

5.13 VISUAL RESOURCES

This section discusses the potential for the construction, operation, and maintenance of the SES Solar Two, LLC (Solar Two or Applicant) Project and its ancillary systems (Project) to cause significant effects to aesthetic values within the Project vicinity. The section addresses the inventory of existing visual resources of the affected environment, the assessment of the environmental consequences of the Solar Two Project on visual resources, and the laws, ordinances, regulations, and standards (LORS) pertaining to the aesthetic effects of the Solar Two Project.

The visual resource analysis was conducted in conformance with California Energy Commission (CEC) guidelines for the inventory and assessment of visual effects for an Application for Certification (AFC). The CEC guidelines, in turn, comply with the California Environmental Quality Act (CEQA) documentation requirements, summarized in Section 5.13.2, Environmental Consequences. The study methods used (described in more detail in the inventory and effect assessment sections below) were based on those established by the Bureau of Land Management (BLM), Visual Resource Management (VRM) Inventory and Contrast Rating System (BLM 1986), the Federal Highway Administration (FHWA) Visual Impact Assessment (FHWA 1981), United States Forest Service (USFS) Visual Management System (USFS 1974, 1995), and previous methodologies used in other CEC studies and other energy related projects. Also, the methodology has been tailored to meet the specific issues and regulatory requirements associated with the Solar Two Project.

5.13.1 Affected Environment

This section describes the inventory of visual resources within the vicinity of the Solar Two Project. A description of the regional landscape setting, the anticipated visual sphere of influence (VSOI) of the Project, and the inventory methods and results are included.

5.13.1.1 Regional Landscape Setting

The Solar Two Project Site is located within the Ocotillo/Nomirage Planning Area and unincorporated areas of western Imperial County. Nearby communities include Ocotillo, Seeley, and El Centro. Ocotillo is a small town of residences with about 50 commercial parcels located approximately 4 miles west of the western border of the site. The population of Ocotillo is around 719 people who are spread out in the desert in trailers, pre-fabricated homes, and residences. Seeley and El Centro are located east of the Project. Seeley is 8 miles east and has an approximate population of 1,700. The City of El Centro is located approximately 14 miles east of the eastern border and has an approximate population of 40,000 people.

Most of the public land surrounding the Project Site is currently administered by the BLM and is managed as part of the California Desert Conservation Area. Under the California Desert Conservation Area, the land is undesignated limited use open space. These surrounding areas offer a variety of recreational opportunities including off-highway vehicle (OHV) areas and camping.

The United States Gypsum Corporation operates a plant adjacent to and north of the Project Site. Some private parcels are located within the Project Site. The surrounding areas are zoned open space (S2) land use by Imperial County, and a few areas to the west and east are utilized for low-density residential (R-1) land use by Imperial County. Lands that are actively cultivated for agriculture exist several miles to the east of the Project Site.

From a regional perspective the landscape is mainly undeveloped desert. The general area is characterized as relatively flat desert allowing for open, expansive views of mountains to the west of the valley. Although the mountain ranges are not particularly high, they are effective visual and climatic barriers between each of the regions they define. The Imperial Valley region consists mainly of low-lying desert and irrigated agricultural terrain. The climate is extremely dry with hot summers and mild winters (characteristic of a high desert climate), and there is a persistent haze, typical of the air quality in the area, that impairs clarity of distant views. Distant views from the Project Site consist mainly of mountains to the west and open plains to the east.

The Salton Sea, an alkaline lake located northeast of the Project, is the most significant water feature within the Imperial Valley, other than the vast network of irrigation canals that crisscross the plain. It receives all of the runoff from both sides of the plain because it is an enclosed basin.

5.13.1.2 Project Site

The Solar Two Project Site is approximately 6,500 acres of open space located in rural Imperial County along Interstate 8 (I-8) near the United States Gypsum Corporation's Plaster City Gypsum Wallboard Manufacturing Facility (U.S. Gypsum) located at Plaster City. The site and solar field layout are shown in Section 5.9, Land Use. Although some people live in the Project area, the majority of viewers are likely to be commuting to and from larger urban centers or to local agricultural zones. The open views of the Jacumba Mountains to the west and the Imperial Plain stretching to the east are spotted with dry shrubs and divided by washes.

The Solar Two Project Site is largely vacant and currently consists of undesignated desert BLM-administered public lands and open space private lands. The site slopes gently to the northeast with elevations ranging from approximately 0 to 345 feet above mean sea level. Adjacent land uses include a small number of rural residences about 1.5 miles to the east of the site, to the west of the site, and northeast of the site. There is an elementary school approximately 8 miles to the southeast of the Project Site, and the existing Imperial Valley Substation is approximately 10 miles southeast of the Project Site.

Topographic land features obscure views of the Project Site from the west, including areas of lower elevation in Ocotillo Wells. Imperial Lakes, located to the east of the Project Site, a gated development of about 20 homes, is the closest residential development with a clear line of sight to the Project. This recreational development is located almost 1 mile northeast of the Project boundary, approximately 2 miles from the nearest SunCatchers. Other nearby residences have clearer views of the Project since the Imperial Lakes development is entirely screened by eucalyptus trees. The homes directly east of the Project Site on Evan Hewes Highway have direct views of the Project Site, without screening, and will have the most immediate experience of the Project.

The nearest residence with direct views of the Project is located at 2836 Evan Hewes Highway (see Figure 5.13-3, KOP Location Map).

The Solar Two Project Site includes the solar farm site, construction laydown areas, and overhead transmission lines extending from the northwest corner of the site to the southeast from the site to connect to the Imperial Valley Substation, as described in Section 3.0, Project Description and Location. The 100-acre construction laydown area to the east of Dunaway Road includes construction laydown for the solar farm site, staff parking, equipment storage, a fueling station, and construction offices and a 25-acre staging area.

The construction laydown areas are shown in Section 3.0, Project Description and Location. The Solar Two Project transmission system will require construction of one 230-kilovolt (kV) substation consisting of five power transformers. The 230-kV double circuit transmission line for this Project will be a direct inter-tie between the Solar Two Project and the San Diego Gas & Electric (SDG&E) Imperial Valley Substation. In Phase I of the Project, the line connecting the Project to the SDG&E system will be built with one circuit terminated at the Solar Two Project Substation with provisions for adding a second circuit in the future. The interconnection transmission line will be approximately 10.30 miles long. The 230- to 500-kV SDG&E Imperial Valley Substation will be the point of interconnection for the Project to the SDG&E electrical grid and California Independent System Operator-controlled electrical grid.

During Phase II of the Project, the second circuit will be installed and will connect inside the Project area onto the 230-kV double circuit transmission line routed between the Project substation and the SDG&E Imperial Valley Substation.

The proposed double-circuit transmission line will originate at the Project substation and will parallel the SDG&E 500-kV transmission line corridor in an adjacent 100-foot easement on the southwest side. At approximately the location of the third tower on the existing 500-kV transmission line from the SDG&E Imperial Valley Substation, the interconnection transmission line will cross under the existing 500-kV transmission line and the proposed future 500-kV transmission line (planned as a part of the Sunrise Powerlink transmission line). The interconnection transmission line will then be routed due east to the Imperial Valley Substation, where it will turn due south and enter the substation from the north.

The double-circuit transmission lines from the Project substation to the SDG&E Imperial Valley Substation will utilize lattice steel towers and/or tubular steel poles. The undercrossing of the existing 500-kV SDG&E transmission line and the proposed 500-kV Sunrise Powerlink transmission line will be done in a flat configuration using H-frame structures.

Lattice steel towers or tubular steel poles will be 70 to 110 feet tall and will be designed to provide at least 30 feet of conductor to ground clearance at any point along the span. Transmission structures at the crossing with the 500-kV transmission line will be nominally 71 feet tall. The steel structures will be designed for an average span length of 650 to 800 feet. The actual structure heights and span lengths will be determined during detailed design.

5.13.1.3 Visual Sphere of Influence

The VSOI for the Solar Two Project (Figure 5.13-1, Sensitive Visual Resources Visual Sphere of Influence Map) represents the area within which the Project could be seen and potentially result in significant effects to visual resources. The furthest distance at which potentially significant visual effects could occur was identified as 5 miles. This distance was based primarily on the Project description regarding the potential visibility of major Project components (e.g., structures within the Main Services Complex as well as the boundary of the Solar Two Project) from sensitive viewing areas (see Section 3.0, Project Description and Location, for a general layout of Project components and for site elevations). Also, the distance was based on the guidelines established in the USFS Visual Management System (USFS 1974, 1995). Based on USFS distance definitions, the Solar Two Project was reviewed for sensitive resources within the view ranges noted below.

- **Foreground:** 0 to 0.5 mile from the observer's position. At this distance, the observer can view details of trees, shrubs, wildflowers, and animals.
- **Middleground:** 0.5 to 5 miles from the observer's position. At this distance, the observer can see forest stands, natural openings, masses of shrubs, and rock outcrops.
- **Background:** 5 miles to horizon from the observer's position. At this distance, the observer can view mountain peaks, ridgelines, and patterns of forest stands and openings.

Based on a 5-mile distance limit, the VSOI boundary was refined to account for local viewing conditions, primarily topographic and vegetative screening. Computer viewshed analyses were conducted (using 30-meter-grid cell resolution, generated from 1:24,000 Digital Elevation Model [DEM] data from the United States Geological Survey) to map the boundaries of the VSOI within the 5-mile limit. United States Geological Survey DEM files were imported into an ArcView 9.2-based geographical information system (GIS) using the spatial analysis extension. The combined DEM was used to run viewshed analyses in Universal Transverse Mercator, Zone 10, North American Datum 83.

For the Solar Two Project, the centroid of the approximately 6,500-acre site was used (at 25 feet above existing grade) to run an existing viewshed map. Next, a centroid of the Project Site's tallest structure, the SunCatcher assembly facility at a height of 78 feet, as well as the perimeter/fence line for the entire site, was input and the viewshed model was rerun. The results represent a "typical" viewshed for the Project area.

Overall, the Solar Two Project Site is clearly visible from I-8 as well as several nearby residents and nearby roadway users (within 4 to 5 miles). Most residences will experience background views of the Project as will sporadic locations within the valley and surrounding mountains. Beyond the mapped VSOI, the Solar Two Project would be either not visible due to topography/screening, or of such a small size in the background field of view that significant effects would not be expected.

The VSOI also takes into account the visibility of all proposed industrial development, substation and large transmission lines, as well as the visibility of the Solar Two Project (e.g., the most visible components). Other variables affecting potential visibility of the Project include: orientation of the viewer, duration of view, atmospheric conditions, lighting (daylight versus nighttime), and visual absorption capability (defined as the extent to which the complexity of the landscape can absorb new elements without changing the overall visual character of the area).

The VSOI was mapped to identify the maximum potential area for significant effects of the Solar Two Project in views from visually sensitive areas. Within the VSOI, varying levels of Project visibility have been identified. The highest level of Project visibility exists when the viewer is adjacent to the Solar Two Project Site, the viewer is permanent and stationary, and there is no screening. Conversely, the lowest level of visibility exists, for example, when the viewer is located at greater distances from the site, traveling at a high rate of speed, and in partially to fully screened conditions.

Sensitive viewing areas were identified and inventoried within the 5-mile radius of the Solar Two Project Site. The identification of sensitive viewing areas within the VSOI was conducted through review of existing land use data, agency contacts, and during field reviews. The following is a representative list of sensitive viewing areas that were considered during the inventory:

- residential areas (e.g., the closest residences surrounding the site),
- travel routes: major roads or highways used primarily by origin/destination travelers and designated scenic roads (e.g., local residents, workers, and commuter travelers along I-8 and Evan Hewes Highway), and aircraft using the various airfields in El Centro, and
- parks, recreation areas, wildlife areas, visitor centers, and areas used for camping, picnicking, bicycling, and OHV use.

During field surveys conducted within the immediate Project vicinity, it was noted that few detached homes are present and have complete views of the Solar Two Project Site. Approximately 10 detached residences lie within 5 miles of the site and have direct, unobstructed views of the Project. Approximately 20 other residential viewers would have direct, but slightly obstructed views of the Project Site. These homes have vegetative screenings that minimize or completely eliminate current views to the site. In addition, there are 20 to 30 other detached residences within 10 miles of the site with no view of the site due to topographic variation and features. Residences further than 10 miles away may have direct views to the Project Site; however, these views are distant and partially obscured due to the presence of adjacent residences in the foreground, topographic features, and/or existing vegetative screening.

In addition to the residential viewers, travelers along I-8 would have direct and immediate views of the site. Due to area topography, and the lack of vegetative screening adjacent to the interstate through the desert, traveler views are unobstructed for over 20 miles in the vicinity of the site. Direct unobstructed traveler views are available as the interstate approaches both the western and eastern boundaries of the site, and the I-8 forms the southern boundary for over 5 miles between the Dunaway Road exit and Ocotillo. Traffic flow road counts along I-8 indicate that a high number of travelers utilize the I-8 corridor through this area with approximately a 13,200 to 13,400 annual average daily traffic count.

A nearby open space and OHV area, named Plaster City Open Area, lies adjacent to and north of the Project Site. Views to the site from within the OHV area are direct and immediate except where topography of washes obscures horizon line views. Also, the OHV Area is an open space sensitive resource area and considered to have potential for passive recreation activities (see Figure 5.13-4, Character Photo 1). No formal camping has been established in this area but users are known to camp near the Project Site, just north of the Evan Hewes Highway.

Levels of potential effect on sensitive viewing areas were established through an analysis of the following two primary components:

- effect susceptibility: the degree to which a sensitive viewpoint would be impacted by changes within its viewshed, and
- effect severity: the degree of change to the landscape created within a specific viewshed.

Character photos of the areas surrounding the Project Site (Figures 5.13-4 through 5.13-11) depict the existing visual environment of the viewing areas and sensitive visual resources within areas surrounding the Project. Some of these character photos may not have views to the Project; however, they have been included to help describe the visual resources within the region. These photos also help the reader understand the general visual character of the surrounding area and the land uses within the region. The results of the viewshed analysis and the field photo survey indicated that most sensitive viewing areas within the VSOI were from those areas immediately adjacent to the Solar Two Project Site (foreground viewers): at the Plaster City Open Area, nearby residents, and travelers along I-8.

5.13.1.4 Visual Study Inventory Components

The following sections detail the visual study inventory components used in the assessment of potential effects. Three primary components inventoried were: (1) an evaluation of scenic attractiveness; (2) consideration of existing scenic integrity levels (ESILs); and (3) the identification of sensitive viewing areas.

Scenic Attractiveness

When evaluating scenic attractiveness, both natural and manmade components within the VSOI were considered as they relate to either adding to or detracting from the overall landscape character within a specific setting. Scenic attractiveness levels are established by evaluating the distinctiveness and diversity of a particular landscape setting in relation to the following elements:

- landform,
- vegetation,
- water,
- color,
- effects of adjacent scenery,

- scarcity of the landscape, and
- cultural modifications.

The inventory and evaluation of the above elements assist with the characterization of scenic attractiveness within the VSOI. In general, landscapes are characterized by three classes: A through C.

Class A

Areas have outstanding diversity or interest; characteristic features of landform, water, and vegetation are distinctive or unique in relation to the surrounding region. These areas contain considerable variety in form, line, color, and texture.

Class B

Areas have above-average diversity or interest, providing some variety in form, line, color, and texture. The natural features are not considered rare in the surrounding region but provide adequate visual diversity to be considered valuable.

Class C

Areas have minimal diversity or interest; representative natural features have limited variation in form, line, color, or texture in the context of the surrounding region. Discordant cultural modifications (e.g., substations, transmission lines, and other cultural modifications) can be highly noticeable, which can reduce the inherent value of the natural setting.

The VSOI for the Project area was characterized at the Class C level for scenic attractiveness; however, marginal Class B landscapes do exist. While landscapes within the VSOI provide open/panoramic views that lack intense development, no landscapes were considered to have distinctive characteristics as defined by Class A or B levels. Most landscapes within the VSOI were identified as Class C or as landscapes lacking significant natural amenities.

Scenic Attractiveness Evaluation Forms (Figures 5.13-12 through 5.13-16) were developed for sensitive view areas within the VSOI. The values underlined in the scenic attractiveness rating box on the forms illustrate the assigned values (H – high, M – moderate, or L – low) for each natural feature (e.g., landform, vegetation, water, etc.) or negative/positive cultural modification. The combined value of these elements is used to determine in which class the landscape should be characterized. The VRM system is designed to separate the existing landscape and the Project into their features and elements and to compare each part to the other to identify parts that are incompatible (BLM 1986). The resulting landscape classifications are presented below.

- **Class I:** The objective of this class is to preserve the existing character of the landscape. Changes to the landscape character should not be evident.
- **Class II:** The objective of this class is to retain the existing character of the landscape. Changes to the landscape character may attract slight attention but should be subordinate to the visual setting.
- **Class III:** The objective of this class is to partially retain the existing character of the landscape. Changes to the landscape character may begin to attract attention but should not dominate the visual setting.

