Cultural Environment		Distance Zones *	
Land	Generally flat, with raised levees and aqueduct in foreground.	Fore	X	**Buildings**	Rural residences visible in background.	Fore	
		Mid	X			Mid	
		Back	X			Back	X
Water	California aqueduct - smooth, blue, linear - visible across half of view in foreground.	Fore	X	**Infrastructure**	Gray, linear, flat / concave forms of CA Aqueduct canal.	Fore	X
		Mid	X			Mid	X
		Back				Back	X
Vegetation	Rough, tan grasslands in foreground and middleground. Orchards, crops, and trees in the background.	Fore	X	**Structures**	Fenceposts in foreground.	Fore	X
		Mid	X			Mid	
		Back	X			Back	
Animals	NA	Fore		**Artifacts / Art**	NA	Fore	
		Mid				Mid	
		Back				Back	
Atmospheric	Sunny. Slight haze evident in distance likely related to agricultural activities.	Fore		**Motion**	Water in aqueduct not visibly flowing. Ag equipment likely to be visible under some circumstances but not in view.	Fore	
		Mid				Mid	
		Back				Back	

VISUAL QUALITY

	Score**	Notes
Natural Harmony	**2.5**	Aqueduct in the foreground is disruptive, and appears in contrast with managed, agricultural landscape beyond aqueduct.
Cultural Order	**3**	Aqueduct appears as parallel linear feature. However, Vega Solar project and other structures visible throughout the view in no observable pattern offset the order visible in the foreground.
Overall Coherence	**3**	Viewers traveling this segment of I-5 would be habituated to a predominantly industrial agricultural setting that includes other uses (water conveyence, energy production / transmission) that appear subordinate to farming uses.
Landscape Composition and Vividness	**3**	Multiple uses are observed, some linear, others polygonal, all as part of a patchwork landscape in which none is dominant beyond aqueduct.
Overall Visual Quality Score	**2.9**	Moderately low. The entire area in view appears as a developed or managed landscape. Natural features are croplands / orchards and water that is part of an aqueduct. No single use characterizes the view and no feature stands out as especially vivid or unique.

With Project

KOP 2	Location: Dos Amigos Pump Station Vista Point	Date of Eval: 30-Mar-23

Landscape Unit or Type:	Vista Point view	**Viewer Type(s):**	Motorists and recreational viewers visiting the Vista Point

View Orientation / Viewer Position to Project (Inferior, Level, or Superior): ESE / Superior

Viewpoint Description (Figure Caption): View from KOP 2 with project simulated. The project, including the BESS area and the O&M buildings, would be visible beyond the CA Aqueduct, less than 0.5 mile E.

VISUAL CHARACTER CONTRAST

Natural Environment		Distance Zones *		Cultural Environment		Distance Zones *	
Land	No change with project.	Fore		**Buildings**	No change with project.	Fore	
		Mid				Mid	
		Back				Back	
Water	No change with project.	Fore		**Infrastructure**	Addition of proposed project would place solar arrays across entire width of view in middleground. Repeating pattern, dark color.	Fore	
		Mid				Mid	X
		Back				Back	
Vegetation	Grading of project site partially evident; existing vegetation within project site otherwise obscured / removed from view.	Fore		**Structures**	Upper portions of the BESS structures and the O&M buildings are would be visible	Fore	
		Mid	X			Mid	X
		Back				Back	
Animals	No change with project.	Fore		**Artifacts / Art**	NA	Fore	
		Mid				Mid	
		Back				Back	
Atmospheric	Atmospheric conditions did not affect project visibility in simulation.	Fore		**Motion**	No change with project.	Fore	
		Mid				Mid	
		Back				Back	

VISUAL QUALITY

	Score**	Notes
Natural Harmony	**2**	The proposed solar project would not become the view's dominant feature; however it would appear atop a fallowed field that appears more natural or undeveloped in current views. The extent to which the vegetated areas appear contiguous would be reduced.
Cultural Order	**3**	The project would appear to be generally absorbed into the existing agricultural landscape. Along the closer side of the project site, partially obscured by the aqueduct levee, the upper portions of the BESS structures and the O&M buildings are would be visible.
Overall Coherence	**3**	With addition of the project, solar panels would be visible across the view in the middle ground. From this vantage point, the project would appear rectilinear, darker, and texturally different from the orchards beyond the project site, but similar in form and linear character
Landscape Composition and Vividness	**3**	Multiple uses remain visible, though the proposed project would make solar power generation the more dominant of them. The scale and proximity of the project would make it memorable in views from I-5.
Overall Visual Quality Score	**2.8**	Remains moderately low.

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Zeta Solar and Battery Energy Storage System Project - Visual Resources Assessment KOP Worksheets

Existing Conditions

KOP 3	Location: Southbound Interstate 5	Photo Date: 14-Sep-22
Landscape Unit or Type:	Elevated freeway view	Viewer Type(s): Motorists
View Orientation / Viewer Position to Project (Inferior, Level, or Superior):	ESE / Superior	
Viewpoint Description (Figure Caption):	View to ESE from KOP 3. The Mercy Springs Substation is 0.8 mile E of this segment of I-5. The Dos Amigos Pumping Plant facilities along the right edge of the view are about 0.33 to E.	

