

## 4.1. AESTHETICS

This section includes the following discussion and analysis related to aesthetics/visual resources: existing environmental setting and regulatory context; methodology and criteria for evaluating impacts; and the results of the impact assessment, including identification of potentially significant impacts and corresponding mitigation measures to avoid or substantially lessen such impacts to the extent feasible. The concepts and methods employed in this section are based, in part, on guidance from the Federal Highway Administration (FHWA)(FHWA 2015).

### ***PEIR Scoping Comments***

During the PEIR scoping process, the District received one letter containing a comment regarding aesthetics (see PEIR Scoping Report in Appendix A of this document). This comment is quoted in full below.

#### Leadership Counsel for Justice & Accountability

I. Aesthetics: “The EIR must evaluate any visual, aesthetic, light and glare impacts implementing the VCIP will have on communities near the VCIP projects.”

[Note: Potential aesthetic/aesthetic and lighting/glare impacts are addressed in Section 4.1.3. *Environmental Impact Analysis*, below.]

## 4.1.1. Environmental Setting

### ***Introduction***

The aesthetic value of an area is defined by its visual character and quality combined with viewer sensitivity to the visual environment. These components of aesthetic value are described below.

#### Visual Quality and Character

Visual quality is defined as the overall visual impression or attractiveness of an area as determined by the particular landscape characteristics, including landforms, rock forms, water features, vegetation patterns, and built environment features and infrastructure. The attributes of line, form and color combine in various ways to create landscape characteristics whose variety, vividness, coherence, uniqueness, harmony, and pattern contribute to the overall visual quality of an area.

#### Viewer Sensitivity

Visual sensitivity depends on the number and type of viewers and the frequency and duration of views. Typically, visual sensitivity increases with an increase in the total numbers of viewers, the frequency of viewing (e.g., daily vs. seasonally), and the duration of views. Generally, the dominance and importance of an object increases with its proximity to the viewer, although distance zones (i.e., foreground, middle-ground, or background) in viewsheds may vary between different geographic regions or types of terrain. The standard foreground distance zone is 0.25 to 0.50 miles from the viewer, the middle-ground distance zone extends from the foreground zone to 3 to 5 miles from the viewer, and the background zone extends from the middle-

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ground zone to the limit of human sight. Generally, visual contrast in the foreground would be more noticeable to viewers than increased visual contrast in background zones. Viewer sensitivity also depends on whether the viewer is a resident, a motorist, a commercial employee, or a recreational user, as described in the following:

- Residents typically have high sensitivity to visual changes, since residential viewer groups have stationary and long-term views of the landscape.
- Motorists on local roads and freeways include residents, workers, and commuters driving to businesses in the area. Drivers generally have low sensitivity to visual changes since their views are of short duration and because they are more concerned with surrounding traffic, road signs, and their immediate surroundings within their vehicle rather than visual features in the landscape.
- Commercial employees have low to moderate sensitivity to visual changes because they are more focused on operational tasks and less focused on the greater surrounding visual environment.
- Recreational groups are likely to be highly sensitive to visual changes because they are more focused on their surroundings while engaged in outdoor recreation.

### ***Visual Character and Quality of the VCIP Plan Area***

The Plan Area consists entirely of flat lands on the floor of the west side of the San Joaquin Valley. It is generally bounded on the west by the foothills of the Coastal Ranges, on the north by West Nees Avenue, on the east by the Fresno Slough, and the south by the Fresno/Kings County boundary. The terrain is generally level, with a slight downgradient to the northeast. The Plan Area contains no rivers, and a few creeks emerge from the western foothills and terminate on the west side of the valley in self-contained watersheds with no outlets.

Over the past 100 years, the landscape of the Plan Area has been highly modified for large-scale agricultural cultivation for various row crops, tree crops, and vineyards, along with substantial acreage fallowed each year. The Plan Area includes several small rural communities such as Cantua Creek and Three Rocks/El Porvenir, with larger communities like Mendota, and Coalinga located just outside the Plan Area boundaries. The City of Huron is surrounded by the VCIP Plan Area, but it is not within the Westlands service area and is not included in the VCIP Plan Area. Otherwise, the area is sparsely settled with ranch complexes, individual dwellings, and clusters of dwellings (former and current farmworker housing), two elementary schools, and one church dispersed throughout the area. Established built landscape features also include agricultural processing facilities, cold storage facilities, material storage yards, irrigation canals and ditches, overhead powerlines and substations. Large infrastructure facilities such as the California Aqueduct and several high-voltage transmission lines traverse the length of the Plan Area. Interstate-5 (I-5) runs along the west side of the Plan Area and serves as the primary regional transportation corridor. A network of State Routes (SR) and County Roads extends throughout the Plan Area, but traffic on these roadways is very light and locally-oriented. Other built environment features include a federal prison, a UC research facility, Naval Air Station Lemoore, and several highway commercial centers along the I-5 corridor. (For a detailed description of existing land use in the Plan Area, along with detailed maps and representative photos, see Section 3. *Environmental Setting*.)

The Plan Area also includes several large and medium-sized solar generating facilities, including 22 operating facilities on approximately 14,460 acres, and an additional 12 pending and approved solar and energy storage

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projects planned for about 17,975 acres in the Plan Area. These projects include supporting infrastructure such as on-site substations and gen-tie lines that connect these facilities to three large regional collection substations/switchyards located in the Plan Area.

Vegetation in the Plan Area mainly consists of agricultural crops, with tree crops such as almonds and pistachios comprising almost half of the total cultivated acreage. Otherwise, the Plan Area is notably sparse in tree cover, except for scattered stands of introduced tree and shrub species in the small rural communities, and around the dispersed ranches and individual residences. Some native trees and vegetation remain in the remnant riparian corridors along the small natural drainage courses on the west side of the valley such as Panoche and Cantua Creeks, and Arroyo Pasajero. Additionally, there are a few areas of natural and naturalizing vegetative cover, including: the Pleasant Valley Ecological Preserve, which is partially located within the Plan Area near Coalinga; the Arroyo Pasajero Westside Detention Basin located north of Huron, and the Pilibos Wildlife Area located adjacent to the San Luis Canal north of N. Panoche Road.

There are also several wildlife areas near and adjacent to the Plan Area. These include the Mendota State Wildlife Area, the Alkali Sink Ecological Reserve, and the Alkali Sink Mitigation Bank, which are located east of Mendota and just outside the Plan Area. Other nearby wildlife areas include the Helm Wetlands Preserve located adjacent to the Plan Area near the community of Helm, and the Five Points Wetlands Preserve located northeast of Five Points. Some of these areas offer opportunities for low-intensity recreational use such as hiking, bird watching, and hunting.

Overall, the Plan Area has the appearance of having been highly modified by large-scale agricultural use, as well as the introduction of large-scale regional infrastructure, and more recently by the repurposing of large areas of farmland for renewable energy facilities. The Plan Area is distinctive for open views from the valley floor across its vast level terrain, but visibility is often limited by hazy conditions caused by thermal inversions, especially in the winter months. Also, there are few if any recognized scenic resources within the Plan Area, and it does not have a strong visual connection with the western foothills which form a distant backdrop. Thus, the overall visual quality of the Plan Area is considered low to moderate.

### **Scenic Resources**

Scenic resources are those natural and built landscape patterns and features that are considered visually or aesthetically pleasing and, therefore, contribute positively to the definition of a distinct community or region. The Plan Area is distinctive for the open views across the flat valley floor. However, the landscape has been highly modified for large scale agricultural and renewable energy use and retains little if any of its original natural attributes. When atmospheric conditions are clear, the foothills of the Coast Ranges are visible to the west. Although the foothills are a recognized scenic resource, they form the distant background from viewpoints in the Plan Area and are not visually dominant elements in the landscape.

Since the western foothills rise gradually from the valley floor, there are no panoramic views available from high vantage points to the west. There are no designated public viewpoints in the adjacent foothills, and there are few if any hiking trails in the foothills that would provide pedestrian access to any higher elevation vantage points. The two main highways that emerge from the foothills (SR-33 and SR-198) descend gradually into the valley, but the visually accessible approaches are at relatively low elevations of a few hundred feet. While long distance views across the valley are fleetingly available along the descending segments of these highways, these

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long low-level views are visually flat, lack contrast, and have no distinctive features and are not considered scenic vistas.

The Fresno County General Plan Background Report describes the general scenic qualities of the County and makes note of the Coastal Range foothills west of I-5 and the importance of preserving the unique and open character of these rangelands (Fresno County 2023). The Fresno County General Plan designates the foothills west of I-5 as the Westside Rangeland planning area where one of the main policy objectives is to “maintain the scenic open space character of the rangelands including view corridors of highways” (Policy LU-B.11). New development is required to protect the visual qualities of the area and minimize the visibility of structures on hillsides, steep slopes, and canyons (Fresno County 2024b). No lands within the Plan Area are in the Westside Rangeland planning area and, as such, the Plan Area is not part of this recognized scenic resource. From most of the Plan Area, the foothills of the Coast Ranges appear as low ridges on the horizon in distant views to the west and make up a very small portion of the overall field of view for observers within the Plan Area (see Figure 4.1-2 – Photo 5, in Section 4.1.3.1 *infra*). Although the foothills are distantly visible on the horizon in long views from within the Plan Area, the dominant characteristics of these views are their flatness and lack of distinctive features. Thus, these views are not considered scenic vistas.

The Plan Area includes two scenic routes designated by Fresno County in the General Plan. These include the segment of SR-198 running west from I-5 to the Monterey County line, and the entire length of I-5 within Fresno County. The scenic value of the I-5 corridor is given special recognition in the General Plan, where it serves as the focus for the “Westside Freeway Corridor Overlay” land use designation. The General Plan includes specific goals and policies applicable to the Westside Freeway Corridor, including protection of scenic views along the freeway, particularly of the western hillsides. The overlay designation applies to lands within one mile on both sides of the freeway, where commercial uses are allowed at interchanges, and other lands are limited to agricultural uses with minimum lot sizes of 40 acres. As discussed in Section 4.11. *Land Use and Planning*, solar energy facilities are allowed uses in agricultural zones in Fresno County.

