4. Environmental Impact Assessment

This chapter examines the potential environmental impacts of the Proposed Project. The analysis of each resource subject area begins with an examination of the environmental setting that may be affected by the Proposed Project. The effects of the Proposed Project are defined as changes to the environmental setting that are attributable to the construction and/or operation of the Proposed Project. Significance criteria are identified for each environmental issue area following the CEQA checklist. The significance criteria serve as a benchmark for determining if a project would result in significant adverse environmental impacts when evaluated against the baseline conditions. CEQA Guidelines define a significant effect on the environment as “…a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the Project…”

Throughout the project design, SCE has incorporated specific Applicant Proposed Measures to avoid and/or minimize environmental impacts. These measures are distinguished from mitigation measures required under CEQA. CEQA Guidelines Section 15126.4 (a)(3) states that mitigation measures are not required for effects which are not found to be significant. Therefore, where an impact is less than significant, no Applicant Proposed Measures have been proposed. In addition, compliance with laws, regulations, ordinances, and standards designed to reduce impacts to less than significant levels are not considered mitigation measures under CEQA.

4.1 Aesthetics

This section describes the visual resources and aesthetic setting in the Proposed Project area and discusses the regulatory setting, and potential impacts to aesthetics and visual resources.

4.1.1 Environmental Setting

Ridgecrest is located in the southern portion of the Indian Wells Valley in the northeast corner of Kern County. The City of Ridgecrest’s aesthetic setting can generally be described as an urban area set within a rural backdrop. The City is situated within the upper Mojave Desert and is surrounded on all sides by four mountain ranges: the Sierra Nevada Mountains to the west, the Coso Range to the north, the Argus Range on the east, and the El Paso Mountains to the south. Vistas of the mountains and the surrounding desert are found throughout the City. Desert landscapes in the Proposed Project area are comprised of creosote-white bursage series and a disturbed ruderal sink community at the proposed Downs Substation expansion location. Along the Inyokern-McGen-Searles 115 kV subtransmission lines the landscape includes vegetation communities dominated by desert holly (Atriplex hymenelytra) and spiny hopsage (Grayia
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spinosa) (Atriplex/Grayia Community), and a rusty molly (Kochia californica)-dominated community (Kochia Community).

The City of Ridgecrest is characterized by low-rise buildings (one or two stories), lower density residential, and commercial uses surrounded by vast open space. Most of the City’s higher intensity development (commercial, office, civic, and institutional uses) lie adjacent to primary thoroughfares such as Ridgecrest Boulevard, Highway 178, Bowman Road, and China Lake Boulevard. Concentrations of nonresidential land uses along these thoroughfares create a largely linear urban form with focal points of intensive uses at the intersections of arterial streets. Less intensive land uses, including rural residential and natural open space, are located on the urban fringe of the City.

The existing Downs Substation is located at the intersection of two major travel corridors: the north-south aligned Downs Street and the west-east aligned Ridgecrest Boulevard. The land parcels surrounding this intersection are zoned for commercial and industrial use. A hardware store/lumber yard occupies the northeast corner of the intersection; an automobile recycling operation is located to the east; the northwest corner is vacant land (with a large, single-story light industrial-type building just to the north and visible from the intersection); and the existing Downs Substation occupies the southwest corner. The proposed Downs Substation expansion would be located west of and directly adjacent to the existing substation. Also visible from the intersection are baseball fields and a dairy products company to the south (see Figure 4.1-1).

Vertical, man-made features are common in the area. Existing poles, conductors, and lines are established landscape features throughout the Proposed Project area. Two tall communication towers are visible to the northeast of the substation, and the adjacent recreational fields are illuminated by tower lights to facilitate nighttime play. The entirety of the routes where the proposed fiber optic telecommunication cable would be strung is characterized by existing electrical transmission poles.

There are no unique or highly scenic landscape features in the immediate vicinity of the Proposed Project area; the surrounding mountain ranges provide for scenic background views. Pictures of the existing conditions surrounding Downs Substation are shown in Figure 4.1-1.

There are no scenic highways in the vicinity of Downs Substation: State Highway 14, located more than four miles to the west, is eligible for listing as a State Scenic Highway, but has not been officially designated as a scenic highway.
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4.1.2 Regulatory Setting

4.1.2.1 Federal

It is anticipated that the Proposed Project would be reviewed utilizing BLM’s Visual Resources Management methodology as part of the BLM’s NEPA process.