- **Class IV:** The objective of this class is to allow for activities that modify the existing character of the landscape. Changes to the landscape character may attract attention and dominate the visual setting. However, these activities should minimize changes to the landscape where possible.

Existing Scenic Integrity Levels

The ESILs of a specific landscape setting can be defined as the extent to which natural features have been modified by human actions to the point of degrading the natural setting. An inventory of the ESILs within the VSOI was conducted and varying cultural modifications were documented. Varying cultural modifications within the VSOI include, but are not limited to, various residential and rangeland developments, storage buildings, the existing Imperial Valley Substation, and an elementary school. Several transmission line corridors that support electricity transmission also traverse the landscape within the VSOI. The ESILs criteria listed below were used to evaluate degrees of modifications.

- **High:** The landscape character appears intact. Deviations are present but repeat form, line, color, texture, and patterns common to the landscape character so completely and at such a scale that they are not evident.
- **Moderate:** The landscape character appears slightly altered. Noticeable deviations remain visually subordinate to the landscape character being viewed.
- **Low:** The landscape character appears heavily altered. Deviations strongly dominate the landscape character. Deviations do not borrow from attributes such as size, shape, edge effects, vegetative type changes, or architectural styles within or outside the landscape being viewed.

The areas within the VSOI were classified as retaining low to moderate existing scenic integrity.

Viewer Sensitivity and Sensitive Viewing Areas

Viewer Sensitivity

While conducting this study, no attempt was made to model for varying levels of viewer concern with change in their landscape. Because of the difficulty in inventorying for every individual's sensitivity level, it was determined that all viewers may have a high level of concern related to changes occurring in landscapes within the VSOI. Generally, a viewer's concern level is associated with, but not limited to, the following factors:

- viewing location, orientation of view, and duration of view,
- activity in which the viewer may be engaged (e.g., driving, recreation activities, or bird watching),
- visual acuity related to the intensity of visual detail within a landscape setting,
- state of mind or attitude,
- preconceived expectations related to scenic quality, and
- inherent values related to scenic quality and familiarity within specific landscape settings.

Sensitive Viewing Areas

After discussions with CEC visual staff, and a review of surrounding land uses, it was determined that sensitive viewing areas within the VSOI consisted primarily of adjacent residential areas, travelers along I-8, and potential recreational users within the Plaster City Open Area adjacent north of the Project Site. The nearest residence with direct views to the Solar Two Project Site is located approximately 1.5 miles from the eastern boundary of the site. This residence has midground-direct, unobstructed views to the Project.

Evan Hewes Highway is adjacent north of the Project Site and views to the site are direct and immediate. I-8 runs in an east/west orientation adjacent to the boundary of the Project Site, and extends through the southern edge of the Project area. Direct unobstructed traveler views are available as the highway approaches the southwestern and southeastern boundaries of the site.

I-8 is not a designated scenic highway by FHWA or California Department of Transportation standards. No other travel routes within the VSOI are designated as federal, state, or county scenic highways or travel routes subject to aesthetic management goals or objectives. Also, no action toward studying these roadways has taken place to date and no action is planned to occur within the next few years (correspondence with County staff).

The Plaster City Open Area to the north is the closest sensitive resource area with potential recreational users to the Solar Two Project Site. This area is utilized by OHV users, campers, and a few avid hikers. Due to the flatness of the desert topography, potential recreational users within the OHV area have open, expansive views of the Project Site. Views to the site from this location during OHV activities will most likely be intermittent since wash areas and other areas of lower elevation have obscured views, but views from the OHV recreational area are considered to include foreground, middle ground, and background views.

5.13.1.5 Inventory Results

Scenic Attractiveness

The VSOI is composed primarily of Class C and marginal Class B landscapes. This is because of the absence of distinctive natural amenities (e.g., diverse and distinctive natural elements) present within the VSOI. The Peninsular Mountains area to the east possesses a slightly higher degree of scenic attractiveness because of the elevations in topography allowing large open expansive views into the Imperial Valley and the distinctive quality of the rocky landscape.

Within the VSOI, open expanses of desert lands create a general continuity of the visual setting. Checkerboard parcels of an assortment of irrigated farming activities to the east and southeast of the Project area contributes to a change in landform and distinctiveness of the rural setting of the landscape. The vegetative pallet within undisturbed desert areas consists mainly of tan and grey sands, spotted by low-lying bushes, and scrubland trees. Landscaped poplar and eucalyptus trees surrounding the Imperial Lakes Specific Area development stand out from the natural visual setting. Background views of several large mountain ranges add variety within the background-viewing threshold; however, a persistent dust haze, characteristic of the air quality in the area, impairs clarity in distant views.

ESILs

Most landscapes inventoried within the VSOI can be classified as retaining primarily low to borderline-moderate ESILs. In general, there is little development within the VSOI; however, the presence of manmade development is scattered throughout the area, including but not limited to the U.S. Gypsum plant. Development in the area includes residences, livestock and farming lands and structures, farming/rangeland developments, property fencing, and the nearby Imperial Valley Substation. Also, overhead 230-kV transmission lines and telephone lines cross the I-8 and stretch throughout the Project area and beyond. Areas adjacent to the Solar Two Project Site were also generally identified as having low ESILs due to the lack of color and topographical variation, vegetation, and overall lack of distinctiveness to the visual character in the area.

Sensitive Viewing Areas and Key Observation Points

Key observation points (KOPs) are viewing locations chosen to be representative of the most visually sensitive areas that would view the Project (see Figures 5.13-17 through 5.13-21). The KOPs presented below were reviewed and approved by Paula David, Community Resources Supervisor of the Energy Resources Siting Office, California Energy Commission. There are other, closer views of the Project Site that were considered for KOPs; however, after CEC consultation, the KOPs presented below were selected. Closer views of the Project Site are presented in the Character Photos 1 through 8 (see Figures 5.13-4 through 5.13-11).

The inventory of KOPs included three components: (1) identification and photo-documentation of viewing areas and potential KOPs; (2) classification of visual sensitivity of KOPs; and (3) description of Solar Two Project visibility from KOPs. KOPs were identified based on review of available land use data, field inspection, and discussion with CEC staff responsible for the evaluation of visual resources.

Viewer sensitivity is a measure of the degree of concern for change in the visual character of a landscape. Viewer sensitivity considers type of use, user attitude, volume of use, adjacent land use, visual quality, and special classifications. Three levels of viewer sensitivity (high, moderate, or low) were used to describe the sensitivity of viewers within the study area. High-sensitivity viewpoints identified in the study area include existing nearby residences and the OHV recreational area to the north. Moderate-sensitivity viewers identified in the study area consist of existing primary area roadway travelers along I-8.

Mountain area and other more distant open space/recreational users were identified as moderate-to-low sensitivity viewers due to the distance from the Project Site of the Peninsular Mountain Ranges and the type of activities carried out in these more distant open space areas. Low-sensitivity viewers include industrial areas and are not evaluated in detail for this study because these areas are considered to be a compatible use with the Project and, therefore, would not result in significant visual effects. Industrial facilities in the area include Plaster City and U.S. Gypsum, which is located on the northern boundary of the Project Site. The main visual interest and/or draw for the area is essentially created by the open expanses of land and the panoramic view of desert and mountains; however, a persistent dust haze, characteristic of the air quality in the area, impairs clarity in distant views on windy days. Due to the open space designation for the BLM areas, the ESIL from some nearby areas could be characterized as borderline Class B.

Visibility determines how the Project would be seen from a particular viewing area or KOP. The inventory of Project visibility documented the distance from the viewpoint to the Project. Perception of details (e.g., form, line, color, and texture) diminishes with increasing distance. The distance zones were: foreground (0 to 0.5 mile), middleground (0.5 to 5 miles), and background (beyond 5 miles). In addition, the inventory evaluated if views were open, partially screened (filtered), or screened (e.g., presence of hillside terrain, vegetation, and/or buildings).

Five sensitive viewing areas were identified as representative of viewers who would be most susceptible to visual effects within their viewshed as a result of the Solar Two Project Site.

Sensitive Viewing Area and KOP #1

This image was taken from the OHV area to the north of the Project Site, approximately 1.5 miles from the northern perimeter of the site (see Figure 5.13-3, KOP Location Map, and Figure 5.13-17, Existing View from KOP #1). Since the OHV area has unobscured views to the Solar Two Project Site, it was chosen as a representative KOP. This view represents one of the “worst case” recreational user views from the north. In combination with KOP #2, this view has the longest viewing duration of the Project, as well as the highest degree of severity because of proximity. The Project, in the absence of screening, would be highly visible because of the flat, open viewing conditions.

This view is typical of the visual environment in an expansive desert wilderness. The existing viewshed has been modified with the presence of existing transmission and telephone lines/poles, on the Solar Two Project Site, U.S. Gypsum, and the nearby I-8. However, this viewing area is generally characterized by a flat desert form with very little texture and diversity. There is little color variation (mainly from patches of sparse low-lying vegetation), and low contrast of generally mute desert tones. The horizon line is composed of distant mountain views. To the east, the visual form varies to consist of a patchwork of farmlands.

The ESIL from this area can be characterized as Class C (see Figure 5.13-12, Scenic Attractiveness Evaluation Form for Sensitive View Area and KOP #1).

Sensitive Viewing Area and KOP #2

This is a front yard view of the closest residence with direct views of the Project; 2835 Evan Hewes Highway. This residence exists approximately 1.5 miles from the eastern perimeter of the Solar Two Project Site (see also Figure 5.13-3, KOP Location Map, and Figure 5.13-18, Existing View from KOP #2). As this residence has an unobscured view to the Solar Two Project Site, it was chosen as a representative KOP. This view represents the “worst case” residential views from the east. In combination with KOP #1, this view has the longest viewing duration of the Project, as well as a high degree of severity because of proximity. The Solar Two Project Site, in the absence of screening, would be highly visible due to the flat, open viewing conditions.

The viewshed has been modified with the presence of existing transmission lines, the existing U.S. Gypsum plant, Evan Hewes Highway, nearby residences, and existing/abandoned farm structures in the foreground. Flat open expanses of desert can be seen in this view, with cultural modifications such as the Imperial Lakes Specific Planning Area (SPA) located in the

foreground, and the U.S. Gypsum area in the background. Lines are interrupted by surrounding development and color contrasts between the drab palette of desert wildlands to greener areas of planted crops, while landscaped areas, farms and residences contribute to a patchwork landform.

The ESIL from this area can be characterized as Class C (see Figure 5.13-13, Scenic Attractiveness Evaluation Form for Sensitive View Area and KOP #2).

Sensitive Viewing Area and KOP #3

This image was taken from the residence with the most immediate views of the proposed transmission lines that will feed into the Imperial Valley Substation to the southeast of the Project area (see Figure 5.13-3, KOP Location Map, and Figure 5.13-19, Existing View from KOP #3). Views from this residence are considered potentially sensitive due to the proximity of the proposed transmission lines. However, there is no view of the solar field from this sensitive area. The photo from this location represents “worst-case” residential views of the Project linear transmission elements.

In the area, farming and residential structures, area topography, and vegetative screening create intermittent view obstructions however in the absence of screening, the proposed transmission lines would be highly visible to this residence as they cross through the Yuha Area of Critical Environmental Concern (ACEC) and join the Imperial Valley Substation. This view is considered to have a moderate to low degree of severity due to the existing presence of transmission lines in the area and the distance from the location of the proposed transmission lines. It should be noted that the most distinct visual characteristics here are distant views to western mountains and the patchwork of various grasslands and dry-farming/agricultural activities.

The ESIL from this area can be characterized as Class C (see Figure 5.13-14, Scenic Attractiveness Evaluation Form for Sensitive View Area and KOP #3).

Sensitive Viewing Area and KOP #4

This image was taken approximately 5 miles west of the site along I-8 eastbound, near Ocotillo. This image represents “worst-case” potential views of travelers approaching the Project Site from the Mountainside area, and elevated traveler views along I-8 (see Figure 5.13-3, KOP Location Map, and Figure 5.13-20, Existing View from KOP #4). Although this sensitive viewing area is approximately 5 miles away and considered to have more distant views, travelers are at an elevated viewing position, and would virtually have a direct line-of-sight to the Project vicinity.

The viewshed has been modified by various forms of development at Ocotillo and Plaster City. Cultural modifications including Ocotillo Wells, commercial and residential development, and I-8 dominate the foreground of this view while background views include open expanses of desert. The elevation of this location allows for vast views to the horizon. The form is typical of the sparsely populated desert environment in this area and lines are defined by the surrounding mountains and the distant flat horizon looking towards El Centro.

The ESIL from this area can be characterized as Class C (see Figure 5.13-15, Scenic Attractiveness Evaluation Form for Sensitive View Area and KOP #4).

Sensitive Viewing Area and KOP #5

This image was taken from I-8 westbound, immediately adjacent south of the site near the Dunaway Road on-ramp. This KOP represents a “worst-case” potential traveler view westbound from El Centro towards Ocotillo and the Mountain areas (see Figure 5.13-3, KOP Location Map, and Figure 5.13-21, Existing View from KOP #5). This view illustrates the location from which the Project would be most visible. Travelers are at an elevated viewing position, and would be confronted with the most immediate views of the solar field. This view is within 200 feet of the SunCatchers and proposed transmission lines will cross I-8 ahead. Currently views in this area include open expanses of desert.

The industrial development of U.S. Gypsum is apparent in the middleground of views from this location. The viewshed is currently dominated by I-8 and the existing transmission towers. The surrounding visual environment varies as travelers proceed from the more populated areas to the east to the outlying desert areas that characterize the proposed site and small community of Ocotillo.

The ESIL from this area can be characterized as Class C (see Figure 5.13-16, Scenic Attractiveness Evaluation Form for Sensitive View Area and KOP #5).

5.13.2 Environmental Consequences

5.13.2.1 *Significance Criteria and Assessment Methodology*

The visual resources study included the assessment of effects on scenic attractiveness and sensitive viewing areas within the VSOI related to the construction, operation, maintenance, and long-term presence of the Solar Two Project Site.

The consideration of significant visual effects was based predominantly on the requirements of CEQA. Appendix G of the CEQA Guidelines states that potential effects to visual resources would be significant if a Project results in:

- a substantial adverse effect on a scenic vista,
- substantial damage of scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings,
- substantial degradation of the existing visual character or quality of the site and its surroundings, and
- creation of a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

Also, the CEC requires that consideration be given to the following:

- compliance with LORS,
- level of viewshed alteration and ground form manipulation,
- regional effects to visual resources,
- magnitude of effect related to light and glare,

- magnitude of backlight scatter during nighttime hours, and
- level of sunlight reduction or increase in shadows in areas used by the public.

The matrix presented in Table 5.13-1, Visual Effect Significance Matrix – Sensitive Viewing Areas, aids in the assessment of visual effect significance.

**Table 5.13-1
Visual Effect Significance Matrix – Sensitive Viewing Areas**

Visual Effect Severity	High Susceptibility	Moderate Susceptibility	Low Susceptibility
High	Significant	Less than significant with mitigation	Less than significant effect
Moderate	Less than significant with mitigation	Less than significant effect	No effect
Low	Less than significant effect	No effect	No effect

Source: URS Corporation, 2008.

Visual Simulations

A comparison of existing views (KOP) with visual simulations, depicted in Figures 5.13-22 through 5.13-26 aided in verifying Project-related effects. The simulations served to present a representative sample of the existing landscape settings contained within the VSOI, as well as an illustration of how the Solar Two Project may look from specific key viewing locations.

To ensure a high degree of visual accuracy in the visual simulations, computer-aided drafting and design (CADD) equipment, GIS, and the use of a global positioning system allow for life-size modeling within the computer. This translates to using real-world scale and coordinates to locate Project facilities, other site data, and the camera locations corresponding to three-dimensional (3D) simulation viewpoints.

A GIS site map is imported as a background reference. CADD drawings of proposed Project facilities are placed on top of the Project Site map in GIS. Locations of sensitive viewing areas are also input into GIS. The camera positioning information is then referenced to the 3D data set. The 3D massing models of both the proposed Project (including ancillary facilities) are generated in real-world coordinates, scaled, and input into GIS.

An electronic camera lens matches the camera lens that was actually used in the field. A Nikon 6.1 megapixels digital camera set to take a 19.2-millimeter lens image was used consistently throughout the process. This lens setting selection allows for viewing of the computer-generated model in the same way that the Solar Two Project would be viewed in the field.

Next, the photograph is imported into the 3D database and loaded as an environment within which the view of the 3D model is generated. To generate the correct view relative to the actual photograph, the electronic camera is placed at a location (within the computer) from where the photograph was taken. From there, the 3D wire frame model is displayed on top of the existing photo so that proper alignment, scale, angle, and distance can be verified. When all lines of the wire frame model exactly match the photograph, the camera target position is confirmed.