The eastern border of the Plan Area is near the Mendota Wildlife Area which lies across Santa Fe Avenue and the disused San Luis Drain to the east. The nearby portions of the wildlife area are characterized by scattered pockets of emerging natural vegetation, which has moderate visual quality as viewed from the nearby Plan Area, and is not considered a scenic resource. There are no historic buildings, rock outcroppings, significant trees or other scenic resources within or near the Plan Area.

### ***Viewers and Viewer Sensitivity***

The Plan Area includes several types of viewer groups, primarily residents, motorists, commercial employees, and recreational users. Viewer sensitivity, one of the factors for evaluating visual impact, can be divided into high, moderate, and low sensitivity. Determinants of viewer sensitivity include viewer activity, view duration and viewing distance, and other factors such as degree of attentiveness to visual surroundings. The sensitivity of each viewer group in the Plan Area is discussed below.

#### **Residents**

This viewer group includes inhabitants of the Plan Area, including residents of the communities of Cantua Creek, Three Rocks/El Porvenir, Five Points, and Westside, as well as residents of ranch complexes, housing clusters, and individual dwellings dispersed throughout the Plan Area. In most instances, the small communities, ranches, and residential properties in the Plan Area include mature trees and other vegetation that provide a measure

of screening from the surrounding environment at these locations. Residential viewer groups typically have high sensitivity to visual changes, since they have stationary and long duration views of the landscape subject to the changes.

### **Motorists**

This viewer group includes people traveling on public roadways in the Plan Area. These roadways include a heavily traveled portion of I-5 along the west side of the Plan Area, and the lightly traveled State Highways and County Roads that provide local transportation access to agricultural, commercial, and residential uses within the Plan Area. Motorists on I-5 generally consist of regional travelers who occasionally pass through the area, whereas motorists on local roadways are generally those who travel the area frequently and are familiar with the visual setting. Roadway views may be long or short in duration, and in some locations, motorists' views are screened by roadside vegetation such as orchards and occasional stands of mature trees. The sensitivity of this viewer group is considered to be low to moderate.

### **Commercial Employees**

This viewer group includes agricultural workers, employees at agricultural processing facilities, retail workers at highway commercial centers, and others. While engaged in their occupations (not commuting) these viewers may be in proximity to potential VCIP energy or infrastructure projects. The sensitivity of this viewer group is considered low to moderate for the reasons described above.

### **Recreational Users**

This viewer group includes those who utilize recreational opportunities in the area. The recreational destinations in and near the Plan Area include the Mendota Wildlife Area and the Pilibos Wildlife Area. These areas offer low intensity recreational activities such as hunting, wildlife viewing, and hiking. The sensitivity of this viewer group is considered high for the reasons described above, although the number of recreationalists visiting these wildlife areas is low.

## **4.1.2. Regulatory Context**

The following is an overview of the principal statutes, regulations, plans and programs related to utilities and service systems that may apply to implementation of the proposed VCIP.

### ***Federal***

There are no federal regulations, plans, or policies pertaining to aesthetics that are applicable to the VCIP. It is noted that the FHWA's "Guidelines for Visual Assessment of Highway Projects" (FHWA 2015) provided guidance for this impact assessment, but it does not have the effect of policy or regulation with regard to the VCIP.

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## ***State of California***

### **California Scenic Highway Program**

California’s Scenic Highway Program was created in 1963 to preserve and protect scenic highway corridors from changes that would diminish the aesthetic value of lands adjacent to highways. The State Scenic Highway System includes a list of highways that are either designated as scenic highways or eligible for such designation. A highway may be designated as “scenic” depending on how much of the natural landscape can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes upon the travelers’ enjoyment of the view.

In western Fresno County, the only state-designated scenic highway is the “eligible” segment of SR-198 extending west from I-5 near Coalinga to the Monterey County line. This highway segment is 33 miles long in Fresno County, of which less than one (0.75) mile is in the western margin of Plan Area (Caltrans 2024). The Fresno County General Plan designates the same segment of SR-198 as a scenic highway, and designates the entire length of I-5 within Fresno County as a scenic highway (Fresno County 2024).

## ***Fresno County***

### **Fresno County General Plan**

The Fresno County General Plan (Fresno County 2024b) contains the following goals and policies related to aesthetics that are relevant to implementation of the proposed VCIP:

### ***Open Space and Conservation Element***

#### **K. Scenic Resources**

**GOAL OS-K** To conserve, protect, and maintain the scenic quality of Fresno County and discourage development that degrades areas of scenic quality.

**Policy OS-K.1** **Scenic Resource Preservation**  
The County shall encourage the preservation of outstanding scenic views, panoramas, and vistas wherever possible. Methods to achieve this may include encouraging private property owners to enter into open space easements for designated scenic areas.

**Policy OS-K.4** **Incorporating Scenic Features**  
The County should require development adjacent to scenic areas, vistas, and roadways to incorporate natural features of the site and be developed to minimize impacts to the scenic qualities of the site.

#### **L. Scenic Roadways**

**GOAL OS-L** To conserve, protect, and maintain the scenic quality of land and landscape adjacent to scenic roads in Fresno County.

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**Policy OS-L.1 Scenic Roadway System**

The County designates a system of scenic roadways that includes landscaped drives, scenic drives, and scenic highways. Definitions and designated roadways are shown in the Scenic Roadways List below. Figure OS-1 shows the locations of the designated roadways.<sup>1</sup>

**Policy OS-L.3 Scenic Roadway Management**

The County shall manage the use of land adjacent to scenic drives and scenic highways based on the following principles:

- a. Timber harvesting within or adjacent to the right-of-way shall be limited to that which is necessary to maintain and enhance the quality of the forest;
- b. Proposed high voltage overhead transmission lines, transmission line towers, and cell towers shall be routed and placed to minimize detrimental effects on scenic amenities visible from the right-of-way.
- c. Installation of signs visible from the right of way shall be limited to business identification signs, on site real estate signs, and traffic control signs necessary to maintain safe traffic conditions. All billboards and other advertising structures shall be prohibited from location within view of the right-of-way;
- d. Intensive land development proposals including, but not limited to, subdivisions of more than four lots, commercial developments, and mobile home parks shall be designed to blend into the natural landscape and minimize visual scarring of vegetation and terrain. The design of said development proposals shall also provide for maintenance of a natural open space area two hundred (200) feet in depth parallel to the right of way. Modification of the setback requirement may be appropriate when any one of the following conditions exist:
  1. Topographic or vegetative characteristics preclude such a setback;
  2. Topographic or vegetative characteristics provide screening of buildings and parking areas from the right-of-way;
  3. Property dimensions preclude such a setback; or
  4. Development proposal involves expansion of an existing facility or an existing concentration of uses.
- e. Subdivision proposals shall be designed to minimize the number of right-of-way access drives;
- f. Developments involving concentration of commercial uses shall be designed to function as an integral unit with common parking areas and right-of-way access drives; and
- g. Outside storage areas associated with commercial activities shall be completely screened from view of the right-of-way with landscape plantings or artificial screens which harmonize with the natural landscape.

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<sup>1</sup> The Scenic Roadways List identifies the following Fresno County Designated Scenic Highways in the vicinity of the VCIP Plan Area:

- SR-198 from I-5 to the Monterey County line, excluding City of Coalinga (this segment has also been determined to be eligible for State Scenic Highway Designation)
- I-5 within Fresno County

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## ***Agriculture and Land Use Element***

### **B. Westside Rangelands**

**GOAL LU-B** To preserve the unique character of the Westside Rangelands, which includes distinctive geologic and topographic landforms, watersheds, important agricultural activities, and significant biological resources, while accommodating agriculture, grazing, recreation, resource recovery, and other limited uses that recognize the sensitive character of the area.

**Policy LU-B.11 Scenic Rangelands Protection**

The County shall require that new development requiring a County discretionary permit be planned and designed to maintain the scenic open space character of rangelands including view corridors of highways. New development shall use natural landforms and vegetation in the least visually disruptive way possible, and use design, construction and maintenance techniques that minimize the visibility of structures on hillsides, ridgelines, steep slopes, and canyons.

### **D. Westside Freeway Corridor**

The General Plan includes specific policies governing development along the I-5 Corridor. The General Plan designates lands within one mile on both sides of the freeway as “Westside Freeway Corridor Overlay.” The General Plan goal and policies applicable to the Westside Freeway Corridor are intended to manage commercial development to preserve the scenic amenities along the freeway corridor. Specific interchanges are designated for commercial development or are limited to agricultural uses. All other lands within one mile of the freeway are limited to agricultural uses with minimum lot sizes of 40 acres (Fresno County 2024). As discussed in Section 4.11. *Land Use and Planning*, solar energy facilities are allowed uses in agricultural zones in Fresno County.

### **Fresno County Zoning Ordinance**

Section 820.3.080 of the County Zoning Ordinance sets forth performance standards for “Exterior Light and Glare.” Subsection A. 1. a. provides that exterior lighting shall be “[d]irected downward and shielded so that all direct light and glare is confined within the boundaries of the subject parcel, thereby minimizing off-site glare.” Subsection A.2.b.(1) provides that exterior lighting shall not result in: “[i]ndirect illumination of abutting properties in excess of 0.5-foot candles” (Fresno County 2024c).

Section 808.2.040 of the County Zoning Ordinance contains the General Development Standards for Agricultural Zones, including minimum parcel size, minimal setbacks, and maximum structure height. Minimum setbacks from the property line to nearest structure are 35 feet for the front setback and 20 feet for side and rear setbacks. Maximum structure height is 35 feet, although the County routinely grants variances for taller structures such as transmission towers.

Section 804.1.030(B)(9). of the County Zoning Ordinance (Exemptions from Land Use Permit Requirements) provides that “alteration, construction, erection, or maintenance by a public utility or public agency of underground or overhead utilities . . . shall be allowed in any zone.”

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## 4.1.3. Environmental Impact Analysis

### METHODOLOGY

This section analyzes the potential for implementation of the VCIP to result in significant environmental impacts related to aesthetics based on a review of maps, plans, and published documents that may be relevant to the VCIP Plan Area, including: the Fresno County General Plan and Ordinance Code; technical reports and guidance from Caltrans and FHWA, and other published sources cited in Section 4.1.4. *References*. The impact analysis is also based on extensive site reconnaissance and photography, and considers current policies and regulatory requirements that may apply to implementation of potential VCIP projects, including those identified in Section 4.1.2. *Regulatory Context*, above. The evaluation is based on visual character and quality under existing conditions and considers the changes in visual quality resulting from proposed VCIP implementation in terms of the visual sensitivity of various viewer groups within the Plan Area.