4.1.2.2 State

*California Streets and Highway Code, Sections 260-263*—These Sections define the State’s scenic highways. Highway 14 from Route 58 near Mojave to Route 395 near Little Lake is identified in the Code as being eligible as a scenic highway.

4.1.2.3 Local

Although this Proposed Project is exempt from local land use and zoning regulations, CPUC General Order No. 131-D, Section III. C requires “the utility to communicate with, and obtain the input of, local authorities regarding land use matters and obtain any nondiscretionary local permits.” In addition, SCE has considered local land use plans relevant to aesthetics as part of the current environmental review process. The documents SCE reviewed are listed below.

4.1.2.3.1 Kern County General Plan

The Kern County General Plan contains no definitions related to aesthetics or visual resources that would be applicable to the Proposed Project.

4.1.2.3.2 County of San Bernardino 2007 General Plan

The Conservation Element of the General Plan lists as a goal to “[p]reserve the unique environmental features and natural resources of the Desert Region, including native wildlife, vegetation, water and scenic vistas” (Goal D/CO 1). This is supported by Policy D/CO 1.2, which requires “future land development practices to be compatible with the existing topography and scenic vistas, and protect the natural vegetation.”

The Open Space Element of the General Plan defines a scenic resource as follows: A roadway, vista point, or area that provides a vista of undisturbed natural areas; a unique or unusual feature that comprises an important or dominant portion of the viewshed (the area within the field of view of the observer); or offers a distant vista that provides relief from less attractive views of nearby features (such as views of mountain backdrops from urban areas) (Policy OS 5.1).
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4.1.2.3.3 City of Ridgecrest Scenic Corridor Plan

The City of Ridgecrest’s Scenic Corridor Plan, referenced in the City’s General Plan, identifies several scenic corridors in the General Plan Planning Area. These corridors have been identified because of their scenic qualities and their existing or potential function as gateways into the City. The corridor boundary is defined by topographic features along the most southerly extent of China Lake Boulevard and by significant landmarks or man–made features up to 1,000 feet from the center of the roadway in areas of level terrain. In areas of urban character, corridor limits have been defined as up to 200 feet from the center of the roadway (see Figure 4.1-2).

The identification of these corridors is utilized by the City of Ridgecrest’s planners to “provide for and enhance the aesthetic visual experience of travelers using the city’s highway and roadway systems” as contained in Circulation Element Goal C-8.

Components of the Proposed Project would be located within the following scenic corridors:

- West Inyokern Road (Inyokern-McGen-Searles No. 2 115 kV subtransmission line is routed along this scenic corridor)
- North and South China Lake Boulevard (Inyokern-McGen-Searles No. 1 and No. 2 115 kV subtransmission lines cross this scenic corridor)
- East and West Ridgecrest Boulevard (Proposed Downs Substation expansion and Inyokern-McGen-Searles No. 2 115 kV subtransmission line are located along this scenic corridor)
- College Heights Boulevard (Inyokern-McGen-Searles No. 1 115 kV subtransmission line crosses this scenic corridor)
- West Drummond Avenue (Inyokern-McGen-Searles No. 2 115 kV subtransmission line crosses this scenic corridor)
- Jacks Ranch Road (Inyokern-McGen-Searles No. 2 115 kV subtransmission line is routed along this scenic corridor)
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4.1.2.3.4 City of Ridgecrest Draft General Plan 2010, Circulation Element

The City of Ridgecrest's Draft General Plan 2010, Circulation Element, designates the scenic corridors contained in the Scenic Corridor Plan and contains the following goals relevant to aesthetics and the Proposed Project:

C-8.3 Landscaping of Scenic Corridors

The City shall require corridors along the State Highways and all major arterials designated as scenic corridors to be landscaped. Developers shall be required to provide installation and establish a means of providing for maintenance of landscaping and utility undergrounding.

C-8.6 Scenic Corridor Standards

The following standards for scenic corridors are applicable to the Proposed Project:

- **Building Exterior Treatment.** Building exteriors should be predominantly natural appearing and use material and colors suited to the desert environment. A harmonious relationship among the various elements of a development and the natural landscape should be achieved.

- **Landscaping and Visual Screening.** Landscaping using desert-compatible plants should be encouraged to enhance important views and screen offensive land uses. Use of earth berms or other natural materials should be encouraged for visual screening, especially adjacent to a road ROW. Block walls and similar structures should be used only when necessitated by site constraints. When block walls are utilized, design shall incorporate elements that would mitigate a “canyon” effect.