It should be noted that final simulations were created using CADD files obtained from the Project engineer to remain consistent with general Solar Two Project development engineering.

Once field KOP location photos and coordinates for photo locations were gathered, these were incorporated into the final simulation production. The processes described above relate to general simulation construction and are included for reader understanding of the procedures.

The visual simulations developed for the Solar Two Project have been designed to be viewed 10 inches from the viewer’s eye. This distance will portray the most realistic life-size image from the location of the sensitive viewing area.

Assessing Visual Effect Susceptibility on Sensitive Viewing Areas

As stated previously, in Section 5.13.1.2, Project Site, visual effect susceptibility is the degree to which a sensitive viewpoint would be impacted by changes within its viewshed. Following identification of the five most sensitive viewing areas within the VSOI, the degree of effect on each area was determined through the analysis of the components listed below.

- **ESIL:** The degree of existing disturbance within the natural setting.
- **Viewer Sensitivity:** All residential viewers were considered high sensitivity viewers, while recreational users and motorists are less sensitive (in this instance).
- **Project Visibility:** An assessment of the viewing angle, potential screening, lighting conditions, and time of day.
- **Viewer Exposure:** An assessment of the distance from the Project, number of viewers, and duration of views.

Table 5.13-2, Visual Effect Susceptibility – Sensitive Viewing Areas, illustrates the level of visual effect susceptibility anticipated for each sensitive viewing area based on an evaluation of the previously stated factors.

**Table 5.13-2
Visual Effect Susceptibility – Sensitive Viewing Areas**

Viewing Areas	Existing Scenic Integrity Level	Viewer Sensitivity	Project Visibility	Viewer Exposure	Visual Effect Susceptibility
Sensitive Viewing Area and KOP #1 (Figure 5.13-12, Figure 5.13-17, and Figure 5.13-3 for KOP location) – from unobscured view of OHV area recreational user to the north.	Moderate	High	High	Moderate	Moderate/High
Sensitive Viewing Area and KOP #2 (Figure 5.13-13, Figure 5.13-18, and Figure 5.13-3 for KOP location) – from unobscured front yard view of adjacent residence to the east.	Moderate	High	High	Moderate	Moderate/High

**Table 5.13-2
Visual Effect Susceptibility – Sensitive Viewing Areas**

Viewing Areas	Existing Scenic Integrity Level	Viewer Sensitivity	Project Visibility	Viewer Exposure	Visual Effect Susceptibility
Sensitive Viewing Area and KOP #3 (Figure 5.13-14, Figure 5.13-19, and Figure 5.13-3 for KOP location) – from unobscured front yard view of transmission lines from residence to the south.	Low	Moderate	Low	Low	Low
Sensitive Viewing Area and KOP #4 (Figure 5.13-15, 5.13-20, and Figure 5.13-3 for KOP location) – traveler view from I-8 eastbound, elevated approach near Ocotillo.	Low	Moderate/ Low	High	High	Moderate
Sensitive Viewing Area and KOP #5 (Figure 5.13-16, Figure 5.13-21, and Figure 5.13-3 for KOP location) – traveler view from I-8 westbound, immediately adjacent south of Project Site.	Low	Moderate	High	High	Moderate/High

Source: URS Corporation, 2008.

Notes:

I-8 = Interstate 8

KOP = key observation point

OHV = off-highway vehicle

Assessing Visual Effect Severity on Sensitive Viewers

The severity of the effect (high to low) on sensitive viewers was assigned a severity level proportionate to the amount of anticipated change to the landscape created within a specific viewshed. The primary criteria for Project effects include:

- the degree of Project contrast (e.g., form, line, color, and texture),
- scale and spatial dominance, and
- extent of view blockage/screening (topographic and/or vegetative) and night lighting.

Table 5.13-3, Visual Effect Severity – Sensitive Viewing Areas, describes levels designated to each variable above as they relate to the degree of visual effect severity anticipated on representative sensitive viewing areas.

The final evaluation conducted in the effect assessment was the assignment of potential effect levels on representative sensitive viewing areas by combining viewer susceptibility and effect severity levels at key and characteristic viewing locations.

**Table 5.13-3
Visual Effect Severity – Sensitive Viewing Areas**

Viewing Areas	Form Contrast	Line Contrast	Color Contrast	Texture Contrast	Scale Dominance	Spatial Dominance	View Blockage	Night Lighting	Visual Effect Severity
Sensitive Viewing Area and KOP #1 (Figure 5.13-12, Figure 5.13-17, Figure 5.13-22, and Figure 5.13-3 for KOP location) – from unobscured view of OHV area recreational user to the north	Moderate/High	Moderate	Moderate	Moderate/High	Dominant	Dominant	Moderate	Moderate/Low	Moderate/High
Sensitive Viewing Area and KOP #2 (Figure 5.13-13, Figure 5.13-18, Figure 5.13-23, and Figure 5.13-3 for KOP location) – from unobscured front yard view of adjacent residence to the east.	Moderate	Moderate	Moderate	Moderate/Low	Dominant	Dominant	Moderate/Low	Low	Moderate
Sensitive Viewing Area and KOP #3 (Figure 5.13-14, Figure 5.13-19, Figure 5.13-24, and Figure 5.13-3 for KOP location) – from unobscured front yard view of transmission lines from residence to the south.	Moderate/Low	Moderate/Low	Low	Low	Co-Dominant	Co-Dominant	Low	Low	Low
Sensitive Viewing Area and KOP #4 (Figure 5.13-15, Figure 5.13-20, Figure 5.13-25, and Figure 5.13-3 for KOP location) – traveler view from I-8 eastbound, elevated approach near Ocotillo.	Moderate/High	Moderate/High	Moderate	Moderate	Dominant	Dominant	Moderate	Low	Moderate

**Table 5.13-3
Visual Effect Severity – Sensitive Viewing Areas**

Viewing Areas	Form Contrast	Line Contrast	Color Contrast	Texture Contrast	Scale Dominance	Spatial Dominance	View Blockage	Night Lighting	Visual Effect Severity
Sensitive Viewing Area and KOP #5 (Figure 5.13-16, Figure 5.13-21, Figure 5.13-26, and Figure 5.13-3 for KOP location) – traveler view from I-8 westbound, immediately adjacent south of Project Site.	High	High	High	High	Dominant	Dominant	Moderate/High	Moderate	High

Source: URS Corporation, 2008.

Notes:

I-8 = Interstate 8

KOP = key observation point

OHV = off-highway vehicle

5.13.2.2 Visual Effect Assessment Results

This section discusses the affected visual resources for the Solar Two Project. A description of the potential effects on scenic attractiveness and on sensitive viewers is provided. A detailed description of the Solar Two Project is in Section 3.0, Project Description and Location. Table 5.13-4, Major Components, Structures, and Equipment, includes design characteristics of some of the more prominent Project features (due to height/size) related to the visual effect assessment.

**Table 5.13-4
Major Components, Structures, and Equipment**

Description	Quantity	Length (feet)	Width (feet)	Height (feet)
SunCatcher Power Generating System	30,000	38-foot diameter by 40 feet		
Main Services Complex Administration Building	1	200	150	14
Main Services Complex Maintenance Building	1	180	250	44
Main SunCatcher Assembly Building	3	211	170	78
Raw Water Storage Tank, 175,000 gallons	1	40		20
Demineralized Water Tank, 175,000 gallons	2	40		20
Potable Water Tank, 17,000 gallons	1	18		10
230-kV Transmission Line Towers, Double-circuit with Upswept Arms	85 to 100	--	32	90 to 110
Generator Collection Sub-Panel; Distribution Panel, 42 Circuit, 400 A, 600 V, with Circuit Breakers in a Weatherproof Enclosure	2,500	1	2.67	5
Generator Collection Power Center, 2,000 A Distribution Panels with 6-400 A Circuit Breakers	500	2	3.33	7.5
Collector Group Generator Step-Up Unit Transformer, 1,750 kVA, 575 V to 34.5 kV, with Taps	500	6.67	7.5	6.67
Power Factor Correction Capacitor, 600 V, 1,000 kVAR, Switched in 5 Each 200 kVAR Steps	500	2.5	6.67	7.5
Open Bus Switchrack, 35 kV, 7 Bay with 5-35 kV, 1,200 A, 40 kVA INT, Circuit Breakers, Insulators, Switches, and Buswork	5	105	20	30
Shunt Capacitor Bank, 34.5 kV, 90 MVAR Switched in 6 Each 15 MVAR Steps	6	15	8	20*
DVAR Compensation System in Coordination with Shunt Capacitor Banks – Size to be Determined By Studies	4	60	12	16
Disconnect Switch, 35 kV, 3,000 A, 200 kV BIL, Group-Operated	5	3	11	16*
Power Transformer, 3 Phase, 100/133/166.7 MVA, 230/132.8-34.5/19.9 kV, 750 kV BIL, Oil Filled	5	15	35	23
Power Circuit Breaker, 242 kV, 2,000 A, 40 kA Interrupting Capacity	7	12	20	16

**Table 5.13-4
Major Components, Structures, and Equipment**

Description	Quantity	Length (feet)	Width (feet)	Height (feet)
Coupling Capacitor Transformer for Metering, 242 kV, 900 kV BIL, 60 Hz, PT Ratio 1200/2000:1	6	1	1	25*
Disconnect Switch, 242 kV, 2,000 A	10	10	25	25*

Source: Stantec Engineering, 2008.

Notes:

* Includes structure height to provide electrical safety clearances to ground.

- = not applicable
- A = amp
- BIL = basic lightning impulse insulation level
- DVAR = dynamic volt-amperes reactive system
- Hz = hertz
- INT = interrupting
- kA = kiloamperes
- kV = kilovolts
- kVA = kilovolt-amperes
- kVAR = kilovolt-amperes reactive
- MVA = megavolt-amperes
- MVAR = megavolt-amperes reactive
- PT = potential transformer
- V = volt

Important Project details taken into account as part of the visual effect assessment are listed below.

- Site access would be provided from Dunaway Road and Evan Hewes Highway via new access roads and restrictive gates.
- A security fence (a minimum 10-foot high chain link fence with three strands of barbwire on top) will enclose the entire approximately 6,500-acre Project Site.
- The property is largely vacant and undisturbed except for unpaved OHV paths. No structures currently exist on-site.
- The Project would require necessary transmission lines to interconnect to the Imperial Valley Substation. In Phase I of the Project, the overhead line would begin at the dead-end structure in the substation and would continue east and southeast to interconnect with the Imperial Valley Substation. Approximately 2.74 miles of the transmission line would be within the Project Site boundary, and 7.56 miles of the transmission line would be off-site. Between 85 and 100 new transmission towers and/or poles would be required. In Phase II of the Project, a second circuit would be installed on the transmission line towers installed in Phase I. The Solar Two Project transmission line would extend from the Project Site substation south and east to the existing 500-kV Southwest Powerlink right-of-way (ROW) through the Yuha ACEC to the Imperial Valley Substation. See Section 3.0, Project Description and Location.
- Surrounding site development includes the U.S. Gypsum plant, property fencing, various farming/residential properties, a large transmission line corridor, an existing substation, a school, and I-8.

- The property is relatively flat, sloping gently down to the southeast but with a small drop off to the west which partially obscures the Project Site from residences on the western edge.
- Due to the existing grade of the site, site preparation earthwork includes surface grading to create terracing across the Project Site.
- Selected areas would be covered with appropriate material, as conditions require (e.g., asphalt concrete or a soil binder for arterial road paving, and gravel and/or soil binders for other surfaces).

Direct Effects

The following sections describe direct effects related to the Project.

Visual Effect Significance on Scenic Attractiveness

Visual effects to the surrounding areas are a direct result of the size and scale of the Project. The development will be a newly introduced, highly dominant feature of the landscape. The current open and expansive views existing in the area will not be occluded by the presence of the Solar Two Project, but existing integrity and continuity of views will be newly defined for many miles of the landscape. Visual Quality is currently moderate to low and the presence of the solar dishes will not affect visual quality to the extent that it will affect the character of the visual environment in this area. The new visual environment will no longer evoke the desolate open space that it has historically, but a modern center for the production of renewable energy. Significant impacts to area visual resources are anticipated.

The Project is expected to significantly alter the existing character of the site creating significant effects to the general scenic attractiveness of the VSOI area as a whole. The Solar Two Project would be highly visible from adjacent locations in the area. Given the large scale of the Project (approximately 6,500 acres), the lack of significant topographic features and the limited degree of existing landscape modification (e.g., I-8, Plaster City, a substation, transmission lines, and adjacent residences) within the VSOI, potentially significant effects on scenic attractiveness are expected; however, landscapes inventoried within the VSOI are classified as retaining primarily moderate to low ESILs. Also, activities at the Solar Two Project Site would occur in areas previously disturbed due to OHV use and limited recreational activities and within areas classified as retaining moderate to low distinctive or diverse natural amenities or lacking substantial positive cultural modifications. Therefore, significant effects would occur relative to existing scenic attractiveness.

It should be noted that the Solar Two Project may also draw positive visual interest to the area. As one of the first and largest projects of its kind in California, the solar technology has the potential to become a tourist attraction, drawing visitors from the energy industry, environmental community, and government/political figures who seek the direct personal experience of progressive renewable energy solutions. For example, since its development, the wind farm of approximately 4,000 wind turbine generators/windmills in the San Geronio Pass area (which includes portions of Palm Springs, Desert Hot Springs, and Coachella Valley) have become somewhat of a symbol of the area. The technology as well as the total size and number of wind

turbines creates a spectacle that attracts tourists and there are numerous companies that offer tours to view the area; however, before its development, the wind farm was seen as a potentially immitigable significant visual effect for travelers through the area.

Visual Effect Significance on Sensitive Viewing Areas

Figures 5.13-17 through 5.13-26, depicting existing and simulated views from each selected KOP, aided in verifying Solar Two Project-related effects. The simulations served to present a representative sample of the existing landscape settings contained within the VSOI, as well as an illustration of how the Project may look from specific key viewing locations. They also aided in assessing visual effect significance. Table 5.13-2, Visual Effect Susceptibility – Sensitive Viewing Areas; Table 5.13-3, Visual Effect Severity – Sensitive Viewing Areas; and Table 5.13-5, Visual Effect Significance – Sensitive Viewing Areas, illustrate the visual effect susceptibility, severity, and resultant significance on sensitive viewing areas, respectively.

Significant effects are anticipated for the Plaster City Open Area to the north (represented by KOP #1). Without mitigation, there may be significant visual effects to residences adjacent to the east or west (represented by KOP #2). There may be less than significant effects at the agriculturally related homes to the south with views of the proposed transmission line. For travelers along I-8, and to the majority of other sensitive viewers within the region, with the construction, operation, maintenance, or long-term presence of the Solar Two Project Site, the Project has the potential to cause significant visual effects, especially as proximity to the Project increases.

These five sensitive viewing areas were identified as representative of viewers who would be most susceptible to visual effect within the viewshed as a result of the Project. A description of potential effects for these areas is described below.

Sensitive Viewing Area and KOP #1

This KOP is located within the Plaster City Open Area to the north of the Project Site (see Figure 5.13-3, KOP Location Map, and Figure 5.13-17, Existing View from KOP #1). The existing visual environment contains distant views of I-8, mountains and open desert. Middle ground views include various developments; U.S. Gypsum plant, Imperial Lakes SPA, and agricultural development to the east.

KOP #1 will have unobstructed direct views to the Solar Two Project and its structures. The Solar Two Project, in the absence of screening, would be highly visible because of the flat, open viewing conditions. However, while Project facilities would alter foreground views from this location, most viewers are likely to be engaged in OHV activities, which lower sensitivity. In addition, the viewshed has already been modified with the presence of existing transmission lines, the I-8 corridor, industrial development, and property fencing in the immediate vicinity.

Persons utilizing wilderness areas generally have an expectation of a high quality visual environment. In addition, potential recreational users are at an elevated viewing position, and would virtually have a direct line-of-sight to the Project vicinity. This view is consistent with a moderate to high degree of severity because, the number and type of potential viewers (recreational) increases viewer exposure and sensitivity, the distance to the site is small, and the presence of other industrial features that could distract from views of the Project area is minimal, with U.S. Gypsum plant being the prominent manmade feature.