### SIGNIFICANCE CRITERIA

Based on Appendix G of the state CEQA Guidelines, implementation of the VCIP would be considered to result in a potentially significant impact related to aesthetics if it would:

- a. Have a substantial adverse effect on a scenic vista.
- b. Substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.
- c. In nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings, or, in an urbanized area, conflict with applicable zoning and other regulations governing scenic quality.
- d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

#### 4.1.3.1. DIRECT AND INDIRECT EFFECTS

##### **Impact AES-1. Substantial Adverse Effect on a Scenic Vista**

**The VCIP Plan Area is not part of a recognized scenic vista, nor are scenic vistas available from the Plan Area; therefore, VCIP implementation would not have a substantial adverse effect on a scenic vista. (*Less-than-Significant Impact*)**

The Plan Area consists of essentially flat agricultural land that is typical of the west side of the San Joaquin Valley, with no topographic variation or features to provide visual interest or vantage points for panoramic views or scenic vistas. The Plan Area is distinctive for flat open views from the valley floor across its vast level terrain. However, the landscape has been highly modified for large scale agricultural and renewable energy uses

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and retains little if any of its original natural attributes. Additionally, persistent temperature inversions result in hazy conditions which commonly limit visibility to relatively short distances, especially during the winter months. Under clear conditions, the foothills of the Coast Ranges are visible to the west. Although the foothills are a recognized scenic resource, they form the distant background from viewpoints in the Plan Area and are not visually dominant elements in the landscape. There are no views from the valley floor that are considered scenic vistas.

As discussed in Section 4.1.1. *Environmental Setting*, the western hillsides contain few viewing opportunities over the Plan Area. There are no designated public viewpoints in the western foothills. Two State Routes (SR-33 and SR-198) emerge from the lower foothills at relatively low elevations where low angle overviews of the valley are fleetingly available in the distance and are visually flat and undistinctive. The brief low quality long-distance views available from these highways are not considered scenic vistas.

The structural elements of potential VCIP projects would consist mainly of low-profile solar arrays, narrow profile transmission towers, and dispersed substations which would not block views of the foothills. Although the VCIP projects would result in physical changes to each project site, they would not have a substantial adverse effect on a scenic vista. [Note: The visual effects of temporary construction activity are addressed under Impact AES-3.]

Implementation of the VCIP Energy Resource and Infrastructure Plans would not result in a substantial adverse effect on a scenic vista, and the impact would be *less than significant*.

**Mitigation Measures: No mitigation is required.**

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**Impact AES-2. Substantially Damage Scenic Resources**

**Implementation of the VCIP Energy Resource and Infrastructure Plans would not substantially damage scenic resources. (*Less-than-Significant Impact*)**

Under this criterion, a significant impact would occur if the project would result in substantial damage to scenic resources including but not limited to trees, rock outcroppings, or historic buildings within a state scenic highway. As discussed in Section 4.1.1. *Environmental Setting*, there are no historic buildings, rock outcroppings, or notable trees or other scenic resources within the VCIP Plan Area. Potential impacts to scenic highways are discussed below.

The nearest state scenic highway in western Fresno County is the segment of SR-198 extending west from I-5 to the Monterey County line, which is designated as an eligible state scenic highway, and is also designated in the Fresno County General Plan as a scenic highway. An approximately 0.75-mile segment of SR-198 west of I-5 is located within the Plan Area. In this highway segment, the roadside views are dominated by the gas stations, restaurants, and motels associated with the nearby I-5 interchange. This highway commercial center does not have visual attributes that contribute to this highway's designation as a scenic highway. Additionally, no VCIP energy or infrastructure elements are planned in the vicinity of the SR-198 scenic highway, with the

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nearest Development Focus Area (DFA) located 2.3 miles northeast where it would be barely visible in long-distance views from the highway. Therefore, the implementation of VCIP energy and infrastructure projects would not substantially damage the SR-198 scenic highway corridor as a scenic resource.

The Fresno County General Plan also designates the entire length of I-5 within the County as a scenic highway. The scenic value of the I-5 corridor is given special recognition in the General Plan, where it serves as the focus for the “Westside Freeway Corridor Overlay” land use designation. The General Plan includes specific goals and policies applicable to the Westside Freeway Corridor, including protection of scenic views along the freeway. The overlay designation applies to lands within one mile on both sides of the freeway, where commercial uses are allowed at interchanges, and other lands are limited to agricultural uses with minimum lot sizes of 40 acres. (As discussed in Section 4.11. *Land Use and Planning*, solar energy facilities are allowed uses in agricultural zones in Fresno County.) General Plan Policy OS-L.3 requires a 200-foot setback between the scenic highway right-of-way and any new development. It is anticipated that the General Plan setback requirement would be included in the conditions of approval for affected VCIP projects.

The VCIP Energy Resource Plan includes several DFAs that are partially within one mile of I-5. Of the total 56-mile length of I-5 within the Plan Area, it is anticipated that potential solar and energy storage facilities would be intermittently spaced alongside the east side of the freeway for about 5.8 miles in total. This distance would be spread over six potential VCIP projects located along the freeway, with the largest solar project extending for 3.6 miles along the east side of the freeway north of the SR-33 interchange. The views of most of the solar facilities would be brief with the longest duration view of solar arrays lasting about three minutes at freeway speeds along the east side of the freeway, with the longest duration view along the west side of the freeway approximately two minutes. The other five solar projects would vary in extent from 0.1 to 1.2 miles along the east side of the freeway. The solar arrays would be low in profile and would be clearly visible in the foreground views beyond the required 200-foot setback zone. The arrays in front would partially screen the arrays behind, which would blend their appearance over distance to form a dark line on the horizon. The solar projects would include substations and power pole lines that would be visible in the middle or far ground but would not substantially interrupt the flat horizon line formed by the solar arrays and agricultural fields in the overall view. Since the adjacent agricultural lands on the east side of the freeway are not considered a scenic resource, the intermittent appearance of low profile solar facilities and infrastructure within the brief eastward views from the freeway would not represent substantial damage to a scenic resource.

On the west side of the freeway, the VCIP Energy Resource Plan includes three DFAs that would extend alongside the freeway for a combined distance of 2.3 miles, with potential projects ranging in length from 0.4 to 1.0 mile along the west side of the freeway at intermittent locations over a distance of 28 miles. These potential projects would occupy flat land in the foreground with foothills visible in the background. The solar arrays would be low in profile and would be clearly visible in the foreground views beyond the required 200-foot setback zone, with the arrays visually blending together over distance. The solar projects would include substations and power pole lines that would be visible in the middle or far ground but would not substantially affect views of the foothills in the background. For motorists on the freeway, views of the solar projects would be brief (less than a minute along each project, for a combined duration of about two minutes). Overall, as it would take a motorist about 50 minutes (at 70 mph) to drive through the Plan Area from end to end, views of the foothills from the west side of the freeway would be substantially similar under the VCIP as under baseline conditions. Thus, while the views of the western foothills from I-5 are considered a scenic resource, the implementation of VCIP solar and energy storage projects within these views would not substantially damage this scenic resource.

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The VCIP Infrastructure Plan includes one element that would cross over I-5, which is the 20-mile transmission line connecting Substation 3 to the future Manning Substation on the west side of I-5. This 500-kV transmission line would consist of a line of tubular steel monopoles up to 180 feet tall, placed at intervals of approximately 1,000 feet. Motorists on I-5 would have clear views of the overhead conductor cables and the monopoles a few hundred feet away on both sides of the freeway. The poles would be narrow in profile compared to traditional steel lattice towers, and given the speed of traffic flow, the fleeting view of the transmission line and towers would not dominate the overall viewing experience for passing motorists. Also, the western foothills are at least three miles west of I-5 at this location. While the foothills are considered a scenic resource, the VCIP transmission line that would cross over to the west side of I-5 to the Manning Substation would not substantially damage this scenic resource given its location and narrow profile.

The I-5 corridor runs adjacent to the foothills of the Coast Ranges which are designated in the Fresno County General Plan as the “Westside Rangelands,” where one of the main policy objectives is to “maintain the scenic open space character of the rangelands including view corridors of highways” (Policy LU-B.11). As such, the western foothills are considered a scenic resource. There are no VCIP energy or infrastructure projects anticipated within the Westside Rangelands area, and VCIP implementation would not damage this scenic resource.

The predominant scenic resource in the vicinity of the Plan Area consists of the foothills of the Coast Ranges, which border the Plan Area on the west. Associated with this scenic resource are scenic highway segments of SR-198 and I-5. The potential VCIP energy and infrastructure projects anticipated in the vicinity of the foothills and scenic highways would not have a substantial visual effect on these features. There are no other scenic resources such as trees, rock outcroppings, or historic buildings in the Plan Area or vicinity. Therefore, the implementation of the VCIP Energy Resource and Infrastructure Plans would not substantially damage scenic resources, and the impact would be *less than significant*.

[Note: The visual effects of temporary construction activity are addressed under Impact AES-3.]

**Mitigation Measures: No mitigation is required.**

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### **Impact AES-3. Substantially Degrade Existing Visual Character and Quality and Compliance with Applicable Zoning Regulations**

**Implementation of the VCIP Energy Resource and Infrastructure Plans would result in substantial changes to the visual character of the Plan Area. Whether these changes would substantially degrade the existing visual character or quality of the site and its surroundings depends on the individual circumstances of each VCIP project, with the level of impact ranging from no impact to significant. With respect to VCIP implementation adjacent to urbanized areas, the VCIP would not conflict with applicable zoning regulations governing scenic quality. (*Plan Level – Significant Impact; Project Level Impact – To be determined for each project*)**

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### **Visual Characteristics of Project Elements**

The VCIP Energy Resource Plan provides the planning framework for the development of utility-scale solar facilities and energy storage facilities. The solar facilities would consist mainly of solar arrays, along with supporting infrastructure, substations, O&M facilities, battery storage facilities, power collection and transmission lines, internal access driveways, and security fencing. The solar arrays would constitute the dominant visual element of potential solar facilities. However, the arrays would be low in profile, rising to a height of up to 8 feet, and the panels would be dark and non-reflective. The ground between and beneath the solar panels would be revegetated which would provide a naturalized context to visually soften the structural elements and maintain a visual connection with the rural setting. The largest structures would consist of substations with some elements up to 140 feet tall.

