

EVALUATION OF ENVIRONMENTAL IMPACTS

1. AESTHETICS

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than- Significant Impact	No Impact
a. Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Existing Conditions

The project route is one of three parallel sets of power line towers that exist within a visually prominent electric power line corridor. This power line corridor passes through a variety of urban, park, and open space land uses. Figure B.1-1 illustrates and describes the context of the San Mateo–Martin #4 60 kV power line route. Table B.1-1 summarizes the immediate visual context of the four substations where modifications are proposed. For purposes of this analysis, the visual setting considers scenic attractiveness, surrounding land use, and viewer sensitivity.

Scenic attractiveness is the primary indicator of the intrinsic scenic beauty of a landscape and the positive responses it evokes. Scenic attractiveness is described in terms of the composition of cultural modifications, landform, vegetation, rocks, cultural features, and water formations found in the characteristic landscape. Scenic attractiveness comprises the following classifications:

- **Distinctive:** where the landscape composition combines to provide unusual, unique, or outstanding scenic quality. These landscapes have strong positive attributes of variety, unity, vividness, mystery, intactness, order, harmony, uniqueness, pattern, and balance.
- **Typical:** where the landscape composition combines to provide ordinary or common scenic quality. These landscapes have generally positive, yet common, attributes of variety, unity, vividness, mystery, intactness, order, harmony, uniqueness, pattern, and balance. Normally, they would form the basic matrix of an ecological unit.
- **Indistinctive:** where the landscape composition has low scenic quality. Often water- and rock-forms of any consequence are missing. These landscapes have weak or missing attributes of variety, unity, vividness, mystery, intactness, order, harmony, uniqueness, pattern, and balance.



TOWER(S) /SUBSTATION	VISUAL SETTING
<p>0/1 to 0/4</p> <ul style="list-style-type: none"> ■ Scenic attractiveness: Distinctive (Poplar Creek Golf Course) ■ Viewer sensitivity: High 	 <p>Photo Location 1: Looking North from East Poplar Avenue</p>
<p>San Mateo Substation</p> <ul style="list-style-type: none"> ■ Scenic attractiveness: Typical to Distinctive ■ Viewer sensitivity: High 	 <p>Photo Location 2: Looking South from East Poplar Avenue</p>

FIGURE B.1-1A
Visual Setting of Power Line Corridor and Substations
(Photos 1 and 2)

Not to Scale



TOWER(S) /SUBSTATION	VISUAL SETTING
<p>0/4 to 1/8</p> <ul style="list-style-type: none"> ■ Scenic attractiveness: Typical to Distinctive ■ Viewer sensitivity: High 	 <p>Photo Location 3: Looking southwest from Airport Boulevard</p>
<p>1/8 to 1/11</p> <ul style="list-style-type: none"> ■ Scenic attractiveness: Indistinctive ■ Viewer sensitivity: Low 	 <p>Photo Location 4: Looking northwest from Airport Boulevard</p>

FIGURE B.1-1B
Visual Setting of Power Line Corridor and Substations
(Photos 3 and 4)

Not to Scale



TOWER(S) /SUBSTATION	VISUAL SETTING
<p>1/11 to 2/18</p> <ul style="list-style-type: none"> ■ Scenic attractiveness: Distinctive ■ Viewer sensitivity: High 	 <p>Photo Location 5: Looking northwest from Airport Boulevard</p>
<p>2/18 to 2/19</p> <ul style="list-style-type: none"> ■ Scenic attractiveness: Indistinctive ■ Viewer sensitivity: Moderate (US 101 Crossing) 	 <p>Photo Location 6: Looking north from U.S. Highway 101 (US 101)</p>

FIGURE B.1-1C
Visual Setting of Power Line Corridor and Substations
(Photos 5 and 6)

Source: EIP Associates, April 2003

Not to Scale





TOWER(S) /SUBSTATION	VISUAL SETTING
<p>Burlingame Substation</p> <ul style="list-style-type: none"> ■ Scenic attractiveness: Indistinctive ■ Viewer sensitivity: Low 	 <p>Photo Location 7: Looking east from California Drive</p>
<p>2/19 to 4/32</p> <ul style="list-style-type: none"> ■ Scenic attractiveness: Indistinctive ■ Viewer sensitivity: Low 	 <p>Photo Location 8: Looking northwest from Adrien Road</p>

FIGURE B.1-1D
Visual Setting of Power Line Corridor and Substations
(Photos 7 and 8)

Not to Scale



TOWER(S) /SUBSTATION	VISUAL SETTING
<p>4/32 to 4/33</p> <ul style="list-style-type: none"> ■ Scenic attractiveness: Indistinctive ■ Viewer sensitivity: High 	 <p>Photo Location 9: : Looking northwest from Aviator Avenue</p>
<p>4/33 to 6/54</p> <ul style="list-style-type: none"> ■ Scenic attractiveness: Indistinctive ■ Viewer sensitivity: Low to High (park) 	 <p>Photo Location 10: : Looking south from US 101 and 7th Avenue</p>