**Table 5.13-5
Visual Effect Significance – Sensitive Viewing Areas**

Viewing Areas	Description	Visual Effect Susceptibility	Visual Effect Severity	Visual Effect Significance
<p>Sensitive Viewing Area and KOP No.1 (Figures 5.13-12, 5.13-17, and 5.13-22; see also Figure 5.13-3 for KOP location) – from Plaster City Open Area to the north of the Project Site 1 mile.</p>	<p>This KOP location represents the closest unobstructed view of the Solar Two Project from recreational viewers to the north. KOP #2 is located approximately 1 mile north of the Project Site. This KOP will have unobstructed direct views to the Solar Two Project. Like KOP #1, this view is also consistent with longer viewing durations of the Solar Two Project, as well as a high degree of severity because of the close distance. The Solar Two Project, in the absence of screening, would be highly visible because of the flat, open viewing conditions. The Project would create a strong visual contrast to the existing setting and significantly alter foreground views from this area. However, it would not obscure distant views to surrounding mountains. It should be noted, the viewshed has been slightly modified with the presence of existing industrial development, transmission lines, telephone poles/lines, and property fencing in the immediate vicinity.</p>	<p>High</p>	<p>High</p>	<p>Significant Impact</p>
<p>Sensitive Viewing Area and KOP No. 2 (Figures 5.13-13, 5.13-18, and 5.13-23; see also Figure 5.13-3 for KOP location) – from unobscured front yard view of adjacent residence to the north.</p>	<p>This KOP location represents the closest unobstructed view of the Solar Two Project from residents to the east. KOP #1 is located approximately 1.5 miles east of the Project Site. This view is consistent with longer viewing durations (i.e., from residential views) of the Solar Two Project. The Solar Two Project, in the absence of screening, would be highly visible because of the flat, open viewing conditions. This KOP will have unobstructed direct front yard views to the Solar Two Project; however, it should be noted, the viewshed has already been modified with the presence of industrial facilities, existing transmission lines, and property fencing in the immediate vicinity.</p>	<p>Moderate/High</p>	<p>Moderate</p>	<p>Potential Significant Impact Without Mitigation</p>
<p>Sensitive Viewing Area and KOP No. 3 (Figures 5.13-14, 5.13-19, and 5.13-24; see also Figure 5.13-3 for KOP location) – residential view of proposed transmission line.</p>	<p>This KOP location represents the midground view of the transmission line that is proposed in Phase II of the Solar Two Project. This view does not include the Project Site. The proposed transmission line would not create a significant change to the existing character of the visual environment. Current transmission towers represent a co-dominant scale, form, and line contrast to the existing setting and the additional line would blend in with the existing structures. Therefore, viewers from this residence are considered to have a moderate to low sensitivity and less-than-significant effects are expected.</p>	<p>Moderate/Low</p>	<p>Low</p>	<p>Less than Significant</p>

**Table 5.13-5
Visual Effect Significance – Sensitive Viewing Areas**

Viewing Areas	Description	Visual Effect Susceptibility	Visual Effect Severity	Visual Effect Significance
<p>Sensitive Viewing Area and KOP No. 4 (Figures 5.13-15, 5.13-20, and 5.13-25; see also Figure 5.13-3 for KOP location) – representative views from I-8 eastbound near Ocotillo Wells.</p>	<p>This KOP location represents the direct view to the Solar Two Project for travelers to and from El Centro as well as users within the Ocotillo Wells area. This KOP was selected due to the open space/sensitive resource area designation of the surrounding areas as well as the panoramic and elevated views of the Project area. This view is consistent with a low degree of severity because of the distance from the site and the various cultural modifications that lie within the middle ground/background which distract from views of the Project area. Also, Project features appear small in the broad context of the Imperial Valley and the Main Services Complex are the only Project feature that breaks the low horizontal line of the proposed facility. The Solar Two Project is not anticipated to create a significant visual effect to travelers within this area.</p>	<p>Moderate</p>	<p>Moderate/Low</p>	<p>Potential Significant Impact Without Mitigation</p>
<p>Sensitive Viewing Area and KOP No. 5 (Figures 5.13-16, 5.13-21, and 5.13-26; see also Figure 5.13-3 for KOP location) – representative views from I-8 westbound near Dunaway Road onramp.</p>	<p>This KOP location represents the closest unscreened view to the Solar Two Project for travelers to and from El Centro as well as users within the Ocotillo Wells area. This KOP was selected due to the immediate and direct views of the Project area. This view is consistent with a high degree of severity because of the dominance of the Project features that lie within foreground views of the Project area. The Solar Two Project has the potential to create a significant visual effect to travelers within this area.</p>	<p>Moderate</p>	<p>High</p>	<p>Significant Impact</p>

Source: URS Corporation, 2008.

Notes:

I-8 = Interstate 8
 KOP = key observation point

As shown in Figure 5.13-22, Proposed View from KOP #1, proposed structures would not extend beyond existing ridgelines created by distant mountains or obscure and/or block panoramic views.

Visual effect susceptibility from this location is characterized as moderate/high (see Table 5.13-2, Visual Effect Susceptibility – Sensitive Viewing Areas). Visual effect severity from this location is characterized as moderate/high (see Table 5.13-3, Visual Effect Severity – Sensitive Viewing Areas). Thereby, aesthetic effect significance from this location is classified as significant (see Table 5.13-5, Visual Effect Significance – Sensitive Viewing Areas).

Sensitive Viewing Area and KOP #2

This viewing area is representative of the areas to the east of the Project Site (see Figure 5.13-3, KOP Location Map, and Figure 5.13-18, Existing View from KOP #2). The visual environment contains distant views of the mountains, I-8, and open desert expanse to the west. Background views include the U.S. Gypsum plant. In the middle ground Imperial Lakes SPA appears as a large group of non native trees to the north of Evan Hewes Highway, and surrounding residential development can be seen in the foreground to the north and east of this KOP.

Existing views across the Solar Two Project Site from this KOP virtually consist of an open expanse of land with panoramic views to distant mountains. This KOP will have unobstructed direct front yard views to the Solar Two Project and its structures. The Solar Two Project, in the absence of screening, would be highly visible because of the flat, open viewing conditions. The Project would create a strong visual contrast to the existing setting and significantly alter middle ground views from this residence. However, the Project would not obscure distant/panoramic views of the mountains from this KOP (see Figure 5.13-23, Proposed View from KOP #2).

As stated, viewer sensitivity is a measure of the degree of concern for change in the visual character of a landscape and considers user attitude and adjacent land use. Residential views are permanent and residents are generally highly aware of changes to their immediate visual environment. While the landscape surrounding this residence is classified as retaining a low ESIL, the community in which these residents live specifically appeals to those who wish to live in a remote rural setting. Thus, contingent on resident reaction to the Solar Two Project, significant visual effects on these sensitive viewers due to the construction/operation of the Solar Two Project may occur. It is expected that some direct effects could be mitigated through the use of visual resources mitigation measures (VRMMs) (see Section 5.13.4, Mitigation Measures). Effects may be reduced to less than significant through application of proper mitigation measures.

Visual effect susceptibility from this location is characterized as high (see Table 5.13-2, Visual Effect Susceptibility – Sensitive Viewing Areas). Visual effect severity from this location is characterized as moderate to high (see Table 5.13-3, Visual Effect Severity – Sensitive Viewing Areas). Thereby, aesthetic effect significance from this location is classified as significant without mitigation (see Table 5.13-5, Visual Effect Significance – Sensitive Viewing Areas). Mitigation measures may ameliorate the effects to the visual resources at this location to less than significant; however, at this time, visual impacts are expected to be significant.

Sensitive Viewing Area and KOP #3

The Solar Two Project would not be visible from this location (see Figure 5.13-3, KOP Location Map, and Figure 5.13-19, Existing View from KOP #3). However, the transmission lines running along the existing ROW through Yuha ACEC would be clearly visible from this residence. The visual environment of this area includes many agriculturally related developments with few homes. Canals divide the landscape and provide water features to the views. Currently there are already transmission lines running through the southwestern angle of view.

As shown in Figure 5.13-24, Proposed View from KOP #3, the Project would not create a significant change to the existing view towards the transmission lines. In terms of scale, form, and line contrast to the existing setting, there are existing lines and the additional lines and associated towers will blend in with existing structures.

Residents are considered sensitive as they are focused on their habitual surroundings and activities and have long viewing durations. However, the residence at KOP #3 does not have a line of sight to the Project Site. The proposed transmission lines are in the middle to background of existing views and are likely to blend in with existing structures. The visual change represented by the Project transmission lines and towers is minimal and viewer sensitivity is likely to be moderate. Visual susceptibility from this location is characterized as moderate (see Table 5.13-2, Visual Effect Susceptibility – Sensitive Viewing Areas). Visual effect severity from this location is characterized as low (see Table 5.13-3, Visual Effect Severity – Sensitive Viewing Areas). Therefore, aesthetic effects to this KOP are expected to be less than significant (see Table 5.13-5, Visual Effect Significance – Sensitive Viewing Areas).

Sensitive Viewing Area and KOP #4

The mountainous region to the west of the Project area is approximately 8 to 10 miles away and therefore considered to have distant views of the site (see Figure 5.13-3, KOP Location Map, and Figure 5.13-20, Existing View from KOP #4). KOP #4 is approximately 5 miles from the Project Site along the eastbound I-8 as it descends into the Imperial Valley. This view has an elevated position and would have virtually direct line-of-sight views of the Project Site and vicinity. There is a moderately high amount of traffic along this highway (13,200 average annual daily traffic), and therefore a high number of potential viewers. Views of the site are expansive and the Project would increase in dominance as the traveler approaches the Project area. The middle ground views include the community of Ocotillo Wells and highway signs and improvements.

The Project would become a more prominent feature as the driver approaches the Project area. However, due to distance and the colors of the surrounding landscape, in addition to middle and foreground distraction, the effect of the Project on the visual environment is moderate. As shown in Figure 5.13-25, Proposed View from KOP #4, the Project would create a moderate change to the existing view towards the site from the highway representing a co-dominant scale, with a similar form and line contrast to the existing setting. Project features appear smaller in the broad context of the Imperial Valley. The reflective properties of the major components comprising the Solar Two Project (the SunCatchers) allow the Project to blend in with the

horizon lines and minimize visual effect to background views such as those represented by KOP #4. Also, a persistent haze, characteristic of the air quality in the area, often impairs clarity in distant views.

Visual effect susceptibility from this location is characterized as moderate (see Table 5.13-2, Visual Effect Susceptibility – Sensitive Viewing Areas). Visual effect severity from this location is characterized as moderate (see Table 5.13-3, Visual Effect Severity – Sensitive Viewing Areas). Thereby, per Table 5.13-1, Visual Effect Significance Matrix – Sensitive Viewing Areas, aesthetic effect significance from this location has the potential to be significant without mitigation (see Table 5.13-5, Visual Effect Significance – Sensitive Viewing Areas). Mitigation measures may ameliorate the effects to the visual resources at this location to less than significant.

Sensitive Viewing Area and KOP #5

KOP #5 represents the closest and most imposing view of the Solar Two Project of all KOPs (see Figure 5.13-3, KOP Location Map, Figure 5.13-21, Existing View from KOP #5, and Figure 5.13-26, Proposed View from KOP #5). This view is from the westbound lane of I-8 near the Dunaway Road on-ramp. The Solar Two Project Site occupies the entire foreground landscape directly to the north of the interstate. The existing visual environment at this point currently includes views of U.S. Gypsum, open desert, and residential and agricultural development. The view also includes distant views of the mountains.

I-8 has a high number of daily travelers (approximately 13,200 travelers/average annual daily traffic), and generally, travelers are considered less sensitive as they are focused on driving and have short viewing durations. While I-8 borders the southern boundary of the Project Site, it is not an officially designated state or local scenic highway or route. However, the proximity of the site to I-8 will magnify viewer sensitivity. Therefore, from a regional perspective, views along I-8 are considered to have a moderate/high sensitivity.

The effect of Project features on views from this stretch of interstate will be imposing and will block most of the view across the desert to the north, northwest, and northeast. Mountain views will be slightly obscured. Form, line and texture of the visual environment will change dramatically. The visual character of this area will change from open space to a regional center for industrial scale solar power production. This may have an alternate effect of spurring tourism to the area to view the Project. However, it is acknowledged that views from this KOP may suffer adverse effects.

Visual effect susceptibility from this location is characterized as moderate/high (see Table 5.13-2, Visual Effect Susceptibility – Sensitive Viewing Areas). Visual effect severity from this area is characterized as high (see Table 5.13-3, Visual Effect Severity – Sensitive Viewing Areas). Therefore, Project implementation has the potential to cause significant effects to visual resources in this area (see Table 5.13-5, Visual Effect Significance – Sensitive Viewing Areas).

Lighting

Lighting will be required for safe and efficient operation of the Solar Two Project and will be limited to the following areas:

- exterior area lighting will be limited to the Main Services Complex,
- sharp cut-off, low wattage lights at major intersections of on-site roadways,
- emergency/critical lighting, and
- construction laydown area lighting.

The lighting system is intended to provide personnel with illumination for Project operation under normal conditions, means of egress under emergency conditions, and emergency lighting to perform manual operations during a power outage of the normal power source. The proposed lighting system would be designed and installed to meet Occupational Safety and Health Administration minimum standards, and to offer maximum illumination of operating work areas while minimizing off-site illumination. Lighting will be directed on-site to avoid backscatter, and shielded from public view to the extent practicable. See Section 3.0, Project Description and Location, for a further description of lighting fixtures.

Under certain conditions during construction-related activities, slightly higher amounts of backscatter lighting may be apparent to viewers immediately adjacent to the Project Site. These lights protect construction workers during this phase of the Project. In addition, while heavy construction will be scheduled to occur between 0700 and 1900, Monday through Friday, additional hours may be necessary to make up schedule deficiencies or to complete critical construction activities. Some activities will continue 24 hours per day, 7 days per week. These activities include, but are not limited to, SunCatcher assembly, refueling equipment, staging material for the following day's construction activities, quality assurance/quality control, and commissioning. On completion of construction, night lighting at the site will be substantially reduced and less noticeable to surrounding viewers; therefore, visual effects related to lighting for construction activities would be temporary. Although the visual impacts related to construction are considered temporary, due to duration and scale, they are likely to be significant. Some mitigation of these effects is possible; however, overall the visual resources of the area will experience temporary adverse impacts.

Lighting design for the Solar Two Project would be consistent with CEC lighting requirements and local LORS.

Currently, little nighttime lighting is produced within the VSOI and consists mainly of external lighting of residences in the area. While the Solar Two Project may slightly add to existing lighting, the Project would not significantly increase the existing night lighting in the Project area. Overall, the addition of the Solar Two Project is not anticipated to create significant night lighting effects from backscatter light and/or night lighting a nearby viewer may experience when looking toward the site.

Federal Aviation Agency Advisory Circular 70/7460-1K requires that all airspace obstructions over 200 feet in height or in close proximity to an airfield have obstruction lighting. The tallest structures proposed on-site are the transmission towers at between 70 and 110 feet high. Since the transmission poles are below the 115 feet height limit for this part of Imperial County, and there is no airfield in close proximity to the site, the poles will not require obstruction lighting. Furthermore, as the proposed transmission poles will be immediately adjacent to the existing ROW, no effects to aircraft operation are expected.

Glint and Glare

As described in Section 3.0, Project Description and Location, SunCatchers focus the sun's rays on a receiver of the Solar Two Project system, which is an insulated cavity used to produce energy, located approximately 12 feet above the reflectors for a maximum height of 45 feet. The SunCatchers are designed so that sun rays from the mirrors would be reflected directly at the receiver and not at surrounding viewers or overhead. Flat glass is attached to corrugated steel backing sheet that is supported by a weldment structure with the desired curvature.

The sun's position in the sky is dependent on the time of day as well as time of year. Because of the way SunCatchers are oriented within the solar field, the amount of rotation during operation each day is minimal, ranging through the course of the year from starting position to noon and then back to starting position (see Section 3.0, Project Description and Location). The SunCatchers do not track the sun in the east/west direction, but track based on sun angle above the horizon that varies with the season (higher in summer, lower in winter).

Glint and glare from the mirrors is not anticipated to be significant to the area residents represented by KOP #1. Potential glint and glare effects to these sensitive viewers within the Solar Two Project area are anticipated to be infrequent based on the position and orientation of the mirrors on-site. During final design, if design analysis indicates that significant glint and glare effects would occur, potential mitigation should be proposed.

KOP #5 represents traveler views immediately adjacent to the Project. The potential for glint and glare from the mirrors at this location is higher than at the other KOP locations. However, due to the orientation of the mirrors, it is not anticipated that any distracting, blinding, or hazardous glint and glare effects will occur at this KOP location. Significant impacts to visual resources at this KOP are most likely to be related to the scale of Project features and the total area covered by the Project, while impacts resulting from glint and glare at this location are expected to be less than significant.