The VCIP Infrastructure Plan includes supporting elements such as gen-tie lines, collection substations, and connecting transmission lines. The gen-tie and transmission lines would be similar, as they both involve overhead electrical cables strung between tubular steel monopoles to transmit the generated power to and from collection substations and the state electrical grid. Gen-tie towers would be up to 140 feet tall and transmission towers would be as high as 180 feet. The Infrastructure Plan includes approximately 260 miles of gen-tie line and 79 miles of connecting transmission corridor. The five collection substations dispersed throughout the Plan Area would each occupy approximately 60 acres and have structural components as tall as 140 feet. The connecting transmission lines and collection substations would be generally located along the north and east sides of the Plan Area where they would serve the higher concentration of solar and energy storage projects that are planned for those areas.

The overall visual appearance of a typical utility-scale solar and energy storage project, as viewed from public roadways passing through and alongside the solar facility, would vary with distance. The foreground views would include the security fencing with solar arrays visible through the fence within a field of low-growing grasses. Given the flatness of the terrain, solar arrays in the foreground would tend to visually screen solar arrays in the background, thus reducing the overall visual mass and scale (see Figure 4.1-1). Within the solar fields, the larger structural elements such as inverters/transformers and maintenance buildings would be visible in the distance. The largest elements such as energy storage systems and project substations would be visible at varying distances from the traveled roadways (see Figure 4.1-2). The overall visual effect to passersby would be of a low-profile facility of uniform height (up to 8 feet in the early and late daylight hours, and lower during most of the day) with the slightly taller structures such as inverters/transformers appearing intermittently throughout, and the higher structures such as substations and transmission towers appearing much less frequently in the middle ground. Given that the travel surfaces of the public roads are typically raised several feet above the adjacent lands, this would further reduce the visual profile of the solar facilities. As shown in Figure 4.1-1, the solar arrays would not block distant views of lands beyond, and would be lower in height than the tree crops that are prevalent in the Plan Area.

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Photo 1: Typical Solar PV Field



Photo 2: Solar Field with Adjacent Orchard



Photo 9: Solar Array with Adjacent Residence

**Photos of Typical Solar Projects  
Figure 4.1-1**



Photo 4: 230-kV Gen-Tie Monopole Line with Residences Opposite



Photo 5: 500-kV Transmission Monopole Line



Photo 6: Typical 230-kV Project Substation with O&M Building

**Photos of Typical Solar Projects  
Figure 4.1-2**

### **General Visual Effects of VCIP Implementation**

As discussed in Section 4.1.1. *Environmental Setting*, the aesthetic value of an area is defined by its visual character and quality combined with viewer sensitivity to the visual environment. Apart from its vast flatness, the Plan Area is generally lacking in distinctive features and does not have a strong visual connection to recognized scenic resources such as the foothills in the distance to the west. The landscape has been highly modified for large scale agricultural and renewable energy uses and retains little if any of its original natural attributes. Under current conditions, the general visual quality of the Plan Area is low to moderate.

The VCIP Concept Plan provides for development of up to 136,000 acres of land for solar and energy storage projects within a number of DFAs. The pattern of DFAs varies widely depending on location within the Plan Area, with a higher concentration of DFAs in the northern and eastern portions of the Plan Area, a more dispersed pattern in the western areas, and no DFAs in the area south of SR-198. The connecting transmission line and collection substations would also generally be located along the north and east sides of the Plan Area where they would be within the higher concentration of solar and energy storage projects in those areas. Although VCIP projects would largely consist of low-profile solar arrays, which are not visually dominant, the character of large portions of the Plan Area would change on a long-term temporary basis from being predominantly fallowed land to rural land where solar facilities are visually dominant. Thus, prior to decommissioning, implementation of VCIP projects would bring a substantial visual change to the Plan Area overall.

Construction activity would sometimes occur in proximity to roadways and residences. However, solar and transmission facilities are constructed at a rapid pace, and construction activity would constantly move over the landscape, so construction would occur for short periods at any given location. Thus, while construction over the entire Plan Area would take several years, the visual effects associated with construction activity at any given location would be temporary and relatively brief in duration. For example, a typical 250 MW solar project on a 1,600-acre site would be completed in about one year. During different construction phases, such as grading, trenching, and panel installation, activity would occur sequentially and would take a week or two for each activity at any given location. The longest duration of activity would occur at the main construction staging site, which would typically occupy 30 acres near the main project entrance, and would serve as the hub of activity during the entire construction period. This area would also provide the location of the facility substation, battery storage system, and O&M facility. These facilities would be located away at least 400 feet from existing residences to minimize noise impacts to sensitive receptors during project operation (see Section 4.13. *Noise, Mitigation Measure NOI-1b*). Thus, the staging area for each solar project would also be located away from existing residences.

### **Viewers and Viewer Sensitivity**

As discussed in Section 4.1.1. *Environmental Setting*, the Plan Area includes several types of viewer groups, including residents, motorists, commercial employees, and recreational users. Each of these groups has different degrees of sensitivity to changes in their visual setting, with residential and recreational viewers having high sensitivity to visual change, and motorists and commercial employees having low to moderate sensitivity to visual change. In the following discussion, the degree of visual change experienced by each group because of VCIP implementation is evaluated in terms of their visual sensitivity to determine the extent of visual impacts for each group.

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## **Residents**

Residential viewer groups typically have high sensitivity to visual changes, since they have stationary and long duration views of the landscape subject to the changes. To determine potential visual impacts on this group, the locations of existing residences were evaluated regarding the extent to which their visual settings would change due to implementation of potential VCIP solar, energy storage, and infrastructure facilities planned in their vicinity. Of the 772 total identified existing dwellings in the unincorporated areas of the Plan Area, approximately 110 dwellings would have solar facilities located in the foreground views from at least one side of their properties, of which 62 residential properties contain intervening landscaping which would screen all or most of the view toward the solar facilities. Of the total 772 dwellings, 55 residences would view solar facilities located directly across a public roadway, of which 10 dwellings would also have solar arrays on the one other side or rear of their properties. An additional 44 dwellings would have solar facilities on one side or rear only, and four dwellings would have solar facilities on two sides or rear. No dwellings would face solar facilities from three or four sides of their properties. The vast majority of dwellings (i.e., 559 residences) in the Plan Area would have no solar or infrastructure facilities in their foreground views.

Most of the potentially affected dwellings are located in the rural community of Cantua Creek, where up to 20 existing dwellings would back directly onto planned solar project sites; 23 dwellings would face solar facilities across a public roadway; and seven residences would have rear views of nearby solar facilities across an existing stormwater basin. In Three Rocks/El Porvenir, two dwellings would have direct front views across SR-33 to a solar project site. The communities of Five Points and Westside/O'Neill would have no solar, energy storage, or infrastructure facilities constructed in their vicinities under the VCIP.

As noted, the City of Huron is surrounded by the Plan Area; however, the nearest DFA is located five miles north, the nearest collection substation is located six miles north, and no gen-tie lines are anticipated to be routed within these distances from the city limits. As such, no VCIP facilities would be visible from any location within the City of Huron.

The City of Mendota is located adjacent to the northeast corner of the Plan Area. The nearest DFA is located one mile west of the city limits, and the connecting transmission line would run in a north-south direction approximately 0.7 miles west of the city limits. The nearest collection substation would be located approximately 5.5 miles south, and no gen-tie lines are anticipated to be routed within one mile of the city limits. At these distances, the nearest VCIP facilities may be barely visible from the nearest vantage points in the City of Mendota.

Potential VCIP projects would comply with all applicable zoning and other regulations governing scenic quality. The Fresno County Zoning Ordinance requires all structures (except fences) to be setback 35 feet from a public road right-of-way<sup>2</sup>, which would provide a total of about 135 feet of separation from the front of a typical dwelling and the nearest solar arrays across the roadway (assuming a 60-foot road ROW, and a typical 40-foot setback to the dwelling façade)(Fresno County 2024a). On the other three sides, the required setback from the residential property line to the nearest solar arrays would be 20 feet which would accommodate the

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<sup>2</sup> Fresno County's Solar Facility Guidelines (Fresno County 2017) requires solar projects "to create a buffer between the proposed solar facility and adjacent agricultural operations" (Guideline No. 5). In its approval of recent solar and energy storage projects (e.g., Luna Valley, Key Energy Storage, Sonrisa), the County has interpreted this guideline to mean a minimum 50-foot buffer from the edges of a project's boundaries to the closest structural improvements or equipment, excluding fencing (Fresno County 2021a, 2023d, 2024f). In addition, the County's Guidelines for Solar Reclamation Plans state: "Applicants must work to achieve a minimum 50-foot buffer from the edges of property boundaries to the closest structural improvements or equipment (excluding fencing)(Fresno County 2025c). {00081327.1}

internal perimeter driveway within the outside fence line of the solar facility. The solar facilities typically would not include landscape planting within the setback zones adjacent to the affected residences, as the applicable regulations would not require such landscaping. However, many of the affected residential properties include trees and other landscaping within and around the dwellings which would provide some visual screening from the solar facilities. Yet, for most of the potentially affected dwellings, the introduction of solar facilities in their immediate vicinities would represent a substantial change to the character and quality of their visual settings.

With respect to VCIP infrastructure, there are no existing dwellings within one-half mile of the planned connecting transmission corridor or any planned collection substation, with the exception of the UC West Side Research and Extension Center (WSREC) near Calflax where three existing dwellings would be located approximately 600 feet from the transmission line. The tall steel poles associated with these facilities would be barely visible from residences a half mile away. At the WSREC, the view of the transmission line would be blocked by the dense stand of intervening trees and landscaping along the Center's frontage on W. Oakland Avenue. The routes of the gen-tie lines have not been determined, but it is expected that those lines would be similarly routed to avoid and provide some distance from existing residences. Therefore, the VCIP infrastructure elements would not represent a substantial change to the character and quality of the visual settings of dwellings within the Plan Area.