- **Utility Lines.** New or relocated utility lines within 1,000 feet of a scenic highway shall be placed underground whenever feasible. Undergrounding would be accomplished in accordance with the utility's rules and tariff schedules on file with the CPUC.

4.1.2.3.5 City of Ridgecrest Draft General Plan 2010, Open Space and Conservation Element

The City of Ridgecrest's Draft General Plan 2010, Open Space and Conservation Element, Aesthetic Resources section, contains six goals designed to protect and enhance the natural setting and scenic resources within the City. These goals address preservation of views, protection and enhancement of scenic resources and significant natural features, preservation of
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significant plant communities and native desert vegetation, and removal of significant trees. Of relevance to the Proposed Project is the following goal:

**OSC-2.6 Control of Lighting and Glare**

The City shall require that all outdoor light fixtures including street lighting, externally illuminated signs, advertising displays, and billboards use low energy, shielded light fixtures which direct light downward. Where public safety would not be compromised, the City shall encourage the use of low pressure sodium lighting for all outdoor light fixtures.

There are no implementation measures for the Open Space and Conservation Element relevant to the aesthetics evaluation.

4.1.3 Significance Criteria

The significance criteria for assessing the impacts to aesthetics come from the CEQA Environmental Checklist. According to the CEQA Checklist, a project causes a potentially significant impact if it would:

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

4.1.4 Methodology

The methods for analyzing potential visual impacts included:

1. Reviewing local planning documents, in particular the City of Ridgecrest’s Draft General Plan 2010.
2. Analyzing project maps, engineering drawings and technical data to ascertain the location and physical characteristics of infrastructure associated with the Proposed Project.

3. Obtaining and analyzing aerial (overhead) and ground-level imagery.

4. Visiting the location of the proposed Downs Substation expansion and 115 kV subtransmission line.

5. Identifying key observation points (KOPs). Overhead and ground level imagery was used to identify preliminary KOPs. The selection of the KOPs was validated during a visit to the location of the proposed Downs Substation expansion. Figure 4.1-3 identifies the locations of the preliminary KOPs; Figures 4.1-4 through 4.1-6 identify the KOPs used in the visual simulation analysis.

6. Identifying potentially affected viewers. The primary affected viewer groups would likely be motorists and attendees/participants in activities at the recreational fields located south of the existing Downs Substation.

   Pedestrians and bicyclists are typically more impacted by visual change due to their slow pace of travel, and thus potentially long exposure. However, the remote location of much of the Inyokern-McGen-Searles 115 kV subtransmission lines, and the location of the Proposed Project outside of the urban Ridgecrest core where pedestrian and bicycle traffic would be expected, result in the determination that pedestrians and bicyclists would not be affected viewers.

   Residents in the general vicinity of the Proposed Project are not a potentially affected viewer group because the proposed Downs Substation expansion and 115 kV subtransmission line would largely be screened from view, and because the majority of the Inyokern-McGen-Searles 115 kV subtransmission corridors are in remote locations away from residential areas.

7. Creating a computer-generated photo realistic visual simulation. This simulation was used to identify how, and to what extent the Proposed Project might alter the existing visual conditions. This visual simulation (Figures 4.1-4 through 4.1-6) allows for a side-by-side, before-and-after comparison to accurately assess the potential aesthetic impact of the Proposed Project.

8. Assessing magnitude of the change to the existing visual baseline posed by the Proposed Project.
EXISTING CONDITIONS

PROPOSED PROJECT SIMULATION

- View looking northwest from northbound Downs St. Simulated condition shows proposed Downs Substation expansion and new 115 kV subtransmission poles.
EXISTING CONDITIONS

PROPOSED PROJECT SIMULATION
-View looking north from baseball dugout. Simulated condition shows proposed Downs Substation expansion and new 115 kV subtransmission poles.
EXISTING CONDITIONS

PROPOSED PROJECT SIMULATION

- View looking southwest west on westbound Ridgecrest Blvd. Simulated condition shows proposed Downs Substation expansion and new 115 kV subtransmission poles.
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The visual impact analysis was designed to respond to the CEQA Guidelines, Appendix G for visual impact analysis, which emphasize the protection of established scenic resources and existing visual characteristics of a project area. Consideration was given to the following factors in determining the extent and implications of the visual changes:

• Specific changes in the landscape’s visual composition, character, and any specially valued qualities.

• The visual context (what surrounds the area).

• The extent to which the affected environment contains places or features that have been designated in government plans for visual protection or special consideration.

• Particular consideration was given to effects on landscapes visible in the foreground (0 to 0.25 mile distance) from public viewpoints.