Military Airfields

There are local military and civilian airfields located within the Imperial Valley although none are located within 5 miles of the Project area. Aircraft utilizing nearby military airfields are unlikely to be impacted by glint and glare from the Solar Two Project. Each SunCatcher is designed to focus light falling on it into a receiver positioned above it, thus limiting the potential for stray reflections. Views and/or potential glint and glare from the Solar Two Project are anticipated to be similar to a body of water to pilots in aircraft flying over the site. As local airfields are more than 5 miles from the Solar Two Project Site, potential glint and glare from the solar reflectors is not expected to distract and/or affect pilots during landing or take-off operations. The conclusion of this analysis is supported by real-world experience under similar

conditions at the Kramer Junction Solar Electric Generating Station located in Barstow, California. The Kramer Junction facility is located within the flight path of Edwards Air Force Base. According to the visual analysis prepared for the Carrizo Energy Solar Farm (07-AFC-08) CEC staff indicated that pilots flying into the base have not reported any glare distraction from the nearby solar facility impacting their flight/landing operations.

In addition, the AFC prepared for the Victorville 2 Hybrid Power Project (07-AFC-1), identified that the United States Air Force conducted overflights over an existing solar energy facility (the solar energy generating station power plant in the Mojave Desert at Harper Lake) to determine if the facility produced visual distractions for pilots. It was documented that no significant visual distractions were observed during the overflights.

Given CEC staff accounts and documentation reviewed within the Victorville 2 Hybrid Power Project AFC (07-AFC-1), it is not expected that the Solar Two Project solar array would cause adverse effects to aviation operations at local military airfields.

Landscaping

Landscaping is included as part of the Solar Two Project; however, a landscaping/screening plan has not been prepared and the extent and location of proposed landscaping is not known at this time. A Landscape/Screening Plan will be prepared during final Project design that may reduce potential visual effects.

Indirect and Construction-related Effects

The 100-acre main construction laydown area to the east of Dunaway Road will include construction laydown for the Project Site, staff parking, equipment storage, a fueling station, a 25-acre staging area, and construction offices. Construction access to the Solar Two Project Site will be from access roads joining Dunaway Road on the east and Evan Hewes Highway on the northwest.

Project Site preparation includes site grading and slight terracing (due to the slope of the site and existing washes) to accommodate the Project on the existing landscape; however, major cuts and fills are not anticipated. Excavation work will consist of the removal, storage, and/or disposal of earth, sand, gravel, vegetation, organic matter, loose rock, and debris to the lines and grades necessary for construction. The main construction laydown area is relatively flat and thus requires little grading.

Geotech fabric and gravel will be removed and shallow swales and/or depressions will be created for revegetation. Within the main construction laydown area, permanent crossings will be required along the access road, as shown in Section 3.0, Project Description and Location. Permanent crossings within the laydown area are low profile and are not expected to be visible from adjacent areas. Permanent crossings will consist of culverts able to support the large construction machinery associated with the Project. See also Section 3.0, Project Description and Location, for more information relating to crossings and earthwork.

The construction period is expected to last 40 months. The workforce is expected to average roughly 360 construction workers, with 731 workers in the peak month. The workforce is expected to come mainly from the Imperial County area (see Section 5.10, Socioeconomics).

During the Solar Two Project construction period, construction activities and construction materials, equipment, trucks, temporary structures, and vehicles, would be highly visible to surrounding areas due to the flat, open viewing conditions on the Project Site and construction laydown areas. Because the Solar Two Project Site and laydown areas are largely undeveloped, such construction activities at the Project Site and within the laydown area will contrast significantly with the existing natural character of the area; however, construction activities within/adjacent to the existing transmission line ROW along the northern boundary of the site are not anticipated to contrast significantly with maintenance and other operational activities that occur periodically in this ROW.

The major source of effects to the visual environment from the Project is the construction and development of a spatially dominant industrial power facility. Visual changes associated with construction activities at both the Solar Two Project Site and the construction laydown areas would create potentially significant visual effects to sensitive viewers within the Project vicinity; construction activities would be conducted over a four-year period (40 months). Indirect effects associated with the construction, operation, and long-term presence of the Solar Two Project and ancillary facilities may include effects associated with fugitive dust, night lighting, and the presence of construction and operation equipment. Construction activities will be conducted in a manner that minimizes (visible) dust emissions and light pollution.

The Project would be clearly visible from I-8 and would have an effect on the viewshed from the road. The form, line, and texture of the visual environment would change as a result of the Project. The visual character of the area would change from open space with some additional industrial activities, to a regional center for large-scale solar power production. The change could be perceived differently by different people. For some, the Project may detract from the desert environment, but for others, the Project may create positive visual interest. As one of the first large-scale projects of its kind in California, the solar technology has the potential to become a tourist attraction, drawing visitors from the energy industry, the environmental community, and the local community, including providing potential education opportunities and government/political figures who seek direct personal experience of progressive renewable energy solutions.

5.13.3 Cumulative Effects

The Solar Two Project and other projects in the vicinity are not expected to result in significant cumulative effects to visual resource areas. There are several proposed projects within the vicinity but these projects are not clearly visible to each other. They are discussed in Section 5.18, Cumulative Impacts. The remaining projects within the VSOI include minor construction projects, such as manufactured and mobile home permits, mobile home foundations, carport additions, roof replacements, deck additions, and residential renovations.

The areas within the VSOI are generally characterized by distant views of mountains and vast open expanses of desert. Development to the east includes small-scale agricultural/dry-farming and livestock activities, supported by small communities and other sparsely populated areas to the west of the Project Site. The size and scale of the Project in conjunction with any other project of its type, size, or scale, could potentially result in cumulative Project effects on the visual environment.

All permitted projects within the nearby Project vicinity (approximately 10 miles) of the Project Site include manufactured and mobile home permits and/or mobile home foundations, or residential home permits. All other permitted projects are located over 10 miles from the Project Site. Thus, as mentioned above, no significant cumulative effects have been identified as a result of the construction, operation, maintenance, or long-term presence of the Solar Two Project and other projects in the area. For further discussion of cumulative effects, see Section 5.18, Cumulative Impacts.

Currently there are applications for ROWs for solar and wind power facilities in the Project vicinity (see Section 5.18, Cumulative Impacts). The areas proposed for solar or wind power facility ROWs (see Figure 5.18-2, Pending BLM Applications Near Project Area) in the vicinity of the Project represent a vast swath of land running from the eastern base of the Peninsular Mountains to the outskirts of the town of Seeley. Although there are several projects of predominant size and scale proposed within the Project vicinity, there is not enough information available about their visual appearance to determine the extent of any significant cumulative effect that would be caused. If the ROW permits are granted and large-scale solar and wind power facilities are built, then there is the potential for significant impacts to the visual resources of the area resulting specifically from the cumulative effects of a succession of intensive development in an area that has historically been left to open space and recreation.

Conversely, there could be some positive cumulative impacts related to the development of these areas as a regional and/or national center for alternative renewable energy. Positive visual resource effects could draw tourists, students, and researchers to the area, and appeal to residents who are interested in working in the field of renewable energy.

5.13.4 Mitigation Measures

The Solar Two Project design inherently includes mitigation measures. For example, one reason the site location was chosen is because of its proximity to the existing Imperial Valley Substation, the existing transmission line system, and an open expanse of area with very little existing development. By locating the Solar Two Project there, it can be tied into the existing grid via a relatively short transmission line which will parallel the existing Southwest Powerlink line, thereby reducing the visual clutter of the area as best possible.

In addition, a landscaping plan and fence will be included in the final design of the Solar Two Project, and may lower effect severity through effective use of screening. Furthermore, a number of Project features have been designed to help minimize visual effects. These include, but are not limited to, shielding light sources and using non-reflective materials for Project components other than solar reflector mirrors (see Table 5.13-4, Major Components, Structures, and Equipment).

Although the Solar Two Project includes features that reduce visual effects from the construction/operation of the Project, potentially significant visual effects on adjacent sensitive recreational users and residential viewers may still occur. Suggested VRMMs to reduce potentially significant visual effects to less than significant levels are provided below.

5.13.4.1 VRMM-1

Prepare a Conceptual Landscaping Plan at a 1:40 scale, per CEC requirements for screening purposes. The plan shall include information on the type of plant species proposed; their size, quantity, and spacing at planting; expected heights at 5 years and maturity; and expected growth rates. Proposed landscaping should also include:

- use of native limited height landscaping materials around Project perimeter to ensure proposed landscaping does not further obstruct views of distant hillsides, and
- suggested off-site planting on adjacent residential properties (if landowner is interested) to assist with screening.

5.13.4.2 VRMM-2

Use of non-reflective opaque perimeter fencing.

5.13.4.3 VRMM-3

Prepare a Lighting Mitigation Plan for CEC review/approval to include the following:

- design/install external lighting that incorporates commercially available fixture hoods/shielding, with light directed downward or toward the area to be illuminated,
- light fixtures shall not cause obtrusive spill light beyond the Project boundary,
- all lighting shall be of minimum necessary brightness consistent with operational safety and security, and
- direct lighting does not illuminate the nighttime sky.

5.13.4.4 VRMM-4

Use non-reflective or matted steel/metal surfaces on supporting structures:

- use matted and non-reflective desert colors for exterior surfaces of structures where possible, and
- use matted and non-reflective desert palette colors on supporting pedestals.

5.13.4.5 VRMM-5

Use temporary screening of construction and/or staging areas:

- use screening of construction and staging areas to minimize visual effects, and
- use adequate signage and safety marking of construction areas.

5.13.5 Compliance with LORS

Applicable visual resources LORS are summarized in Table 5.13-6, Summary of LORS – Visual Resources, and described below.

5.13.5.1 Federal

The Solar Two Project is located on property under the jurisdiction of Imperial County; however, the Project Site is on BLM-administered public lands. VRM methodology is an effective assessment tool that categorizes effects based on changes to scenic quality, sensitivity levels, and distance zones. VRM guidelines were considered for this Project. These are all discussed in detail in Section 5.13.1, Affected Environment. Overall, the Project is consistent with all federal aesthetic LORS.

5.13.5.2 State

No State-designated scenic highways or highways eligible for designation were identified within the VSOI. Furthermore, no other area managed by the state was identified for which the Solar Two Project would be required to adhere to aesthetic LORS; therefore, compliance with State aesthetic LORS is considered to be compliance with CEQA Guidelines.

5.13.5.3 Local

The Solar Two Project is located on unincorporated land within Imperial County. Local LORS were only considered for Imperial County. The property is zoned Government Special Public with a secondary zoning as open space area by Imperial County. Allowable uses within this zone include electricity generation, subject to the conditional use permit required by the specific use standards. Current use in the surrounding area includes a mixed bag of industrial use, open space, rural residential, and recreational use.

The Imperial County General Plan contains goals and policies relating specifically to minimizing effects to scenic areas and visual resources within the County. Also, the Imperial County General Plan (2006) has several objectives and policies outlined relating to the preservation of scenic resources. The Project Site is located within the Ocotillo/Nomirage Community Planning Area. Goals or policies relating to scenic areas and visual resources within the planning area include:

- Ocotillo/Nomirage Community Area Plan, Community and Beautification Policy Program 1: Any proposed development within the Ocotillo/Nomirage Community Area visible from Imperial Highway, I-8, or State Highway 98 shall be required to meet architectural standards and landscape requirements.

Conformance with this policy will require Solar Two to work with the County to conform with Conditional Use Permit requirements regarding architectural standards and landscape requirements.

Table 5.13-6, Summary of LORS – Visual Resources, provides a list of local LORS, as well as the section number in which the Project’s conformance/applicability to these LORS is discussed.

The Solar Two Project will conform to all applicable local LORS related to the preservation of areas identified as retaining high scenic value. Based on the inventory of scenic attractiveness and ESILs, areas retaining high scenic value were not identified within the VSOI. Therefore, compliance with local aesthetic LORS will be maintained.

**Table 5.13-6
Summary of LORS – Visual Resources**

LORS	Requirements	Conformance Section	Administering Agency	Agency Contact
Federal Jurisdiction				
Visual Resource Manual	To manage public lands in a manner which will protect the quality of the scenic (visual) values of these lands.	Section 5.13.5.1	Bureau of Land Management	N/A
State Jurisdiction				
Application for Certification Requirements	Rules of Practice and Procedure and Power Plant Site Certification Regulations, Appendix B.	See Data Adequacy Worksheet Section 5.13.5.2	California Energy Commission	Paula David 916-654-4228
State Scenic Highway Requirements	Requirements are applicable to State-designated scenic highways.	Section 5.13.5.2 There are none in the Project area	California Department of Transportation	N/A
Local Jurisdiction				
Imperial County General Plan, Space Scenic Highways <i>Objective 4.3</i>	Protect areas of outstanding scenic beauty along the highways and protect the aesthetics of those areas.	Section 5.13.5.3	Imperial County Planning Department	James Minnick 760-482-4675
Imperial County General Plan, Space Scenic Highways <i>Objective 4.5</i>	Develop standards for aesthetically valuable sites. Design review may be required so that structures, facilities, and activities are properly merged with the environment. The aesthetic character of the Project shall unify and enhance	Section 5.13.5.3	Imperial County Planning Department	James Minnick 760-482-4675
Imperial County General Plan, Conservation and Open Space <i>Goal 7</i>	The aesthetic character of the region shall be protected and enhanced to provide a pleasing environment for residential, commercial, recreational, and tourist activity.	Section 5.13.5.3	Imperial County Planning Department	James Minnick 760-482-4675
Imperial County General Plan, Conservation and Open Space <i>Objective 7.1</i>	Encourage the preservation and enhancement of the natural beauty of the desert and mountain landscape.	Section 5.13.5.3	Imperial County Planning Department	James Minnick 760-482-4675
Imperial County General Plan, Conservation and Open Space <i>Goal 10</i>	Open space shall be maintained to protect the aesthetic character of the region, protect natural resources, provide recreational opportunities, and minimize hazards to human activity.	Section 5.13.5.3	Imperial County Planning Department	Richard Cabanilla 760-482-4675

**Table 5.13-6
Summary of LORS – Visual Resources**

LORS	Requirements	Conformance Section	Administering Agency	Agency Contact
Imperial County General Plan, Conservation & Open Space <i>Objective 10.9</i>	Conserve desert lands, within the County's jurisdiction for wildlife protection, recreation, and aesthetic purposes.	Section 5.13.5.3	Imperial County Planning Department	Richard Cabanilla 760-482-4675
Imperial County General Plan, Development of Geothermal/ Alternative Energy Resources <i>Goal 1</i>	Imperial County supports and encourages the full, orderly, and efficient development of geothermal/alternative energy resources while at the same time preserving and enhancing, where possible, agricultural, biological, human, and recreational resources.	Section 5.13.5.3	Imperial County Planning Department	Richard Cabanilla 760-482-4675
Imperial County General Plan, Development of Geothermal/ Alternative Energy Resources <i>Objective 2.3</i>	Utilize existing easements or rights-of-way and follow field boundaries for electric and liquid transmission lines.	Section 5.13.5.3	Imperial County Planning Department	Richard Cabanilla 760-482-4675
Imperial County General Plan, Development of Geothermal/ Alternative Energy Resources <i>Objective 2.6</i>	Encourage/require alternative resource production to be in energy zoned areas to minimize off-site effects and lessen need for more transmission corridors.	Section 5.13.5.3	Imperial County Planning Department	James Minnick 760-482-4675
Imperial County General Plan, Development of Geothermal/ Alternative Energy Resources <i>Goal 5</i>	Require all major transmission lines to be located in designated corridors. Design lines for minimal effects on agriculture, wildlife, urban areas, and recreational activities.	Section 5.13.5.3	Imperial County Planning Department	James Minnick 760-482-4675
Ocotillo/Nomirage Community Area Plan <i>Objective 1.1</i>	Preserve and enhance the townscape of Ocotillo and community of Nomirage.	Section 5.13.5.3	Imperial County Planning Department and Ocotillo Community	Richard Cabanilla 760-482-4675
Ocotillo/Nomirage Community Area Plan <i>Goal 5 & Goal 7</i>	Preserve significant natural, cultural, and community character resources, air quality, and water quality.	Section 5.13.5.3	Imperial County Planning Department and Ocotillo Community	Richard Cabanilla 760-482-4675

**Table 5.13-6
Summary of LORS – Visual Resources**

LORS	Requirements	Conformance Section	Administering Agency	Agency Contact
Ocotillo/Nomirage Community Area Plan 5. Community and Beautification Policy Program 1	Any proposed development within the Ocotillo/Nomirage Community Area visible from Imperial Highway, Interstate 8, or State Highway 98 shall be required to meet architectural standards and landscape requirements.	Section 5.13.5.3	Imperial County Planning Department and Ocotillo Community	Richard Cabanilla 760-482-4675
Imperial County Code – Title 9, Land Use Ordinance. 90301.02 (K)	All exterior lighting shall be shielded and directed away from adjacent properties and away from or shielded from public roads.	Section 5.13.5.3	Imperial County Planning Department	Richard Cabanilla 760-482-4675
Imperial County Code – Title 9, Land Use Ordinance. 90301.02 (M)	Architectural design of proposed buildings shall be compatible with the surrounding neighborhood.	Section 5.13.5.3	Imperial County Planning Department	Richard Cabanilla 760-482-4675
Imperial County Code – Title 9, Land Use Ordinance. 90301.03 (A,B,C,D,E,F)	Require that industrial uses provide design features such as landscaping, setbacks, and landscape boundaries as buffers from different zoned parcels	Section 5.13.5.3	Imperial County Planning Department	Richard Cabanilla 760-482-4675

Source: URS Corporation, 2008.