### **Motorists**

This viewer group includes people traveling on public roadways in the Plan Area. These roadways include the heavily traveled I-5 along the west side of the Plan Area, and the lightly traveled State Routes and County Roads which provide local transportation access to agricultural, commercial, and residential uses within the Plan Area. Motorists on I-5 generally consist of regional travelers who occasionally pass through the area. Motorists on local roadways generally are those who travel the area frequently and are familiar with the visual setting. Roadway views may be long or short in duration, and in some locations, motorists' views are screened by roadside vegetation such as orchards and occasional stands of mature trees and landscaping. The sensitivity of this viewer group is generally considered to be low to moderate.

As discussed under Impact AES-2 above, motorists on I-5 would likely notice the addition of six new solar facilities of varying sizes dispersed alongside the freeway over a distance of about 56 miles, as well as the one new transmission line crossing over the freeway. It is anticipated that the largest continuous solar project would run along the east side of the freeway for 3.6 miles, with other projects ranging in length from 0.1 to 1.2 miles along the freeway, for a total combined distance of about eight miles. The views of most of the solar facilities and the transmission line crossing would be brief with the longest duration view of solar arrays lasting about three minutes at freeway speeds on the eastside of the freeway (as provided above, the solar facilities would be visible on the westside of the freeway for a total of approximately two minutes). The visual prominence of the solar arrays along the roadside would be reduced by the 200-foot setback requirement from scenic highways as set forth in Fresno County General Policy OS-L.3, as applicable. While traffic volumes on I-5 are high, the typical travel experience through the San Joaquin Valley is long and monotonous with low visual quality. Given the brief duration of views that would change along the freeway, as visually reduced by setbacks from the freeway and the generally low visual sensitivity of motorists traveling I-5, the introduction of VCIP solar and transmission projects to the I-5 setting would not represent a substantial change to the character and quality of the existing visual setting of the I-5 freeway in the Plan Area.

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Motorists on State Routes and County Roads within the Plan Area would notice visual changes due to the development of VCIP energy and infrastructure projects. The most affected State Routes would be SR-33 and SR-269, and the most affected county roads would be N. Fairfax, N. San Diego, N. San Mateo, W. Manning, W. Mountain View, W. Clarkson, W. Mount Whitney, and S. Sonoma Avenues. These roadways are lightly traveled, mainly by local residents and workers who are accustomed to visual conditions along these routes. In some areas, the VCIP solar and energy storage facilities would form a continuous or near continuous scene of low-profile solar arrays and supporting structures for several miles along the roadside, in some cases along both sides of the roadway. These are also the areas that would be traversed by the connecting transmission corridor which would cross existing roadways or run alongside them for short distances at 12 locations. Upon completion, the connecting transmission corridor would include two parallel 500-kV transmission lines within a 450-foot right-of-way. The distances between the five connecting substations and the nearest public roadways would range from 0.1 to 0.5 miles. The visibility of the taller structural elements of the substations would vary by distance and would introduce prominent new structural features from the nearest viewpoints. The overall visual effect of solar, transmission, and substation development in these areas would be substantial.

In other portions of the Plan Area, such as the northwest, west and southern areas, the intensity of VCIP implementation would be much lower, with solar and energy storage facilities appearing intermittently in roadside views. Only one transmission tower line would pass through the western area, extending to the planned Manning Substation with two roadway crossings and a short run alongside an existing road. No VCIP collection substations would be located in these areas. The potential VCIP solar facilities in these areas would be intermittent. Because the rural agricultural landscapes would still predominate, the overall visual effect would likely be less than substantial in these portions of the Plan Area where VCIP implementation would occur at a lower intensity.

Overall, the VCIP energy and infrastructure facilities would represent a substantial change to the character and quality of the visual setting to motorists using the local highways and roads in the Plan Area. However, this effect would vary depending on the location of the roadway and the amount of VCIP development that would occur along it. In some areas, such as north, northeast, and east-central portions of the Plan Area, the effect on the motorist view group would be substantial, while in the northwest, west, and southern areas, the effect on the motorist viewer group would likely not be substantial. From a Plan-wide perspective, the motorists traveling along the local highways and roads in the Plan Area would experience a substantial change to the character and quality of their visual setting.

### **Commercial Employees**

This viewer group includes agricultural workers, employees at agricultural processing facilities, retail workers at highway commercial centers, and others. While engaged in their occupations (not commuting) these viewers may be in proximity to potential VCIP energy or infrastructure projects. The sensitivity of this viewer group is considered to be low to moderate.

Apart from agricultural jobs, there are few employment opportunities in the Plan Area, and these tend to be concentrated at the rural communities, highway commercial centers on the freeway, and nearby cities. In general, VCIP energy and infrastructure projects would not occur in proximity to these employment centers, with the exception of agricultural workers on lands adjacent to the VCIP facilities. Overall, it is expected that relatively few commercial employees would have direct visual access to VCIP facilities while on the job. Therefore, the VCIP energy and infrastructure facilities would not represent a substantial change to the character and quality of the visual setting to commercial employees.

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### **Recreational Users**

This viewer group includes those who utilize recreational opportunities in the area. The recreational destinations in and near the Plan Area include the Mendota Wildlife Area and the Pilibos Wildlife Area. These areas offer low intensity recreational activities such as hunting, wildlife viewing, and hiking. The sensitivity of this viewer group is considered high, although the number of recreationalists visiting these wildlife areas is relatively low compared to other viewer groups.

Recreational users at the Mendota Wildlife Area would view the potential VCIP solar facilities adjacent to the northwest and southwest corners of the wildlife area. The nearest connecting transmission line segment would be one mile south, and the nearest collection substation (No. 2) would be two miles west. The main entrance and visitor center at the wildlife area are at least one-half mile from the nearest potential VCIP solar project. This project would be visible from limited areas on the western boundary of the wildlife area. The Mendota Wildlife Area comprises almost 12,000 acres, most of which does not have visual access to the VCIP development areas or infrastructure. While the recreational viewer group has high visual sensitivity, the VCIP energy and infrastructure facilities would not represent a substantial change to the character and quality of the visual setting for recreational users of the Mendota Wildlife Area.

The Pilibos Wildlife Area is used for dove hunting and bird watching by appointment only. The nearest potential VCIP solar project would be adjacent to the wildlife area on the east. No VCIP infrastructure is planned in the vicinity. The eastern edge of the wildlife area has a continuous strip of natural vegetation which would provide some screening from the adjacent VCIP solar facility. While the recreational viewer group has high visual sensitivity, the adjacent low solar arrays would be screened by the intervening landscaping and would be set back from the wildlife area boundary. Therefore, implementation of the VCIP energy facilities would not represent a substantial change to the character and quality of the visual setting for recreational users of the Pilibos Wildlife Area.

### **Summary**

Overall, the scale of development contemplated under the VCIP energy and infrastructure plans would represent a substantial change to the character and quality of the visual setting of the Plan Area and its surroundings. However, the concentration and distribution of VCIP facilities would vary greatly by location within the Plan Area. Therefore, whether a particular VCIP energy or infrastructure project would substantially degrade the character or quality of the site and surroundings would depend on its location within the Plan Area. Several residential viewers in areas of the Plan Area where the most extensive development would occur would experience substantial changes in the visual character and quality of their settings. However, the majority of residential viewers in the Plan Area would experience limited or no visual changes due to implementation of potential VCIP projects and would not experience substantial changes in the visual character and quality of their settings. Similarly, some motorists, such as those on I-5 or in areas where less development is anticipated, would not experience a substantial visual change, while motorists traveling along local roadways like SR-33 where near-continuous development could occur would be subject to substantial visual changes. Commercial employees and recreational users would not be subject to substantial visual changes due to their limited public views of potential VCIP project sites.

In certain portions of the Plan Area where the most extensive contiguous solar and energy storage development is planned, implementation of the VCIP Energy Resource and Infrastructure Plans would substantially degrade the {00081327.1}

existing visual character and quality of the Plan Area and its surroundings, and the impact would therefore be significant. However, in substantial portions of the Plan Area, implementation of the VCIP Energy Resource and Infrastructure Plans would *not* substantially degrade the existing visual character and quality of the Plan Area and its surroundings. Where necessary, site-specific impact conclusions regarding implementation of individual VCIP projects would be made during subsequent CEQA review of those projects.

### **Mitigation Measure AES-1: Visual Mitigation**

To avoid or substantially reduce potential visual impacts from VCIP implementation, the following mitigation measures are identified for implementation at the project stage, as applicable:

- 1) For VCIP solar and energy storage projects located adjacent to public roadways: On the solar/energy storage project site, provide a 50-foot setback from the road right-of-way to the nearest project structure, not including fencing or internal driveways;
- 2) For residences with planned solar/energy storage projects contiguous to any residential property line: On the solar/energy storage project site, provide a 50-foot setback from the contiguous residential property line(s) to the nearest project structure, not including fencing or internal driveways;
- 3) At each VCIP energy resource and infrastructure project site, the following project elements shall be located as far as practicable from the nearest residence, and shall be located no nearer than 400 feet from the nearest residential property boundary: O&M yard and buildings; project substations; battery energy storage facilities, and construction staging and laydown areas.

### **Significance After Mitigation: Significant Unavoidable Impact.**

Application of the above mitigation measure to the design and construction of VCIP projects would reduce the overall potential aesthetic impacts of VCIP implementation, but not to a less-than-significant level. Given the overall scale of VCIP energy and infrastructure development, the aesthetic impact of VCIP implementation as a whole would be significant and unavoidable after mitigation. The aesthetic impact of any given VCIP project may be found to be less than significant, however, depending on that individual project's circumstances. For example, in the environmental impact reports (EIRs) prepared for five large utility-scale solar and energy storage projects (ranging in size from 1,250 to 4,000 acres) in Fresno County since 2020, each EIR concluded that the aesthetic impacts associated with those projects would be less than significant without mitigation (Fresno County 2020, 2021a, 2021b, 2023d, 2024f). The significance of aesthetic impacts associated with individual projects under VCIP would be determined at the site-specific level of CEQA review, as applicable, for each project.