4.1.5 Impact Assessment

Construction and operation of the Proposed Project would result in no or less than significant impacts for the following CEQA criteria:

*Would the Proposed Project have a substantial adverse effect on a scenic vista?*

**Less than Significant Impact.** Neither CEQA nor the CEQA Guidelines provide a definition of what constitutes a “scenic vista” or a “scenic resource” or a reference as to from what vantage point(s) the scenic vista and/or resource, if any, should be observed. Similarly, these terms are not defined by Kern County in its General Plan. As a result, this PEA evaluates all scenic qualities of an area as visual characteristics. The information contained in the City of Ridgecrest and San Bernardino County documents reviewed as part of the current environmental review process (listed above) have been used in this analysis.

The City of Ridgecrest has identified scenic corridors and identified policies in part to “protect important views.” The proposed Downs Substation expansion, the new 115 kV subtransmission line, and the proposed installation of telecommunication infrastructure on the existing Inyokern-McGen-Searles 115 kV subtransmission corridors would occur along and across portions of City-identified scenic corridors (see Figure 4.1-2). The proposed Downs Substation expansion and new 115 kV subtransmission line work adjacent to the existing Downs Substation location would represent a feature of increased size and visual complexity to what currently exists at the location.
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However, the low-profile design and exterior treatment of the proposed Downs Substation expansion facility per City of Ridgecrest General Plan Goals C-8.6, *Scenic Corridor Standards* would result in the proposed Downs Substation not significantly impacting the scenic vistas visible from the vicinity of Downs Substation. Because the fiber optic telecommunication cable that is to be installed on the existing subtransmission pole line is of a small diameter, the fiber optic telecommunication cable component of the Proposed Project would not impact the viewing of any scenic vista.

The telecommunications component and the replacement of six subtransmission poles are the only activities that would occur in San Bernardino County. While there are no officially identified scenic vistas that incorporate the existing 115 kV subtransmission line routes, Highway 178 offers travelers many distant vistas and vistas of undisturbed natural areas that could possibly qualify as scenic resources. The six 115 kV subtransmission line wood poles would be replaced with wood poles of similar height and diameter. Additionally, the new small-diameter fiber optic telecommunication cable would be strung on the existing and replaced 115 kV subtransmission line poles in the existing ROWs. Because of the small diameter of the fiber optic telecommunication cable, and because the six replacement poles would be of similar height and diameter to existing poles, there would be a less than significant impact on scenic resources in San Bernardino County.

The Proposed Project represents additions to existing infrastructure. These additions would not have a substantial adverse effect on a scenic vista; therefore, less than significant impacts would occur under this criterion as a result of the Proposed Project.

*Would the Proposed Project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?*

**No Impact.** No portion of the Proposed Project is located within or adjacent to either a designated or designation-eligible state scenic highway. The nearest designation-eligible state scenic highway is Highway 14, which is located more than four miles west of the nearest component of the Proposed Project (Inyokern Substation). Therefore, no impacts would occur under this criterion as a result of the Proposed Project.

*Would the Proposed Project substantially degrade the existing visual character or quality of the site and its surroundings?*

**Less than Significant Impact.** Construction and operation of the Proposed Project would not substantially degrade the existing visual character or quality of the location or its surroundings.
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Proposed Downs Substation Expansion and New 115 kV Subtransmission Line

The visual character and quality of the location of the proposed Downs Substation expansion and the new 115 kV subtransmission line is defined by the current land use. The existing Downs Substation is bordered by vacant land typified by sparse desert vegetation and weeds, and the lots in the immediate vicinity are zoned for commercial use, industrial use, and recreational use.

The majority of viewers of the proposed Downs Substation expansion and new 115 kV subtransmission line would be in vehicles or attendees/participants in sporting events at the adjacent baseball fields. Motorists would have only a short window of opportunity during which to view the proposed expanded Downs Substation and 115 kV subtransmission line as they approach and transit the intersection. As seen by motorists traveling along either of the adjacent roads, the proposed expanded Downs Substation and new 115 kV subtransmission line would be visible but would not dominate the viewshed.

Viewers located at the baseball fields (particularly spectators) would have an opportunity for longer-duration views of the proposed Downs Substation expansion and new 115 kV subtransmission line, and thus could be more sensitive to changes in the view. However, these viewers would likely be focused on recreational activities on the baseball field. The proposed Downs Substation would represent a feature of increased size and visual complexity; however, its low-profile design, the exterior treatment of the proposed Downs Substation facility, and landscaping to visually screen the location per City of Ridgecrest General Plan Goals C-8.3, Landscaping of Scenic Corridors and C-8.6, Scenic Corridor Standards would reduce the incremental change associated with the expanded substation.