Notes:

LORS = laws, ordinances, regulations, and standards

N/A = not applicable

5.13.5.4 Agencies and Agency Contacts

Agencies with jurisdiction to enforce LORS related to visual resources are shown in Table 5.13-7, Agency Contact List for LORS.

**Table 5.13-7
Agency Contact List for LORS**

No.	Agency	Contact	Address	Telephone
1	Bureau of Land Management El Centro Field Office	Lynda Kastoll	1661 South 4 th Street El Centro, CA 92243-2811	760-337-4400
2	California Energy Commission Energy Facilities Siting Division Community Resources Unit	Paula David, Supervisor, Community Resources	California Energy Commission Energy Facilities Siting - Environmental Office 1516 Ninth Street, MS 40 Sacramento, CA 95814-5504	916-654-4228

**Table 5.13-7
Agency Contact List for LORS**

No.	Agency	Contact	Address	Telephone
3	Imperial County Planning Department	James Minnick, Senior Planner, and Richard Cabanilla, Senior Planner	801 Main Street El Centro, CA 92243-2811	760-482-4675

Source: URS Corporation, 2008.

Note:

LORS = laws, ordinances, regulations, and standards

5.13.5.5 Permits Required and Permitting Schedule

Permits required pertaining to visual resources are shown in Table 5.13-8, Applicable Permits.

**Table 5.13-8
Applicable Permits**

Responsible Agency	Permit/Approval	Schedule
Imperial County	Conditional Use Permit	To be announced
Bureau of Land Management	Amendment to California Desert Conservation Area	12 months
California Energy Commission	Certification	12 months

Source: Discussions with Richard Cabanilla and James Minnick of Imperial County Department of Planning and Building, February 2008 through May 2008.

5.13.6 References

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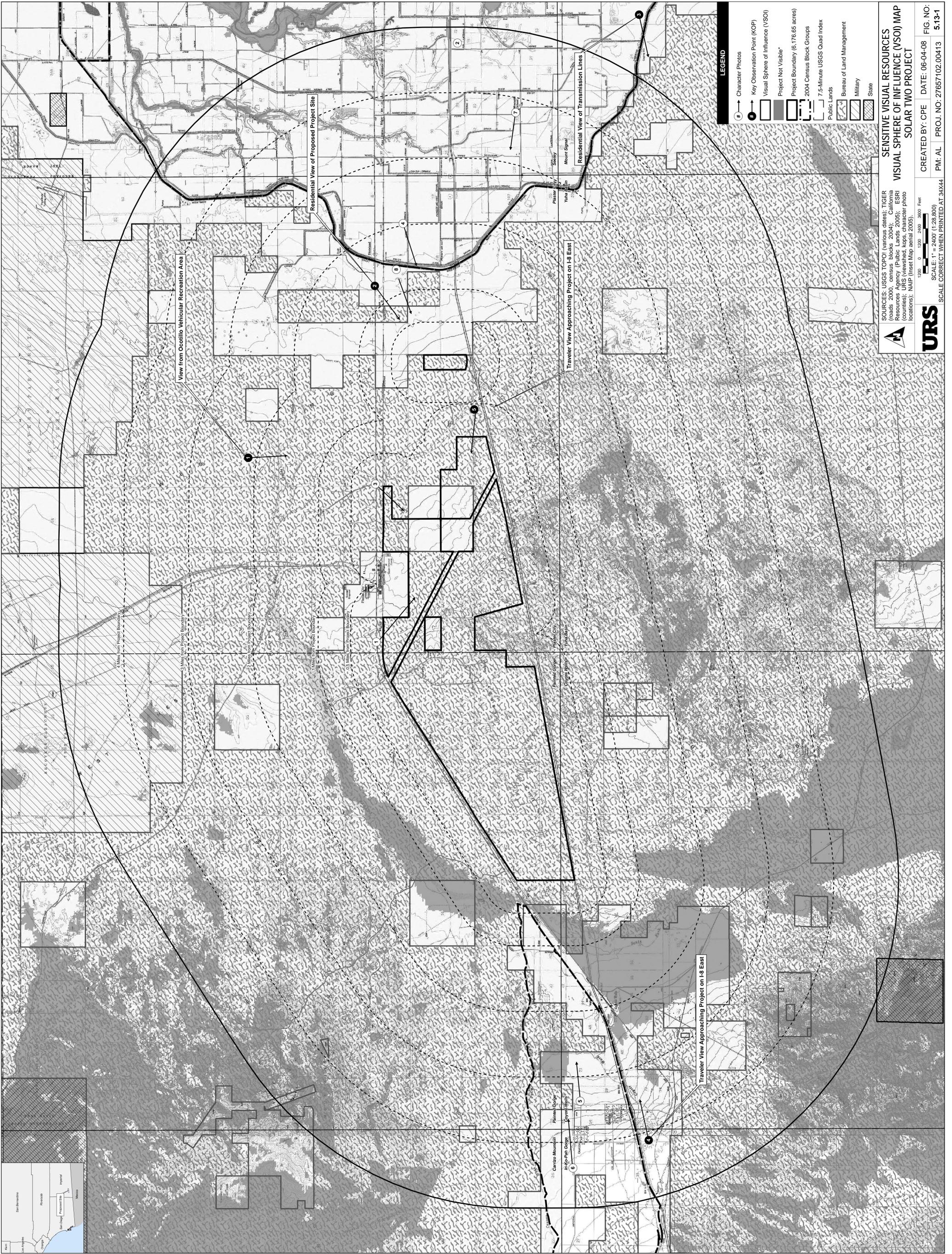
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Adequacy Issue:		Adequate	Inadequate	DATA ADEQUACY WORKSHEET		Revision No.	Date
Technical Area:		Visual Resources		Project:		Technical Staff:	
Project Manager:				Docket:		Technical Senior:	
SITING REGULATIONS		INFORMATION		AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS	
Appendix B (g) (1)	...provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.			Section 5.13.1.1 Section 5.13.1.2 Section 5.13.1.3 Section 5.13.1.4 Section 5.13.1.5 Section 5.13.2.1 Section 5.13.2.2 Section 5.13.3 Section 5.13.4			
Appendix B (g) (6) (A)	Descriptions of the existing visual setting of the vicinity of the project, the region that can be seen from the vicinity of the project, and the proposed project site. Include:			Section 5.13.1.1 Section 5.13.1.2 Section 5.13.2.2			
Appendix B (g) (6) (A) (i)	Topographic maps at a scale of 1:24,000 of the areas from which the project may be seen, identification of the view areas most sensitive to the potential visual impacts of the project, and the locations where photographs were taken for (g)(6)(E);			Figure 5.13-1			
Appendix B (g) (6) (A) (ii)	Elevations of any existing structures on the site; and			N/A			
Appendix B (g) (6) (A) (iii)	The visual properties of the topography, vegetation, and any modifications to the landscape as a result of human activities.			Section 5.13.1.2 Section 5.13.1.3 Section 5.13.1.5 Section 5.13.2.2			
Appendix B (g) (6) (B)	An assessment of the visual quality of those areas that will be impacted by the proposed project.			Section 5.13.1.5 Section 5.13.2.1 Section 5.13.2.2			

Adequacy Issue:		Adequate	Inadequate	DATA ADEQUACY WORKSHEET		Revision No.	Date
Technical Area:		Visual Resources		Project: Solar Two Project		Technical Staff:	
Project Manager:				Docket:		Technical Senior:	
SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER		ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS		
Appendix B (g) (6) (C)	After discussions with staff and community residents who live in close proximity to the proposed project, identify the scenic corridors and any visually sensitive areas potentially affected by the proposed project, including recreational and residential areas. Indicate the approximate number of people using each of these sensitive areas and the estimated number of residences with views of the project. For purposes of this section, a scenic corridor is that area of land with scenic natural beauty, adjacent to and visible from a linear feature, such as a road, or river.	Section 5.13.1.1 Section 5.13.1.2 Section 5.13.1.3 Section 5.13.1.4 Section 5.13.1.5					
Appendix B (g) (6) (D)	A description of the dimensions, color, and material of each major visible component of the project.	Section 5.13.2.2 Table 5.13-4					
Appendix B (g) (6) (E)	Full-page color photographic reproductions of the existing site, and full-page color simulations of the proposed project in the existing setting from each location representative of the view areas most sensitive to the potential visual impacts of the project.	Figure 5.13-17 through Figure 5.13-26					
Appendix B (g) (6) (F)	An assessment of the visual impacts of the project, including light and glare, and visible plumes.	Section 5.13.2.2					

Adequacy Issue:		Adequate	Inadequate	DATA ADEQUACY WORKSHEET		Revision No.	Date
Technical Area:		Visual Resources		Project:		Technical Staff:	
Project Manager:				Docket:		Technical Senior:	
SITING REGULATIONS		INFORMATION		AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS	
Appendix B (h) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, and permits applicable to the proposed project, and a discussion of the applicability of each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed;			Table 5.13-6 Table 5.13-8			
Appendix B (h) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.			Table 5.13-8			
Appendix B (h) (2)	A discussion of the conformity of the project with the requirements listed in subsection (h)(1)(A).			Section 5.13.5.1 Section 5.13.5.2 Section 5.13.5.3 Table 5.13-6 Table 5.13-7			
Appendix B (h) (3)	The name, title, phone number, and address, if known, of an official within each agency who will serve as a contact person for the agency.						
Appendix B (h) (4)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.			Table 5.13-8			



**SENSITIVE VISUAL RESOURCES
VISUAL SPHERE OF INFLUENCE (VSOI) MAP
SOLAR TWO PROJECT**

SOURCES: USGS TOPOI (various dates); TIGER (roads 2000, census blocks 2004); California Resources Agency (Public Lands 2005); ESRI (counties); URS (viewshed, kops, character photo locations); NAIP (Inset Map aerial 2005).

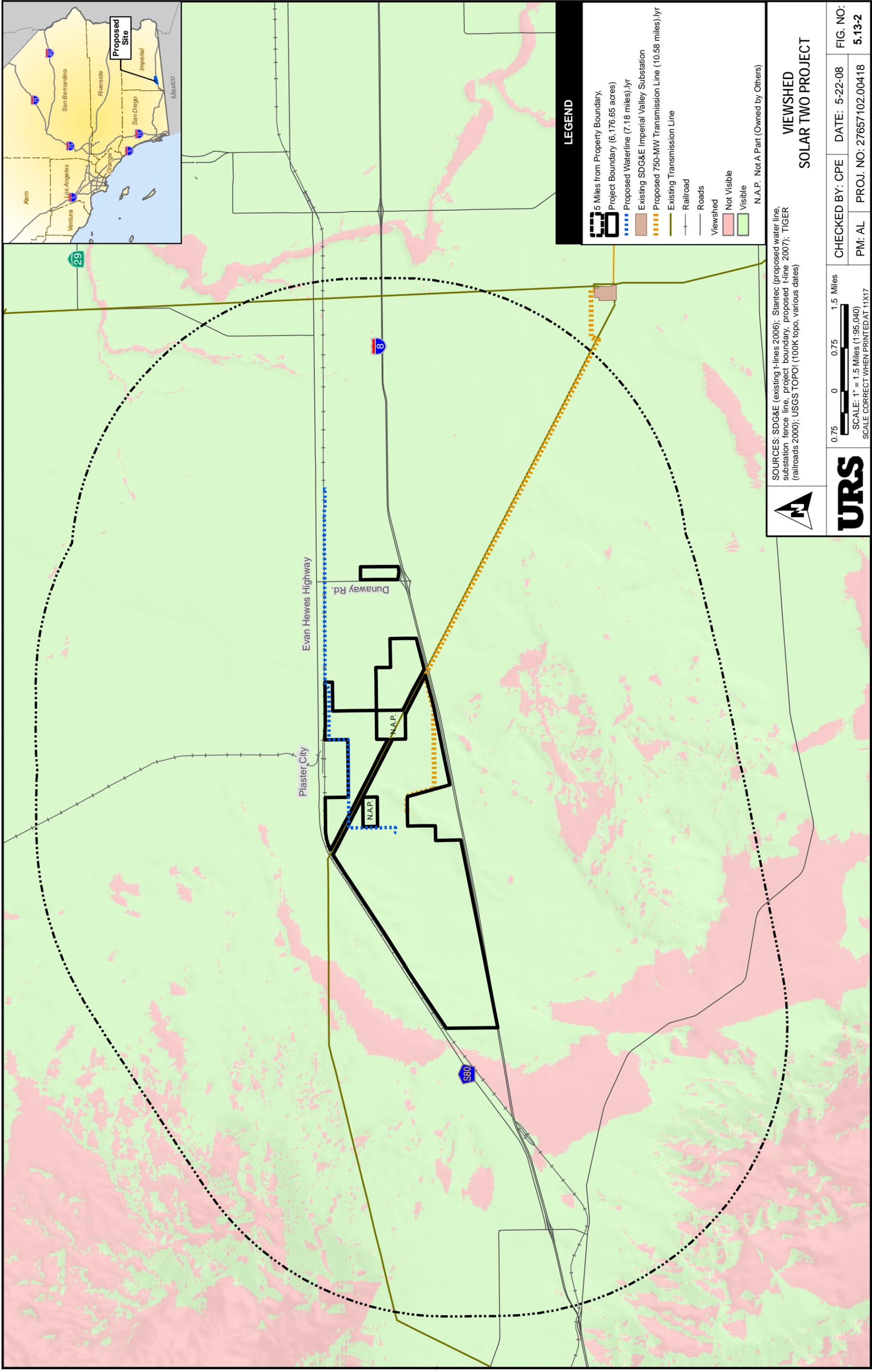
CREATED BY: CPE DATE: 06-04-08 FIG. NO.: 5.13-1
 PM: AL PROJ. NO: 27657102.00413
 SCALE CORRECT WHEN PRINTED AT 34X44



SCALE: 1" = 2400' (1:28,800)



Source: www.google.com/maps/place/Solar+Two+Project/@33.25,-112.05,15z



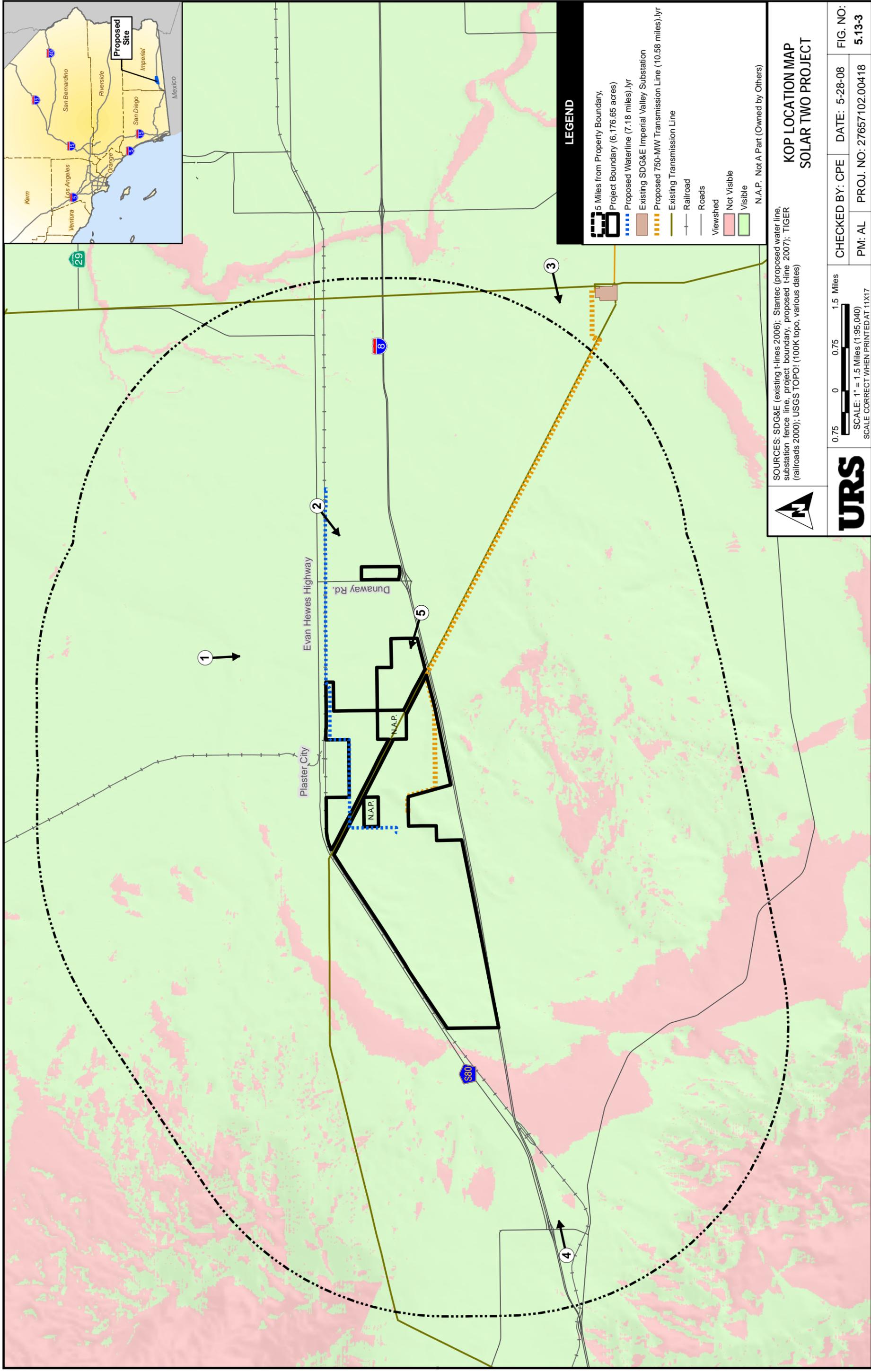
SOURCES: SDG&E (existing t-lines 2006); Stantec (proposed water line, substation fence line, project boundary, proposed t-line 2007); TIGER (railroads 2000); USGS TOPOI (100K topo, various dates)