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### **Impact AES-4. Light and Glare**

The VCIP energy and infrastructure projects would introduce new sources of light and low-level glare to the Plan Area; however, the VCIP facilities would be specifically designed and constructed to minimize light and glare and would not adversely affect day or nighttime views in the area. (*Less-than-Significant Impact*)

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## **Lighting**

Existing nighttime conditions throughout the majority of the Plan Area are essentially dark with isolated light sources associated with its small communities, ranch complexes, agricultural processing plants, a federal prison, solar generating facilities, and substations, among other facilities and features. The I-5 corridor is also a source of night lighting from the streams of headlights on the highway and bright lighting at commercial centers at the interchanges.

The potential VCIP solar and energy storage facilities would introduce new sources of light to the area, although permanent exterior lighting would be mainly located at the site entrances, the operations yards, and the substation/switching stations. As described in Section 2. *Project Description*, subsection 2.5.1.1.1. *Typical Solar Project Components*, within the solar fields and energy storage facilities, lighting would be confined to the inverter/transformer pads, which would be activated only when needed by switch or motion sensors. There would be no permanent lighting within the solar fields, along any internal access driveways, or around the perimeters of the facilities. All lighting would be low in intensity, no brighter than required to meet safety and security requirements and would be directed inward and downward to avoid direct illumination of adjacent properties and public rights-of-way (Fresno County Zoning Ordinance, section 820.3.080). Mobile lighting, if needed for occasional nighttime equipment repair and replacement, would be directed away from external boundaries.

During the construction phase for each solar and energy storage facility, the construction staging areas would have security lighting, but staging areas would be located at least 400 feet away from any existing residences, as provided in Mitigation Measure AES-1 (MM AES-1) above (under Impact AES-3). Temporary night lighting for construction of these solar/BESS projects would be needed on rare occasions when construction activity extends into the evening hours, but construction activity would always cease by 9:00 PM, as required by Fresno County's Noise Ordinance (see Sections 4.13. *Noise*, under "Regulatory Context," 4.16 *Transportation* under "Road Segment Analysis" "[f]ew if any workers would arrive after 7:00 AM, and relatively few would depart after 5:00 PM], and 2.0 *Project Description* under "Workforce"). As with mobile lighting during facility operations, the temporary lighting would provide the minimum illumination needed and would be directed away from facility boundaries. Additionally, for safety reasons, a limited number of specialized construction tasks, such as final electrical terminations, must be performed after dark when no energy is being produced. However, these activities would involve much fewer workers than the typical construction activities, and lighting would provide the minimum illumination and would be directed away from facility boundaries. Therefore, these limited nighttime activities would not create a new source of substantial light that would adversely affect nighttime views in the area. Finally, as the vast majority of routinely scheduled construction activity would take place during daylight hours, lighting from workers' headlights while commuting to and from the project sites would occur infrequently.

Construction of the proposed gen-ties, transmission facilities, and collector substations would occur during daylight hours. However, in the event nighttime construction may occasionally be required, temporary lighting would be required for security and safety. Night lighting may also be required for security at staging areas, although it is expected that these staging areas would be located away from existing residences. It is noted that the anticipated connecting transmission corridor would be routed to be at least 0.5 miles from existing residences (the only exception is the WSREC at Calflax, where three residences are 600 feet south of the transmission corridor, although these homes have dense landscaping along their north frontages which would shield most incoming light). The temporary staging areas for transmission construction would be located within or adjacent to the transmission right-of-way, as a practical matter, so it is unlikely the staging areas would be

located near any residences; however, the 400-foot setback distance identified in MM AES-1 would ensure that a separation distance is provided. Any such lighting would be directed inward toward the work areas and direct lighting beyond the work areas would be avoided. Thus, although the residences would perceive the temporary light sources in the vicinity, they would not be subject to the direct glare of lighting which would be positioned and oriented to avoid direct visibility of the light source from adjacent and nearby properties. In the unlikely event that nighttime work on transmission lines would be needed, night lighting at any transmission work site would be temporary since each tower would be completed in a matter of days, and works sites for conductor stringing would continuously shift along the transmission route. Once completed, the transmission lines would not include lighting, so no new sources of light would occur. The collection substations would require low-intensity security lighting, but none of the five potential substations is planned within one-half mile of an existing dwelling.

Potentially sensitive receptors to unwanted illumination primarily include the existing residences in the area. Most ranches and residential properties include trees around the dwellings and often have frontage landscaping along the roadway to provide visual screening. However, with implementation of the setback requirements set forth in MM AES-1 above, it is not anticipated that project elements with permanent lighting, such as operations yards or substations, or temporary facilities such as construction staging areas, would be located in proximity to existing ranches, dwellings, or rural communities. While the general increase in indirect low-intensity night lighting would be noticeable at existing residences, the new sources of light would not be substantial and would not adversely affect nighttime views from existing residences in the Plan Area. The recreational and commercial worker viewer groups would generally not be present in the Plan Area at night, so the effect of increased night lighting on these groups would not be substantial and impact would be less than significant.

Motorists along the roadways traversing the Plan Area would notice the increased light sources associated with VCIP solar and energy storage development. The main source of existing night lighting for motorists is from headlights of oncoming vehicles. Proposed project operations would involve few permanent staff (e.g., a typical 250 MW solar/BESS facility would have up to 10 permanent operations staff, and daily average of five part-time staff), so the increase in nighttime traffic from VCIP projects would be insubstantial. Within the Plan Area, a few areas within each facility would be illuminated with low intensity lighting. Since the solar fields would not be illuminated, much of the Plan Area would remain in darkness. While the general increase in night lighting would be noticeable, the effect on motorists would not be substantial and would not adversely affect nighttime views in the Plan Area.

Implementation of VCIP projects would introduce new sources of permanent and temporary nighttime lighting to the Plan Area, but the light sources would be low intensity, downward directed and isolated. Since the solar fields and transmission lines would not be illuminated, the vast majority of the Plan Area would remain in darkness. The residents in the vicinity of the solar facilities and motorists on the area roadways would notice an increase in night lighting but the overall dark rural quality of the Plan Area would be largely maintained. Therefore, the lighting impacts resulting from VCIP implementation would be *less than significant*.

### **Glare**

Glare is an intense light effect resulting primarily from sunlight reflecting off surfaces when the angle of the sun to the surface directs sunlight toward the receiver, causing potential discomfort or distraction of the receiver, or potential impairment of vision under extreme conditions. The main source of potential glare within the Plan Area would be from solar panels.

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All solar panels installed within the Plan Area would be composed of photovoltaic (PV) cells. Solar PV employs glass panels that are designed to maximize absorption and minimize reflection to increase electrical production efficiency. Untreated silicon reflects about one-third of incoming sunlight. To limit reflection, solar PV panels are constructed of dark, light-absorbing materials, and are given an anti-reflective coating or textured surface. With the addition of the anti-reflective coating or treatment, reflectivity can be reduced to less than four percent (4%) of incoming sunlight (EE Times 2012). Modern PV panels reflect as little as two percent of incoming sunlight, about the same as water and less than soil or even wood shingles (NREL 2018). Potential VCIP projects would use only these anti-reflective PV panels. In comparison, the reflectivity of standard glass is over 20 percent, or about double that of uncoated solar panels. By contrast, concentrating solar thermal systems, which employ arrays of highly polished mirrors to refocus the solar radiation on a receiving tube or tower, reflect about 90 percent of the incoming sunlight (FAA 2018).

In addition, PV solar systems are designed to maximize absorption of sunlight by keeping the panel surfaces oriented directly to the sun as much as possible. When the sun is high in the sky, sunlight is reflected skyward. However, when the sun is low in the sky (i.e., at dawn or dusk), the angle of reflectance increases, thereby increasing the potential for reflection at or near ground level. The potential for ground-level reflection is greatest with fixed-tilt solar arrays. When the sun is very low in the sky at sunrise and sunset (i.e., in the east or west), there is potential for sunlight to be reflected obliquely from the east-west oriented panels at a similarly low angle to observers at ground level. However, given the anti-reflectance design of all solar modules, as discussed above, any reflected light would not produce glare at ground-level receivers. The potential for ground-level reflection is further reduced by tracking systems, which are currently utilized in most solar facilities and are expected to be used in most if not all VCIP solar projects since they can increase the solar energy production on a site by 15 to 25 percent over fixed tilt systems (SPW 2018). Solar arrays mounted on trackers are installed in a north-south orientation, which allows the panels to follow the sun across the sky from east to west. Since tracking systems minimize the angle of incident sunlight at the panel surface, the angle of reflectance is also smaller, thus tending to direct reflected sunlight skyward even when the sun is low in the sky.

Since solar panels are designed specifically to maximize absorption of sunlight and minimize loss of incident sunlight through reflection, the potential for glare is also greatly reduced even during occasional periods when sunlight from module surfaces may be reflected to ground-level receivers. Under such conditions, the modules may produce a dull reflection of low intensity light, but would not result in intense glare that would adversely affect views in the area or cause discomfort to receivers. (See Figures 2.5-1 and 4.1-2 for photos of typical solar arrays, and Figure 2.5-4 for photo of a typical battery storage system.)

Regarding the VCIP Infrastructure Plan, the towers, conductors, insulators, and other electrical equipment at the gen-tie lines, connecting transmission lines, and collection substations could include potentially reflective surfaces that could cause glare. However, the materials typically utilized for these types of infrastructure projects are non-reflective and non-refractive, or would be treated with non-reflective coatings. For example, monopoles and other structural elements used for gen-tie and transmission lines are galvanized in a “hot dip” process which produces a dull finish without a reflective sheen (see Figure 4.1-2 for photos of typical transmission towers, and Figures 2.5-3 and 2.5-6 for photos of typical substations.) Therefore, the potential for increased glare from VCIP infrastructure facilities would not be substantial.

The VCIP solar, energy storage, and infrastructure facilities would utilize structural elements which minimize glare, and the low intensity reflected light produced by these facilities would not have a significant adverse effect on views from potential ground level receivers or motorists in the area. (See Section 4.9. *Hazards and Hazardous*

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*Materials* for discussion of potential glare hazard to aviation.) Therefore, the potential glare impacts resulting from VCIP facilities would be *less than significant*.

### **Summary**

Implementation of the VCIP energy and infrastructure projects would introduce new sources of potential light and glare to the Plan Area; however, the VCIP facilities would utilize structural elements which minimize light and glare, and would not adversely affect day or nighttime views in the area, and the impact would be *less than significant*.