FIGURE B.1-1E
Visual Setting of Power Line Corridor and Substations
(Photos 9 and 10)

Not to Scale



TOWER(S) /SUBSTATION	VISUAL SETTING
<p>6/54 to 7/55</p> <ul style="list-style-type: none"> ■ Scenic attractiveness: Indistinctive ■ Viewer sensitivity: Moderate 	 <p>Photo Location 11: Looking south from Grand Substation</p>
<p>Grand Substation</p> <ul style="list-style-type: none"> ■ Scenic attractiveness: Indistinctive ■ Viewer sensitivity: Low (parking areas) to Moderate (hotels) 	 <p>Photo Location 12: Looking east from East Grand Avenue</p>

FIGURE B.1-1F
Visual Setting of Power Line Corridor and Substations
(Photos 11 and 12)

Not to Scale



TOWER(S) /SUBSTATION	VISUAL SETTING
<p>7/55 to 8/66</p> <p>■ Scenic attractiveness: <input type="checkbox"/></p> <p>□ Indistinctive</p> <p>■ Viewer sensitivity: <input type="checkbox"/></p> <p>□ Low (parking areas) <input type="checkbox"/></p> <p>□ to Moderate (hotels)</p>	 <p>Photo Location 13: Looking north from East Grand Avenue</p>
<p>8/66 to 8/67</p> <p>■ Scenic attractiveness: <input type="checkbox"/></p> <p>□ Indistinctive</p> <p>■ Viewer sensitivity: <input type="checkbox"/></p> <p>□ Moderate (US 101 <input type="checkbox"/> <input type="checkbox"/></p> <p>□ crossing)</p>	 <p>Photo Location 14: Looking southwest from Bayshore Boulevard</p>

FIGURE B.1-1G
Visual Setting of Power Line Corridor and Substations
(Photos 13 and 14)

Source: EIP Associates, April 2003

PG&E San Mateo-Martin #4 Conversion Project

Not to Scale





TOWER(S) /SUBSTATION	VISUAL SETTING
<p>9/69 to 10/78</p> <ul style="list-style-type: none"> ■ Scenic attractiveness: Typical ■ Viewer sensitivity: High (park/open space) 	 <p>Photo Location 15: Looking southwest from North Hill Drive</p>
<p>10/78 to 11/85</p> <ul style="list-style-type: none"> ■ Scenic attractiveness: Typical ■ Viewer sensitivity: High (park/open space, scenic road) 	 <p>Photo Location 16: Looking north from North Hill Drive</p>

FIGURE B.1-1H
Visual Setting of Power Line Corridor and Substations
(Photos 15 and 16)

Not to Scale



TOWER(S) /SUBSTATION	VISUAL SETTING
<p>11/85 to 11/86</p> <ul style="list-style-type: none"> ■ Scenic attractiveness: Typical ■ Viewer sensitivity: High (residences) 	 <p>Photo Location 17: Looking south from Linda Vista Drive</p>
<p>Martin Substation</p> <ul style="list-style-type: none"> ■ Scenic attractiveness: Typical ■ Viewer sensitivity: High (residences) 	 <p>Photo Location 18: Looking north from Linda Vista Drive</p>

FIGURE B.1-11
Visual Setting of Power Line Corridor and Substations
(Photos 17 and 18)

Not to Scale

**Table B.1-1
Visual Relationships of Substations to Surrounding Area**

Substation	Visual Characteristics of Adjacent Land Uses
<p>San Mateo: area identified for the improvements occupies approximately 7,500 square feet (0.2 acre) of the 38.6-acre substation property and is located on the north-central side of the substation.</p>	<p>North</p> <ul style="list-style-type: none"> • <i>Adjacent land use:</i> Poplar Creek Golf Course • <i>Viewer sensitivity:</i> Moderate to high. Golfers' orientation and attention is generally directed to area of play and not to the substation. • <i>View into substation area to be developed:</i> None to little. Substation in middleground of the majority of the golf course. Mature trees, shrubs, and screening fence effectively block views from golf course into substation. • <i>View to related project improvements:</i> Two new, 55- to 55-foot-high tubular steel poles may be seen, but will be backdropped by the existing substation facilities. <p>East</p> <ul style="list-style-type: none"> • <i>Adjacent land use:</i> Bayfront Nature Area • <i>Viewer sensitivity:</i> High • <i>View into substation area to be developed:</i> None. Views from off-site into the area of the substation proposed for the new 115 kV breaker are screened by the existing substation facilities. <p>South</p> <ul style="list-style-type: none"> • <i>Adjacent land use:</i> Residential • <i>Viewer sensitivity:</i> High • <i>View into substation area to be developed:</i> None to little. Substation in middleground with foreground dominated by wetlands. Residential views to substation area for new 115 kV breaker partially blocked by existing the substation facilities. <p>West</p> <ul style="list-style-type: none"> • <i>Adjacent land use:</i> Residential/Commercial • <i>Viewer sensitivity:</i> Moderate to high • <i>View into substation area to be developed:</i> None. Views from off-site into the area of the substation for the new 115 kV breaker are effectively screened by the existing vegetation and substation facilities.
<p>Burlingame:</p>	<p>Northwest</p> <ul style="list-style-type: none"> • <i>Adjacent land use:</i> Industrial/Commercial • <i>Viewer sensitivity:</i> Low • <i>View to substation area to be developed:</i> None. Adjacent commercial use is oriented away from the substation. <p>Northeast</p> <ul style="list-style-type: none"> • <i>Adjacent land use:</i> Industrial/Commercial • <i>Viewer sensitivity:</i> Low • <i>View into substation area to be developed:</i> Adjacent commercial uses are oriented toward the substation. <p>Southeast</p> <ul style="list-style-type: none"> • <i>Adjacent land use:</i> Industrial/Commercial • <i>Viewer sensitivity:</i> Low • <i>View into substation area to be developed:</i> The adjacent building extends the length of the substation, is oriented away from the substation, and has no windows on the side of the substation.