VIEWSHED SOLAR TWO PROJECT



CHECKED BY: CPE	DATE: 5-22-08	FIG. NO:
PM: AL	PROJ. NO: 27657102.00418	5.13-2





LEGEND

- 5 Miles from Property Boundary.
- Project Boundary (6,176.65 acres)
- Proposed Waterline (7.18 miles).lyr
- Existing SDG&E Imperial Valley Substation
- Proposed 750-MW Transmission Line (10.58 miles).lyr
- Existing Transmission Line
- Railroad
- Roads
- Viewshed
- Not Visible
- Visible
- N.A.P. Not A Part (Owned by Others)

SOURCES: SDG&E (existing t-lines 2006); Stantec (proposed water line, substation fence line, project boundary, proposed t-line 2007); TIGER (railroads 2000); USGS TOPOI (100K topo, various dates)



**KOP LOCATION MAP
SOLAR TWO PROJECT**

0.75 0 0.75 1.5 Miles
SCALE: 1" = 1.5 Miles (1:95,040)
SCALE CORRECT WHEN PRINTED AT 11X17

CHECKED BY: CPE	DATE: 5-28-08	FIG. NO:
PM: AL	PROJ. NO: 27657102.00418	5.13-3



Imperial Lakes SPA and Project Site

Path: G:\gis\projects\1577\22238980\mxd\visual_char_photo1.mxd, 05/22/08, michael_bricary

	NO SCALE	CHARACTER PHOTO 1 SOLAR TWO PROJECT		FIG. NO: 5.13-4
		CREATED BY CL	DATE: 5-22-08	
		PM: AL	PROJ. NO: 27657102.00413	



Westside Elementary School

Path: G:\gis\projects\1577\22238980.mxd\visual_char_photo2.mxd, 05/22/08, michael_birary

	NO SCALE	CHARACTER PHOTO 2 SOLAR TWO PROJECT		FIG. NO: 5.13-5
		CREATED BY CL PM: AL	DATE: 5-22-08 PROJ. NO: 27657102.00413	



U.S. Gypsum Quarry

Path: G:\gis\projects\1577\22238980\mxd\visual_char_photo3.mxd, 05/22/08, michael_birary

 	NO SCALE	CHARACTER PHOTO 3 SOLAR TWO PROJECT		FIG. NO: 5.13-6
		CREATED BY CL	DATE: 5-22-08	
		PM: AL	PROJ. NO: 27657102.00413	



Highway 80 west of Project



CHARACTER PHOTO 4
SOLAR TWO PROJECT

URS

NO SCALE

CREATED BY CL

DATE: 5-22-08

FIG. NO:

PM: AL

PROJ. NO: 27657102.00413

5.13-7



Agricultural Area east of Project

Path: G:\gis\projects\1577\22238980\mxd\visual_char_photo5.mxd, 05/22/08, michael_birary

	CHARACTER PHOTO 5 SOLAR TWO PROJECT			
		NO SCALE	CREATED BY CL	DATE: 5-22-08
PM: AL			PROJ. NO: 27657102.00413	



Existing Transmission Corridor

Path: G:\gis\projects\1577\22238980\mxd\visual_char_photos6.mxd, 05/22/08, michael_bricary

	NO SCALE	CHARACTER PHOTO 6 SOLAR TWO PROJECT		FIG. NO: 5.13-9
		CREATED BY CL	DATE: 5-22-08	
		PM: AL	PROJ. NO: 27657102.00413	



Residence at Boundary Ave and Imperial Ave in Ocotillo Wells

Path: G:\gis\projects\1577\22238980\mxd\visual_char_photo7.mxd, 05/22/08, michael_birary

	NO SCALE	CHARACTER PHOTO 7 SOLAR TWO PROJECT		FIG. NO: 5.13-10
		CREATED BY CL	DATE: 5-22-08	
		PM: AL	PROJ. NO: 27657102.00413	



Residential Zone to west of Project

	NO SCALE	CHARACTER PHOTO 8 SOLAR TWO PROJECT		FIG. NO: 5.13-11
		CREATED BY CL	DATE: 5-22-08	
		PM: AL	PROJ. NO: 27657102.00413	

FIGURE 5.13-12
SCENIC ATTRACTIVENESS EVALUATION FORM FOR
SENSITIVE VIEW AREA AND KOP #1

Landform	H (5)	H/M (4)	M (3)	M/L (2)	<u>L (1)</u>
Vegetation	H (5)	H/M (4)	M (3)	M/L (2)	<u>L (1)</u>
Water	H (5)	H/M (4)	M (3)	M/L (2)	<u>L (1)</u>
Color	H (5)	H/M (4)	M (3)	M/L (2)	<u>L (1)</u>
Adjacent Scenery	H (5)	H/M (4)	M (3)	M/L (2)	<u>L (1)</u>
Scarcity	H (5)	H/M (4)	M (3)	M/L (2)	<u>L (1)</u>
Modifications*	H (2)	H/M (1)	M (0)	<u>M/L (-2)</u>	L (-4)
Scenic Attractiveness Class C (10)					

Scenic Quality
Classifications
A = 19 or more
B = 12 to 18
C = 11 or less

Note: Evaluation score is bold and underlined; H = High; M = Moderate; and L = Low

*Explains cultural modifications present in the landscape, ranging from negative intrusions (-4) to those that complement the scenic quality and promote visual harmony (2).



Narrative Landscape Description and Photograph: Sensitive Viewing Area and KOP #1 (Figure 5.13-17, Existing View from KOP #1, see also Figure 5.13-3, KOP Location Map, for KOP location). This image was taken from the OHV area to the north of the Project Site, approximately 1.5 miles from the northern perimeter of the Project Site (Figure 5.13-17, see also Figure 5.13-3 for KOP location). The Project, in the absence of screening, would be highly visible because of the flat, open viewing conditions. The viewshed has been modified with the presence of existing transmission and telephone lines/poles, on the Project Site and I-8. There are no natural water features in the Project area. A variety of cultural modifications (including U.S. Gypsum Quarry, fencing, and telephone/transmission lines) are visible in foreground and middleground views. The area is characterized by little color variations (mainly from patches of sparse low-lying vegetation), and has low contrast of generally mute tones. Views from this KOP to the east consist of patchwork views of farmlands. This landscape is mildly interesting within its setting, but fairly common within the region. The ESIL from this area can be characterized as Class C views.

**FIGURE 5.13-13
SCENIC ATTRACTIVENESS EVALUATION FORM FOR
SENSITIVE VIEW AREA AND KOP #2**

Landform	H (5)	H/M (4)	M (3)	M/L (2)	<u>L (1)</u>
Vegetation	H (5)	H/M (4)	M (3)	M/L (2)	<u>L (1)</u>
Water	H (5)	H/M (4)	M (3)	M/L (2)	<u>L (1)</u>
Color	H (5)	H/M (4)	M (3)	M/L (2)	<u>L (1)</u>
Adjacent Scenery	H (5)	H/M (4)	M (3)	M/L (2)	<u>L (1)</u>
Scarcity	H (5)	H/M (4)	M (3)	M/L (2)	<u>L (1)</u>
Modifications*	H (2)	H/M (1)	M (0)	<u>M/L (-2)</u>	L (-4)
Scenic Attractiveness Class C (10)					

Scenic Quality Classifications
A = 19 or more
B = 12 to 18
C = 11 or less

Note: Evaluation score is bold and underlined; H = High; M = Moderate; and L = Low

*Explains cultural modifications present in the landscape, ranging from negative intrusions (-4) to those that complement the scenic quality and promote visual harmony (2).



Narrative Landscape Description and Photograph: Sensitive Viewing Area and KOP #2 (Figure 5.13-18, Existing View from KOP #2, see also Figure 5.13-3, KOP Location Map, for KOP location). This image was taken from the front yard view of the closest residence with direct views of the Project. This residence is approximately 1.5 miles from the eastern perimeter of the Project Site. Solar Two, in the absence of screening, would be highly visible due to the flat, open viewing conditions. The viewshed has been modified with the presence of existing transmission lines, the existing Gypsum Quarry, and existing/abandoned farm structures in the foreground. There are no natural water features in the Project area. The area is characterized by little color variations (mainly from patches of sparse low-lying vegetation), and has low contrast of generally mute tones. Views from this KOP to the east also consist of large expanses of farmlands. The landscape is mildly interesting within its setting, but fairly common within the region. The ESIL from this area can be characterized as Class C views.

**FIGURE 5.13-14
SCENIC ATTRACTIVENESS EVALUATION FORM FOR
SENSITIVE VIEW AREA AND KOP #3**

Landform	H (5)	H/M (4)	M (3)	M/L (2)	<u>L (1)</u>
Vegetation	H (5)	H/M (4)	M (3)	M/L (2)	<u>L (1)</u>
Water	H (5)	H/M (4)	M (3)	M/L (2)	<u>L (1)</u>
Color	H (5)	H/M (4)	M (3)	M/L (2)	<u>L (1)</u>
Adjacent Scenery	H (5)	H/M (4)	M (3)	M/L (2)	<u>L (1)</u>
Scarcity	H (5)	H/M (4)	M (3)	M/L (2)	<u>L (1)</u>
Modifications*	H (2)	H/M (1)	M (0)	<u>M/L (-2)</u>	L (-4)
Scenic Attractiveness Class C (10)					

Scenic Quality Classifications
A = 19 or more
B = 12 to 18
C = 11 or less

Note: Evaluation score is bold and underlined; H = High; M = Moderate; and L = Low

*Explains cultural modifications present in the landscape, ranging from negative intrusions (-4) to those that complement the scenic quality and promote visual harmony (2).



Narrative Landscape Description and Photograph: Sensitive Viewing Area and KOP #3 (Figure 5.13-19, Existing View from KOP #3, see also Figure 5.13-3, KOP Location Map, for KOP location). This image was taken from the residence with the most immediate views of the proposed transmission lines. There are no views of the solar field from this sensitive area. In the area, farming and residential structures, area topography, and vegetative screening adjacent to the road create intermittent view obstructions in the vicinity of the Project Site; however, the proposed transmission lines that are part of the Project, in the absence of screening, would be highly visible to this residence as they cross through the Yuha ACEC and join the Imperial Valley Substation. It should be noted that the most distinct visual characteristics here are distant views to western mountains and the patchwork of various grasslands and dry-farming/agricultural activities. The ESIL from this area can be characterized as Class C.

**FIGURE 5.13-15
SCENIC ATTRACTIVENESS EVALUATION FORM FOR
SENSITIVE VIEW AREA AND KOP #4**

Landform	H (5)	H/M (4)	M (3)	M/L (2)	<u>L (1)</u>
Vegetation	H (5)	H/M (4)	M (3)	M/L (2)	<u>L (1)</u>
Water	H (5)	H/M (4)	M (3)	M/L (2)	<u>L (1)</u>
Color	H (5)	H/M (4)	M (3)	M/L (2)	<u>L (1)</u>
Adjacent Scenery	H (5)	H/M (4)	M (3)	M/L (2)	<u>L (1)</u>
Scarcity	H (5)	H/M (4)	M (3)	M/L (2)	<u>L (1)</u>
Modifications*	H (2)	H/M (1)	M (0)	<u>M/L (-2)</u>	L (-4)
Scenic Attractiveness Class C (10)					

Scenic Quality Classifications
A = 19 or more
B = 12 to 18
C = 11 or less

Note: Evaluation score is bold and underlined; H = High; M = Moderate; and L = Low

*Explains cultural modifications present in the landscape, ranging from negative intrusions (-4) to those that complement the scenic quality and promote visual harmony (2).



Narrative Landscape Description and Photograph: Sensitive Viewing Area and KOP #4 (Figure 5.13-20, Existing View from KOP #4, see also Figure 5.13-3, KOP Location Map, for KOP location). This image was taken from approximately 5 miles west of the Project Site along I-8 eastbound, near Ocotillo. This image represents “worst-case” potential traveler views from the mountainside area as well as elevated traveler views along I-8. This view illustrates the location from which the Project would be most visible when approaching on I-8 from the mountain area. Although this sensitive viewing area is approximately 5 to 8 miles away and considered to have more distant views, travelers are at an elevated viewing position, and would virtually have a direct line-of-sight to the Project vicinity. There are a variety of cultural modifications in the foreground view, while the background views are of open desert. Commercial and residential structures, area topography, and vegetative screening adjacent to the road create intermittent views; however, the Project, in the absence of screening, would be highly visible in this view. Looking west from this location there are distant views to western mountains and the patchwork of various grasslands and dry-farming/agricultural activities. The ESIL from this area can be characterized as Class C.

**FIGURE 5.13-16
SCENIC ATTRACTIVENESS EVALUATION FORM FOR
SENSITIVE VIEW AREA AND KOP #5**

Landform	H (5)	H/M (4)	M (3)	M/L (2)	<u>L (1)</u>
Vegetation	H (5)	H/M (4)	M (3)	M/L (2)	<u>L (1)</u>
Water	H (5)	H/M (4)	M (3)	M/L (2)	<u>L (1)</u>
Color	H (5)	H/M (4)	M (3)	M/L (2)	<u>L (1)</u>
Adjacent Scenery	H (5)	H/M (4)	M (3)	M/L (2)	<u>L (1)</u>
Scarcity	H (5)	H/M (4)	M (3)	M/L (2)	<u>L (1)</u>
Modifications*	H (2)	H/M (1)	M (0)	<u>M/L (-2)</u>	L (-4)
Scenic Attractiveness Class C (10)					

Scenic Quality Classifications
A = 19 or more
B = 12 to 18
C = 11 or less

Note: Evaluation score is bold and underlined; H = High; M = Moderate; and L = Low

*Explains cultural modifications present in the landscape, ranging from negative intrusions (-4) to those that complement the scenic quality and promote visual harmony (2).



Narrative Landscape Description and Photograph: Sensitive Viewing Area and KOP #5 (Figure 5.13-21, Existing View from KOP #5, see also Figure 5.13-3, KOP Location Map, for KOP location). This image was taken from I-8 westbound, immediately adjacent and south of the Project Site near the Dunaway Road on-ramp. This KOP represents a “worst-case” potential traveler view as westbound from El Centro towards Ocotillo and the mountain areas. This view illustrates the location from which Project features, including linears, would be most visible to travelers approaching on I-8 from El Centro. Travelers are at an elevated viewing position, and would be confronted with the most immediate views of the solar field. The ESIL from this area can be characterized as Class C.