**Mitigation Measures: No mitigation is required.**

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## **4.1.3.2. TRANSMISSION CORRIDORS OUTSIDE THE VCIP**

The transmission corridors for delivery of solar generation from potential VCIP projects to urban electricity markets in northern and southern California have been identified at a conceptual level in this PEIR to allow a general discussion of environmental impacts associated with transmission line development for informational purposes. These transmission delivery corridors extend far beyond the District's boundaries and are not part of the proposed VCIP. Planning and approval of these outside transmission lines are under the jurisdiction of the state and federal energy regulatory agencies, public utilities, and cities and counties traversed by the transmission corridors. The following discussion provides an overview of potential impacts of the outside transmission lines with respect to aesthetics.

### **Effects on Scenic Vistas**

The outside transmission corridors would traverse the flat farmlands of the San Joaquin Valley, the desert landscape of the Antelope Valley, and the rugged terrain of the Coast Ranges, the Tehachapis, and the foothills of the San Gabriel Mountains. In several areas, the transmission lines would be visible in scenic vistas as viewed from public roadways, private residences, and recreational areas. However, the transmission lines would largely consist of narrow-profile steel monopoles which would comprise small elements in the context of broad scenic vistas. In all corridors, the new transmission lines would parallel existing transmission lines, which consist almost entirely of more visually dominant steel lattice towers. Addition of a new line of parallel monopoles would be noticeable but would not introduce a new visually dominant element to any existing view. Therefore, the outside transmission corridors would not be expected to have a substantial adverse effect on a scenic vista.

### **Effects on Scenic Resources**

The delivery transmission lines extending outside the Plan Area to regional load centers would have a total corridor length of approximately 348 miles and would pass through ten counties (see Figure 2.4-1). There are several scenic resources along the outside transmission corridors, some of which are recognized in county planning documents. Along the northern transmission corridor, these scenic resources generally include the foothills of the Coast Ranges in Fresno, Merced, Stanislaus, and San Joaquin counties, which includes the State Recreation Areas at the San Luis and Los Banos Reservoirs. Along the western corridor, scenic resources include the mountains and interior valleys in the Coast Ranges, and the nearby wildlife refuges at Elkhorn Slough and

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Moss Landing at Monterey Bay. The southern transmission corridor passes through the remote mountain landscapes of the Tehachapis in Kern County and the Mojave Desert landscapes of northern Los Angeles County, including the nearby Antelope Valley California Poppy Preserve and the foothills of the San Gabriel Mountains. All transmission routes would avoid the listed refuges and preserves by at least one mile, and would encroach slightly on the State Recreation Areas at the San Luis and Los Banos Reservoirs. The outside transmission lines would not have a direct physical impact on any known scenic trees, outcroppings, or historic buildings, although there is potential for the new transmission lines to run within sight of such features.

The outside transmission corridors would cross or run parallel to several state- and county-designated scenic highways. Along the northern transmission corridor, I-5 is a designated state scenic highway north of SR-152. The I-5 segments in Fresno and Merced counties are designated as county scenic highways, but the Stanislaus County segment is not. In Merced County, SR-152 west of I-5 is a state- and county-designated scenic highway. The segment of I-580 in San Joaquin County is a state and county-designated scenic highway. In the western corridor, the transmission route crosses I-5, a Fresno County scenic highway; SR-25, a San Benito County scenic highway; and SR-156, a State scenic highway, as well as two proposed scenic routes in Monterey County. The southern corridor crosses several Priority Scenic Drives in Los Angeles County as designated in the Antelope Valley Area Plan. The outside transmission corridors cross no designated or eligible scenic highways in Kern, Kings, Stanislaus, or Alameda Counties.

The outside transmission lines would mainly consist of steel monopoles, with a narrow profile and low visibility at a distance. In the mountain segments, the towers may consist of steel lattice structures for greater stability on the thin soil cover. In either case, the towers would run parallel to existing tower lines, so the new transmission lines would not introduce new structural elements to a pristine scenic resource. Throughout the entire 348-mile length of the outside transmission corridors, the lines would cross scenic highways at no more than five locations. Along I-5, the northern transmission line would run to the west of the existing multiple tower lines that parallel the freeway and would run behind the first ridge and beyond sight of motorists on I-5 for much of that route.

The outside transmission lines would cross over or run within sight of scenic resources within their settings, but would not result in substantial damage to scenic resources.

#### **Substantially Degrade Visual Character and Quality**

The transmission lines in all three outside corridors would run parallel and adjacent to existing transmission lines, which are integral elements of their visual settings under existing conditions. Thus, the new transmission lines would represent incremental visual changes to the overall settings, which already include similar prominent linear elements. The new transmission lines and towers would require minimal new access roads since they would be readily accessible via existing farm roads in the valley areas, and would utilize existing tower access roads in the mountainous areas. Construction at each tower site would introduce equipment, materials and activity to the settings but the duration of construction at any given location would be brief. To the affected residential, motorist, commercial employee, and recreational viewer groups, the visual changes resulting from the new transmission lines would be noticeable but would not constitute a substantial change in the character of the settings. Therefore, the outside transmission lines would not substantially degrade the existing visual character or quality of the transmission corridors and their surroundings.

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### **Light and Glare**

The outside transmission lines would not introduce new sources of light to their settings. During construction, mobile night lighting may be employed if work extends beyond daylight hours, but once completed the transmission lines would include no permanent sources of night lighting. The transmission towers and conductor cables would be treated with non-reflective surfaces or treatments to avoid glare. Thus, the transmission lines would not introduce new sources of daytime glare. The outside transmission lines would not create new sources of substantial light or glare that would adversely affect day or nighttime views in the area.

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### **4.1.3.3. CUMULATIVE IMPACTS**

The methodology for conducting the cumulative impact analysis is described in Section 4.0.5. *Cumulative Impacts*. As discussed in that Section, the analysis considers whether the impacts of two or more past, present, or reasonably foreseeable future projects, including the proposed VCIP, would combine to result in a cumulatively significant impact. Two or more projects would have the potential to result in cumulative visual impacts if they are located in the same field of view of a given observer.

The extent of an aesthetic impact tends to be limited to the viewshed of a given project, which consists of the surrounding lands from which the project would be visible to observers. Given the essentially flat terrain of the Plan Area, prominent objects introduced under the VCIP (e.g., substation components up to 140 feet tall) would be visible by observers with an unobstructed view from as far as two to three miles. However, the object's visual prominence would be substantially reduced beyond one mile. Accordingly, for purposes of analysis in this PEIR, the geographic scope of the cumulative analysis of aesthetic impacts is considered to extend approximately three miles from any given project site.

### **VCIP Energy Resource and Infrastructure Plans**

#### **Effects on Scenic Vistas**

As discussed under Impact AES-1, the Plan Area consists of essentially flat agricultural land typical of the west side of the San Joaquin Valley, with no topographic variation or features to provide visual interest or vantage points for panoramic views or scenic vistas. Although the foothills to the west are a recognized scenic resource, they form the distant background from viewpoints in the Plan Area and are not visually dominant elements in the landscape. There are no views from the valley floor which would be considered scenic vistas. Similarly, there are no publicly accessible views available from the western foothills over the Plan Area that would be considered scenic vistas.

Most of the cumulative projects are very similar visually to the potential energy and infrastructure projects proposed under the VCIP. In general, the structural elements of the cumulative projects would consist mainly of low-profile solar arrays, small and medium scale substations, and narrow profile gen-tie towers. These projects would not block views of the hills and mountains, nor would they constitute a substantial change in the few low quality, long-distance views available from the western foothills. Therefore, the combined effects of the VCIP energy and infrastructure projects and the other cumulative projects would not result in a

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cumulatively substantial adverse effect on a scenic vista; the VCIP's incremental contribution would not be cumulatively considerable, and the cumulative impact would be *less than significant*.

### **Effects on Scenic Resources**

As discussed in Section 4.1.1. *Environmental Setting*, there are no historic buildings, rock outcroppings, or notable trees or other scenic resources within or near the VCIP Plan Area. The only scenic highways in the vicinity of the Plan Area are a segment of SR-198 extending west from I-5 to the Monterey County line, and the entire length of I-5 within Fresno County. As mentioned, the foothills of the Coast Ranges to the west of I-5 are a recognized scenic resource. There are no other recognized scenic resources within the cumulative study area.

As discussed under Impact AES-2, several DFAs are located alongside I-5, but these are dispersed along the 56-mile length of this freeway segment and setbacks from the freeway right-of-way would reduce visual effects to motorists, a viewer group which has low to moderate visual sensitivity. Therefore, implementation of the potential VCIP projects would not result in damage to scenic resources.

Two cumulative projects are planned in the vicinity of the I-5 and SR-198 scenic highways. The first project consists of additional commercial development at the existing highway commercial center at the I-5/SR-198 interchange. This project would represent an incremental expansion of an already substantial commercial center and would not result in damage to the scenic resources of these highways. The nearest DFA is two miles northeast of the interchange and would not have an adverse effect on the scenic highways. Therefore, the combined effect of the additional commercial development and VCIP projects within the nearest DFA would not result in cumulative damage to these scenic highways.

The second cumulative project is the planned Manning Substation located one mile west of I-5 south of W. Manning Avenue, a distance at which the substation would not adversely affect the scenic quality of the freeway. The VCIP connecting transmission line to the Manning Substation would cross over I-5 but would be visible fleetingly by passing motorists and would not have a substantial visual effect. A relatively small (40-acre) DFA is located over one-half mile from both the planned Manning Substation and I-5. At these distances, a small VCIP solar and energy storage project on the 40-acre site would not combine with the Manning Substation to result in cumulative damage to this scenic highway.

Implementation of the VCIP energy and infrastructure projects would not combine with other cumulative projects to result in damage to a scenic resource; the incremental contribution of VCIP projects would not be cumulatively considerable, and the cumulative impact would be *less than significant*.