VISUAL CHARACTER

Natural Environment		Distance Zones *		Cultural Environment		Distance Zones *	
Land	Generally flat, with some minor depressions evident in foreground around I-5.	Fore	X	Buildings	Dos Amigos Pumping Plant facilities	Fore	
		Mid	X			Mid	X
		Back	X			Back	
Water	California aqueduct - smooth, blue, linear - visible across half of view in foreground.	Fore	X	Infrastructure	Visible gen-tie lines and metallic Mercy Springs Substation. Gray, linear, flat / concave forms of I-5 and CA Aqueduct canal. Vega Solar Project polygon.	Fore	X
		Mid				Mid	X
		Back				Back	X
Vegetation	Irregular, low, gray/green shrubs and grasses in foreground and middleground across rough, tan grasslands. Patchwork of crops w/ some trees in background.	Fore	X	Structures	Prominent water tower near the center of the view	Fore	
		Mid	X			Mid	X
		Back	X			Back	
Animals	N/A	Fore		Artifacts / Art	N/A	Fore	
		Mid				Mid	
		Back				Back	
Atmospheric	Sunny. Slight haze evident in distance likely related to agricultural activities.	Fore		Motion	Water in aqueduct not visibly flowing. Ag equipment likely to be visible under some circumstances but not in view.	Fore	
		Mid				Mid	X
		Back				Back	

VISUAL QUALITY

	Score**	Notes
Natural Harmony	2	From this vantage point, the valley landscape beyond and alongside these features appears relatively flat, although some sparse scrub vegetation and orchards are discernible. Other land uses interrupt continuity of vegetation in view.
Cultural Order	2	Horizontal and paralel variety of infrastructure in disorderly patchwork.
Overall Coherence	2	Variety of components results in a less-than-coherent view, with linear features (i.e., I-5, transmission lines, and the California Aqueduct), strong vertical features (i.e., a prominent water tower near the center of the view), and other utility infrastructure (i.e., Dos Amigos Pumping Plant facilities, Mercy Springs Substation, and the Vega Solar Project) visible.
Landscape Composition and Vividness	2.5	Multiple uses are observed in a variety of inconsistent forms, including the freeway, aqueduct, gen-tie infrastructure, and water tower.
Overall Visual Quality Score	2.1	Low. The entire area in view appears as a developed or managed landscape. Natural features are croplands / orchards and water that is part of an aqueduct. Patchwork of infrastructure is viewed as disorderly. No single use characterizes the view and no feature stands out as especially vivid or unique.

With Project

KOP 3	Location: Southbound Interstate 5	Date of Eval: 30-Mar-23
Landscape Unit or Type:	Elevated freeway view	Viewer Type(s): Motorists
View Orientation / Viewer Position to Project (Inferior, Level, or Superior):	ESE / Superior	
Viewpoint Description (Figure Caption):	View from KOP 3 with project simulated. The project would be visible as close as 0.8 mile to SE. The project substation and gen-tie line are visible extending northward toward Mercy Springs Substation.	

VISUAL CHARACTER CONTRAST

Natural Environment		Distance Zones *		Cultural Environment		Distance Zones *	
Land	No change with project.	Fore		Buildings	No change with project.	Fore	
		Mid				Mid	
		Back				Back	
Water	No change with project.	Fore		Infrastructure	Addition of proposed project would place solar arrays across view in middleground. Repeating pattern, dark color.	Fore	
		Mid				Mid	X
		Back				Back	
Vegetation	Grading of project site partially evident; existing vegetation within project site otherwise obscured / removed from view.	Fore		Structures	Evenly spaced poles, BESS components, visible as a cluster of low, white rectilinear structures.	Fore	
		Mid	X			Mid	X
		Back				Back	
Animals	N/A	Fore		Artifacts / Art	N/A	Fore	
		Mid				Mid	
		Back				Back	
Atmospheric	No change with project.	Fore		Motion	No change with project.	Fore	
		Mid				Mid	
		Back				Back	

VISUAL QUALITY

	Score**	Notes
Natural Harmony	2	With the project, the view would include the dark, flat plane of the solar arrays; the vertical forms of its utility infrastructure, including evenly spaced poles progressing northward from the project site to its point of interconnection; and its BESS components, visible as a cluster of low, white rectilinear structures.
Cultural Order	2	The expansion of the area occupied by solar panels would appear consistent with the visual character of the existing solar panels that are set within the valley landscape, and their dark gray color would relate to the freeway corridor while contrasting with the project site's more immediate surroundings.
Overall Coherence	2	The project would likely be viewed as an expansion of an already existing area of utility infrastructure, encroaching into a currently fallow agricultural portion of the valley.
Landscape Composition and Vividness	2	Multiple uses remain visible, though the proposed project would make solar power generation the more dominant of them. The scale and proximity of the project would likely be viewed as an expansion of an already existing area of utility infrastructure, encroaching into a currently fallow agricultural portion of the valley.
Overall Visual Quality Score	2.0	Remains low.

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