View From Ocotillo Vehicular Recreation Area



EXISTING VIEW FROM KOP #1
SOLAR TWO PROJECT

NO SCALE



CREATED BY CL	DATE: 5-22-08	FIG. NO:
PM: AL	PROJ. NO: 27657102.00413	5.13-17



Residential View of Proposed Project Site



EXISTING VIEW FROM KOP #2
SOLAR TWO PROJECT

NO SCALE

CREATED BY CL
PM: AL

DATE: 5-22-08

PROJ. NO: 27657102.00413

FIG. NO:
5.13-18



Residential View of Proposed Transmission Lines

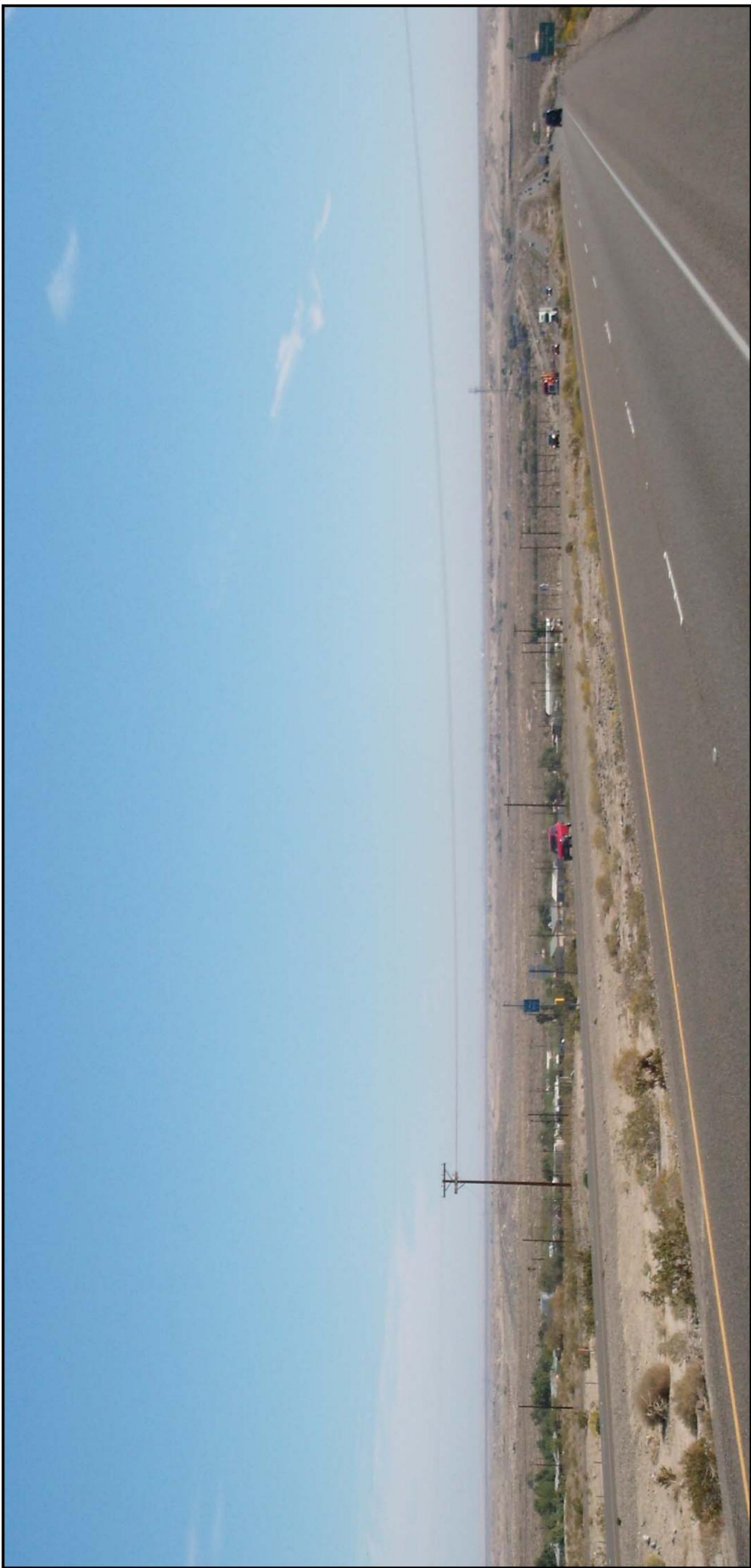


EXISTING VIEW FROM KOP #3
SOLAR TWO PROJECT

NO SCALE



CREATED BY CL	DATE: 5-22-08	FIG. NO:
PM: AL	PROJ. NO: 27657102.00413	5.13-19



Traveler View Approaching Project on I-8 East

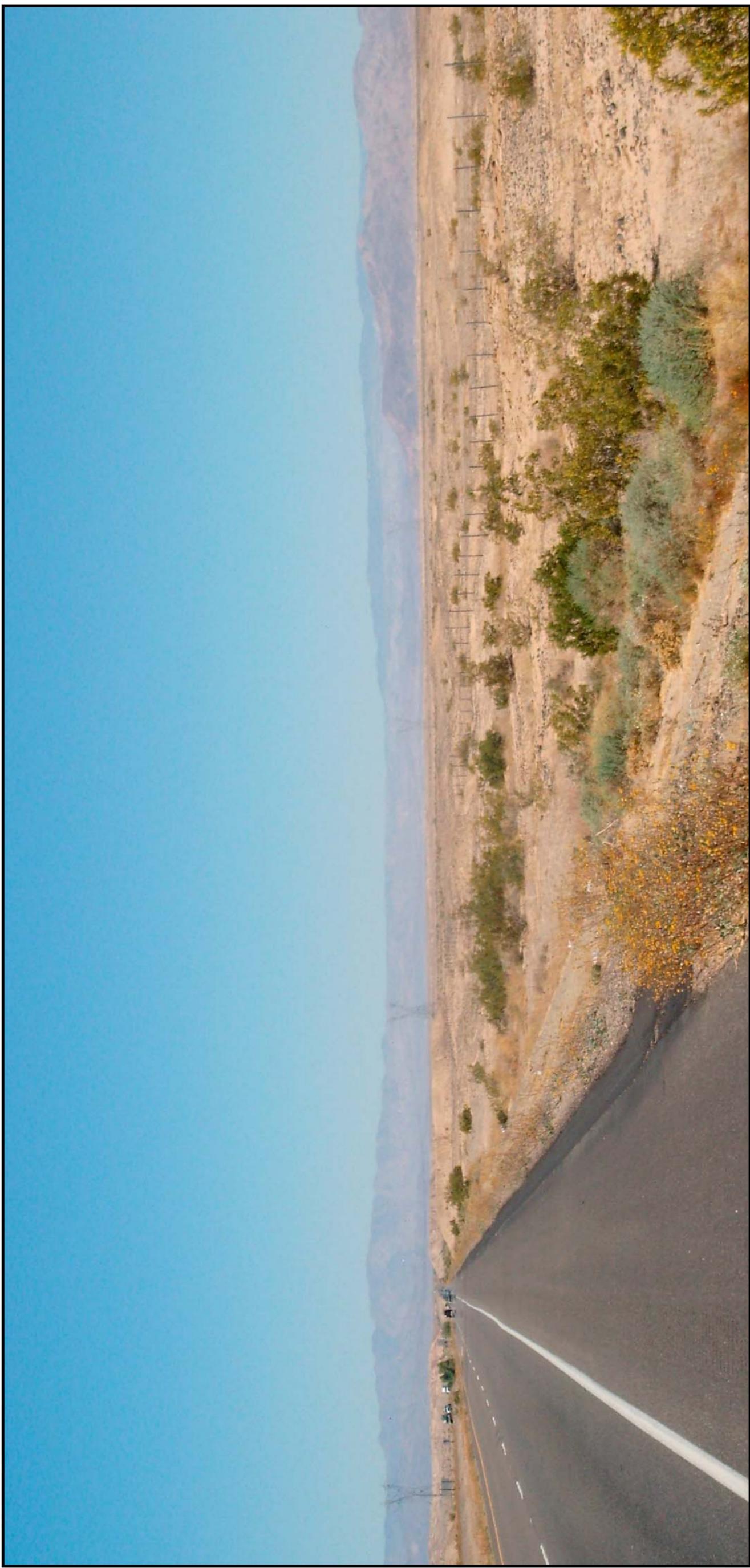


EXISTING VIEW FROM KOP #4
SOLAR TWO PROJECT

CREATED BY	CL	DATE	5-22-08	FIG. NO:	
PM:	AL	PROJ. NO:	27657102.00413		5.13-20

NO SCALE





Traveler View Approaching Project on I-8 West



EXISTING VIEW FROM KOP #5
SOLAR TWO PROJECT

NO SCALE

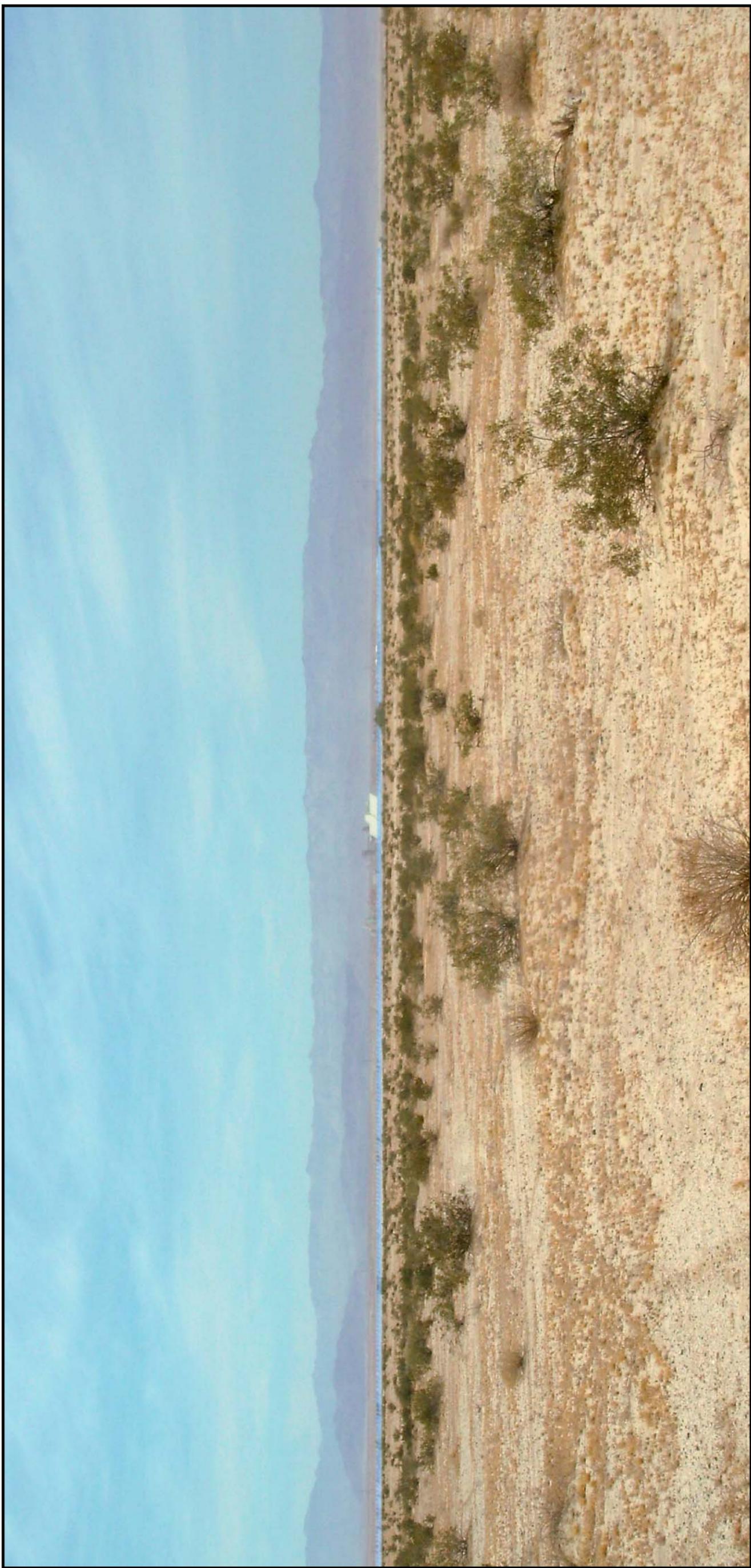
CREATED BY CL
PM: AL

DATE: 5-22-08

PROJ. NO: 27657102.00413

FIG. NO:

5.13-21



Simulated View From Ocotillo Vehicular Recreation Area



PROPOSED VIEW FROM KOP #1
SOLAR TWO PROJECT

NO SCALE

CREATED BY CL	DATE: 5-22-08	FIG. NO:
PM: AL	PROJ. NO: 27657102.00413	5.13-22



Simulated Residential View of Proposed Project



URS

PROPOSED VIEW FROM KOP #2
SOLAR TWO PROJECT

NO SCALE

CREATED BY CL	DATE: 5-22-08	FIG. NO:
PM: AL	PROJ. NO: 27657102.00413	5.13-23



Simulated Residential View of Proposed Transmission Lines



PROPOSED VIEW FROM KOP #3
SOLAR TWO PROJECT

NO SCALE



CREATED BY CL	DATE: 5-22-08	FIG. NO:
PM: AL	PROJ. NO: 27657102.00413	5.13-24



Simulated Traveler View Approaching Project on I-8 East



PROPOSED VIEW FROM KOP #4
SOLAR TWO PROJECT

NO SCALE

CREATED BY CL

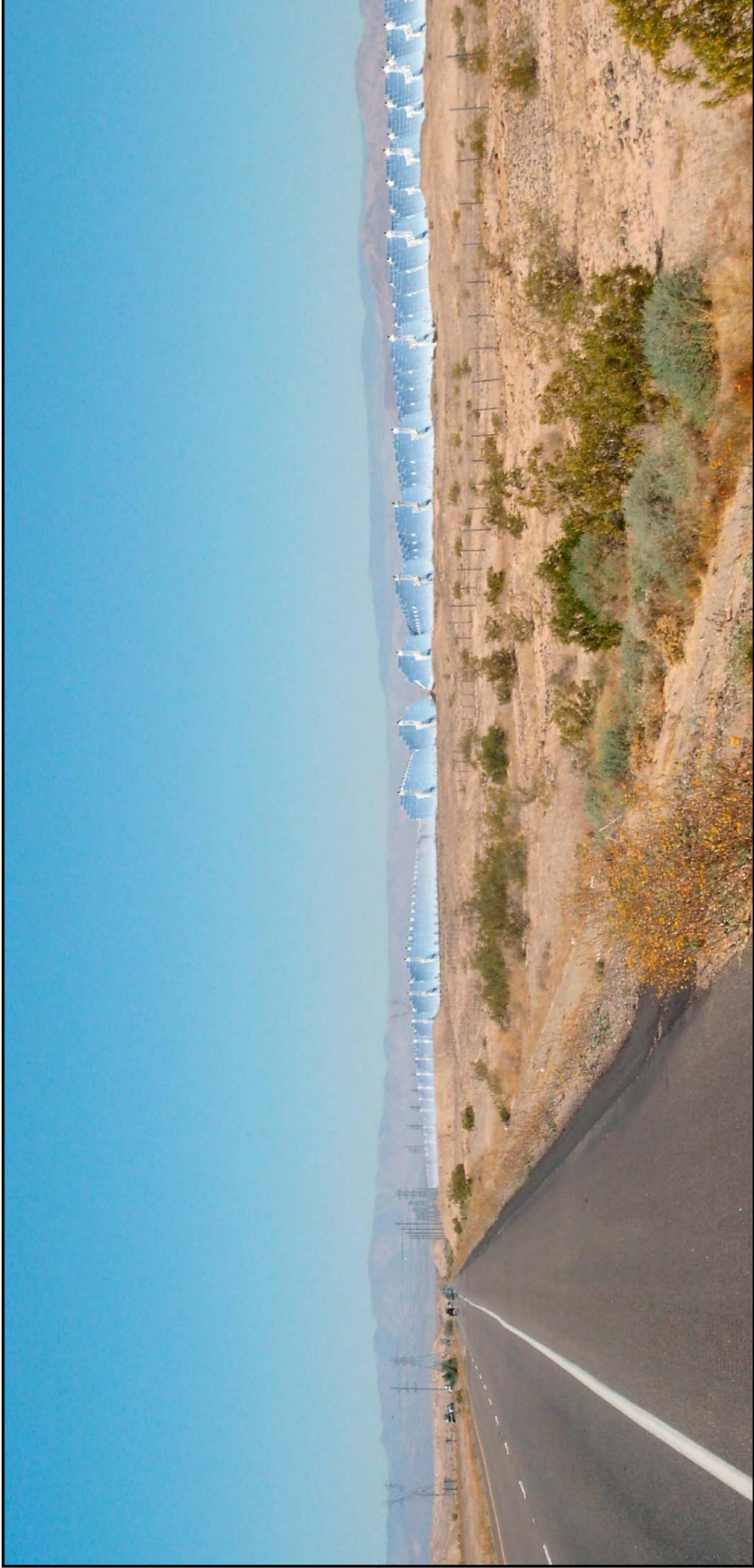
DATE: 5-22-08

FIG. NO:

PM: AL PROJ. NO: 27657102.00413

5.13-25





Simulated Traveler View Approaching Project on I-8 West



PROPOSED VIEW FROM KOP #5
SOLAR TWO PROJECT

NO SCALE

CREATED BY CL DATE: 5-22-08 FIG. NO:
PM: AL PROJ. NO: 27657102.00413 5.13-26