### **Substantially Degrade Visual Character and Quality**

The past, present and reasonably foreseeable future projects within ten miles of the Plan Area's external boundaries are listed in Table 4.0-2 and shown in Figure 4.0-1.<sup>3</sup> Among these cumulative projects are several solar facilities within three miles of DFAs within the Plan Area. The largest of these include: the completed Tranquillity, Scarlet, Little Bear, North Star, and Adams East solar projects; the approved but not yet constructed Luna Valley solar project and Key Energy Storage project. Other cumulative projects that share a viewshed with

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<sup>3</sup> Table 4.0-2 and Figure 4.0-1 include a total of 72 cumulative projects; however, four of these projects comprise solar/BESS projects within the VCIP DFAs. Since the plan level impacts of the DFAs, including these projects, are addressed in the main impact analysis sections of this PEIR, they are not addressed again in the cumulative analyses. {00081327.1}

potential VCIP projects include the proposed Manning Substation, the planned highway commercial developments at the I-5/SR-198 interchange and at the junction of SR-198/SR-269, and the planned Kamm Avenue and Stamoules pistachio plants.

Under existing conditions, the largest concentration of operating solar facilities is along SR-33 between W. South and W. Nebraska Avenues, where the Tranquillity, Scarlet, and Adams East solar facilities comprise a near-continuous field of solar arrays on both sides of the highway for 3.5 miles. However, due to the width of the highway right-of-way (90 feet), the varying setbacks to the first solar equipment on both sides of the highway, and the low profile of the solar arrays, the roadside views consist of essentially level fields of solar arrays and occasional substations visible in the distance, and the view of the distant horizon is not obstructed. Implementation of the VCIP solar and energy storage projects along SR-33 would add approximately 16 miles of solar fields on at least one side of SR-33. With implementation of the 50-foot setback distance from public road rights-of-way identified in MM AES-1, the solar arrays on either side of the highway would be separated by approximately 190 feet. For the motorists passing through this area, the nearest solar arrays would be at least 90 feet away. The overall viewing experience from the highway would be altered from flat agricultural fields to slightly raised but essentially flat solar fields. Motorists would not experience a tunnel effect because of the minimum setbacks and the distant views to the horizon would remain unobstructed due to the low-profile nature of the solar facilities. Three other cumulative projects would be located adjacent to VCIP solar and energy storage projects, with a combined length of solar arrays along the affected roadways of 1.0, 1.5, and 4.0 miles, respectively.

There are two instances where a VCIP connecting transmission line would cross over or run alongside an existing roadway in the vicinity of a cumulative project. The first is an approximately one-half mile segment of a VCIP transmission corridor that would run along the north side of W. California Avenue, opposite the existing Little Bear Solar Facility. The second is a VCIP transmission line crossing over W. Manning Avenue just east of the Scarlet Solar Project. In both instances, the combined visual effect would not be substantial given the brief duration of visual contact and the low to moderate visual sensitivity of the motorist viewer group.

To determine the cumulative effect on the motorist viewer group, the low to moderate visual quality of the existing setting is considered in combination with the low to moderate visual sensitivity of the motorist viewer group. While one utility-scale solar and energy storage project would represent a moderate level of change to the setting within a limited viewshed, the combined visual effect of all potential VCIP projects throughout the Plan Area would be substantial, and the addition of the cumulative projects would increase the substantial change to the existing visual character or quality of the Plan Area and its surroundings.

For the residential viewer group, there are several cumulative projects located within the viewsheds (i.e., within 3 miles) of the VCIP DFAs. In one case, existing dwellings would be located within one mile of both a potential VCIP solar/energy storage project and an existing solar project. Here, a cluster of five residences on S. San Mateo Avenue would be located adjacent to a VCIP solar project on one side, with the Giffen-A Solar Facility located 700 feet to the north. However, the intervening land is occupied by a mature almond orchard which screens the view of the existing solar facility from the residences, so there would be no cumulative visual effect.

There are no other cumulative projects in the Plan Area vicinity which would combine with the potential VCIP energy or infrastructure projects to result in a cumulative visual effect upon a sensitive viewer group. With respect to the commercial worker and recreational viewer groups, the instances where either group would be

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visually exposed to both a VCIP project and a cumulative project in the same viewshed would be brief and infrequent and thus would not represent a substantial cumulative effect with respect to these groups.

Overall, the visual effect of potential VCIP solar and infrastructure development combined with other pending, approved, and completed projects in the Plan Area vicinity would substantially alter the existing visual character or quality of the Plan Area and its surroundings. While implementation of Mitigation Measure AES-1 (i.e., increased setbacks from public roadways and existing residences) would reduce the impact for individual residences and motorists, at the overall scale of the VCIP combined with other pending, approved, and completed development, the incremental contribution of VCIP projects would be cumulatively considerable and the cumulative aesthetic impact would be *significant and unavoidable*.

### **Light and Glare**

Existing nighttime conditions throughout the majority of the Plan Area are essentially dark with isolated light sources associated with its small communities, ranch complexes, agricultural processing plants, a federal prison, solar generating facilities, substations, and other facilities and features. The I-5 corridor is also a source of night lighting from the streams of headlights on the freeway and bright lighting at commercial centers at the interchanges.

Implementation of the VCIP solar and energy storage facilities would introduce new sources of light to the area, although exterior lighting would be mainly located at the site entrances, the operations yards, and the substation/switching stations. Lighting within the solar fields and energy storage facilities would be confined to the inverter/transformer pads, which would be activated only when needed by switch or motion sensors. There would be no lighting within the solar fields, along any internal access driveways, or around the perimeters of the facilities. As required by the Fresno County Ordinance Code section 820.3.080, fixed lighting would be low in intensity, no brighter than required to meet safety and security requirements, and would be directed inward and downward to avoid direct illumination of adjacent properties and public rights-of-way. Mobile lighting, if needed for occasional nighttime equipment repair and replacement, would be directed away from external boundaries. The transmission lines would not include night lighting. The cumulative projects consist mainly of large-scale solar and energy storage projects which would be required to limit night lighting to essential purposes under the Fresno County Ordinance Code and substantially similar requirements contained in any other applicable ordinance codes (e.g., Kings County Development Code, sections 114(A)(5), 418(E)).

The other cumulative projects, such as the highway commercial development, the pistachio plants, and the Manning Substation, would also introduce new sources of light to the area. The highway commercial developments would include relatively bright lighting, but the increase in night lighting at those locations would be incremental given the presence of existing bright light sources at those locations. The pistachio plants and substation would have low intensity lighting.

Potentially sensitive receptors to unwanted illumination primarily include residences and motorists in the area. While the general increase in night lighting would be noticeable at existing residences and to passing motorists, the cumulative effect would not be substantial because the new sources of low-intensity light would be dispersed over a broad area and would not combine to create a substantial increase in nighttime lighting.

Regarding glare, solar panels are designed specifically to maximize absorption of sunlight and minimize loss of incident sunlight through reflection. At most, the modules may produce a dull reflection of low intensity light but {00081327.1}

would not result in intense glare that would adversely affect views in the area or cause discomfort to receivers. The cumulative solar and energy storage projects would be expected to produce similarly low levels of glare, and the cumulative effect would not be substantial.

Implementation of the VCIP energy and infrastructure projects would introduce new sources of light and low-level reflectance from hard surfaces to the Plan Area. However, the VCIP facilities and most cumulative projects (with the possible exception of the highway commercial projects) would be specifically designed and constructed to minimize light and glare, and would not combine to result in any substantial adverse effect on day or nighttime views in the area. The incremental contribution of VCIP projects would not be cumulatively considerable and the cumulative impact would be *less than significant*.

## Outside Transmission Corridors

The outside transmission lines would largely consist of narrow-profile steel monopoles that would comprise minor visual elements in the context of broad scenic vistas. In all corridors, the new transmission lines would parallel existing transmission lines, which consist entirely of more visually dominant steel lattice towers. The addition of a new line of parallel monopoles would be noticeable but would not introduce a new visually dominant element to any existing view. Therefore, the outside transmission corridors would not have a substantial adverse effect on a scenic vista. Since the outside transmission corridors run through rural agricultural lands and rugged mountains and foothills, any cumulative development in their vicinity would consist mainly of rural residences. While most of the affected counties allow solar PV projects on agriculturally designated lands, it is not reasonably foreseeable which lands, if any, in the vicinity of the transmission corridors would be proposed for solar and energy storage development in the future. Also, additional transmission facilities or other public utility uses could be planned for nearby lands, but the extent of such facilities likewise is not reasonably foreseeable at this time. Because the nature and/or locations of such cumulative development are not reasonably foreseeable, descriptions and analyses would be speculative and thus are not discussed further.

The probable rural residences that could be constructed in the vicinity of the outside transmission corridors would not introduce visually dominant elements to any scenic vistas. As such, the combined visual effect of new transmission lines and new residences in viewsheds where transmission lines are already present would not be substantial, and the cumulative impact would be *less than significant*.

Regarding scenic resources, the outside transmission lines would cross over or run within sight of recognized scenic resources such as scenic highways within their settings, but would not result in substantial damage to such scenic resources. Any cumulative development in the vicinity would consist mainly of dispersed rural residences, which would not damage scenic resources along scenic highways or elsewhere. The combined visual effect of new transmission lines and new residences in or near scenic resources where transmission lines are already present would not be substantial, and the cumulative impact would be *less than significant*.

With regard to visual character and quality, the visual changes resulting from addition of new transmission lines alongside existing transmission lines would be noticeable but would not constitute a substantial change in the character and quality of their settings. Cumulative development in the vicinity of the outside transmission corridors would mainly consist of dispersed rural residences, which also would not result in a substantial change in the character and quality of the setting. The combined visual effect of new transmission lines and new residences within common viewsheds where transmission lines are already present would not result in a

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substantial change in the character and quality of the settings, and the cumulative impact would be *less than significant*.

Regarding lighting and glare, the outside transmission lines would not introduce new sources of light and glare, and thus would have little or no impact in this respect. As such, the contribution to any cumulative lighting and glare impacts would not be considerable, and the cumulative impact associated with the outside transmission lines would be *less than significant*.

The combined visual effects of the outside transmission lines and other cumulative development in their settings would not have a substantial adverse effect on scenic vistas, would not result in substantial damage to scenic resources, would not substantially degrade existing visual character or quality of their settings, and would not create new sources of substantial light and glare. Therefore, the cumulative aesthetic impact associated with the outside transmission corridors would be *less-than-significant*.

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