Similarly, the installation of new, taller poles and additional lines between the poles would also represent a minor incremental change to the existing fore- and mid-ground view that currently contains utility poles, floodlight poles, streetlights, and communication towers. The new poles and lines associated with the proposed 115 kV subtransmission line would be visible, but would not dominate the view for either motorists or viewers from the baseball fields (see Figures 4.1-4 through 4.1-6).

Proposed Fiber Optic Telecommunication Cable Installation

The proposed installation of telecommunication infrastructure, including the replacement of six 115 kV subtransmission line poles, would not substantially degrade the existing visual character or quality currently found along the Inyokern-McGen-Searles No. 1 and No. 2 115 kV subtransmission line or their surroundings. The fiber optic telecommunication cable would be strung on existing subtransmission poles, and the new subtransmission poles would be
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replacements for existing infrastructure. The existing visual character currently includes electrical subtransmission infrastructure, and therefore the addition of small diameter fiber optic telecommunication cable would not represent a significant impact.

Conclusion

In summary, the Proposed Project would represent an expansion of an existing use, and not a new use in the area. As a result, the Proposed Project would not represent a substantial degradation of the existing visual character or quality of the location, nor would it represent a substantial impact to either of the two primary viewing groups. Collectively, less than significant impacts would occur under this criterion as a result of the Proposed Project.

Would the Proposed Project create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?

Less than Significant Impact. The construction and operation of the Proposed Project would not create new sources of substantial light or glare that would adversely affect day or nighttime views in the area.

Nighttime Views

Construction activities would be scheduled to occur during daylight hours. Should nighttime construction work that requires a permit per City Ordinance 14-2.2, Encroachments Require Permit, be conducted, the active areas would be appropriately illuminated per City Ordinance 14-2.8(d) to ensure the safety of workers and the public. The limited duration and spatial scope of these activities would result in a less than significant impact to nighttime views in the area during construction.

Operation of the Proposed Project would not create a new source of substantial light or glare that would adversely affect nighttime views in the area. Lighting in the proposed expanded Downs Substation would be located in areas where emergency or normal maintenance work may be conducted. These lights would be angled downward and shielded to direct the light and minimize glare outside the facility, per City of Ridgecrest General Plan Goal OSC-2.6, Control of Lighting and Glare. These lights would normally be in the “off” position, and would be illuminated only when necessary. A beacon light on the automatic entry gate would be visible outside the facility, but only when the gate is activated. The 115 kV subtransmission line and fiber optic telecommunication cable would have no source of illumination.
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When utilized, work lights and the beacon light at the proposed Downs Substation would represent the only new source of light from the Proposed Project. These work lights and beacon light would supplement existing lights at Downs Substation that are operated in a similar manner. Given the infrequent utilization of these proposed lights, the shielding and directing of the lights, the landscaping around the proposed Downs Substation expansion, and the presence of other sources of nighttime illumination in the vicinity (e.g., the baseball fields adjacent to the location to the south have tower lights to allow nighttime play, and the hardware store to the northeast has tower lights in its parking lot), the proposed Downs Substation expansion would have a less than significant effect on nighttime views in the area.

Daytime Views

Conventional construction and utility equipment and procedures would be utilized; these activities would not create substantial glare that would adversely affect daytime views.

Landscaping around the proposed Downs Substation expansion would effectively minimize daytime glare. The new 115 kV subtransmission line poles to be installed in the vicinity of the proposed Downs Substation expansion may reflect light; this glare, however, would not be significant given the existing infrastructure in the vicinity.

Wooden poles replaced as part of the proposed fiber optic telecommunication cable installation would be replaced with new wooden poles which would not generate glare. The new fiber optic telecommunication cable that would be installed in the existing 115 kV subtransmission line corridors has a small diameter, and would not represent a new source of significant glare. Therefore, operation of the Proposed Project would not affect daytime views in the area.

Conclusion

The construction and operation of the Proposed Project would not create new sources of substantial light or glare that would adversely affect day or nighttime views in the area. Therefore, less than significant impacts would occur under this criterion as a result of the Proposed Project.

4.1.6 Applicant Proposed Measures

Because the Proposed Project would not result in significant impacts to aesthetics, no Applicant Proposed Measures are offered.
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REFERENCES