**Table B.1-1 (Continued)
Visual Relationships of Substations to Surrounding Area**

Substation	Visual Characteristics of Adjacent Land Uses
<p>Millbrae: area identified for the improvements occupies approximately 46,000 square feet (1 acre) of the 12-acre substation property and is generally located on the south side of the substation.</p>	<p>Southwest</p> <ul style="list-style-type: none"> • <i>Adjacent land use:</i> Industrial/Commercial • <i>Viewer sensitivity:</i> Low • <i>View into substation area to be developed:</i> Foreground views across Rollins Road to screening fence and the substation facilities.
	<p>Northwest</p> <ul style="list-style-type: none"> • <i>Adjacent land use:</i> Open Space • <i>Viewer sensitivity:</i> No public access to the West of Bayshore parcel • <i>View into substation area to be developed:</i> Not applicable because there is no public access to the parcel.
	<p>Northeast</p> <ul style="list-style-type: none"> • <i>Adjacent land use:</i> Open Space • <i>Viewer sensitivity:</i> No public access to the West of Bayshore parcel • <i>View into substation area to be developed:</i> Not applicable because there is no public access to the parcel.
	<p>Southeast</p> <ul style="list-style-type: none"> • <i>Adjacent land use:</i> Residential • <i>Viewer sensitivity:</i> High • <i>View into substation area to be developed:</i> Immediately adjacent residences are sited below the level of substation (inferior viewer position), with foreground views of the immediate substation area effectively blocked by topography, property fenceline, and mature trees along the southern boundary of the substation. • <i>View to related project improvements:</i> One new, 60- to 70-foot-high tubular steel pole will be installed, but will be backdropped by existing facilities, and will not be readily evident to nearby residences.
	<p>Southwest</p> <ul style="list-style-type: none"> • <i>Adjacent land use:</i> Bay Area Rapid Transit (below grade) and Caltrain • <i>Viewer sensitivity:</i> Moderate • <i>View to substation area to be developed:</i> View east directly into the substation from Caltrain right-of-way • <i>View to related project improvements:</i> One new, 60- to 70-foot-high tubular steel pole will be installed, but will be backdropped by existing facilities, and will not be readily evident to nearby residences.
<p>Martin: area identified for the improvements occupies approximately 7,500 square feet (0.2 acre) of the 28.3-acre substation property and is located on the eastern side of the substation.</p>	<p>North</p> <ul style="list-style-type: none"> • <i>Adjacent land use:</i> Commercial • <i>Viewer sensitivity:</i> Low to moderate • <i>View to substation area to be developed:</i> Little to none. Views from offsite to area of substation proposed for new 115 kV breaker are screened by the existing substation facilities.
	<p>East</p> <ul style="list-style-type: none"> • <i>Adjacent land use:</i> Commercial on west side of Bayshore Boulevard; Vacant/Commercial on east side of Bayshore Boulevard • <i>Viewer sensitivity:</i> Low • <i>View into substation area to be developed:</i> <ul style="list-style-type: none"> – Commercial: None. Orientation is toward Bayshore Boulevard. – Bayshore Boulevard: Views west into the substation area screened by roadside trees and shrubs.

**Table B.1-1 (Continued)
Visual Relationships of Substations to Surrounding Area**

Substation	Visual Characteristics of Adjacent Land Uses
	<p>South</p> <ul style="list-style-type: none"> • <i>Adjacent land use:</i> Residential/Open Space • <i>Viewer sensitivity:</i> High • <i>View into substation area to be developed:</i> Views west into area of the substation involving new 115 kV breakers are in the background view and screened. <p>West</p> <ul style="list-style-type: none"> • <i>Adjacent land use:</i> Residential/Park • <i>Viewer sensitivity:</i> High • <i>View into substation area to be developed:</i> Views east are screened by vegetation and the existing substation facilities.

Source: PG&E, 2002.

Viewer sensitivity, or exposure potential, is a measure of the number of people who would see the project from a particular area in the landscape. It is assumed, all other factors being equal, that visual impacts affecting a larger number of people are correspondingly more important (higher) than visual impacts affecting fewer people. The following terms characterize exposure potential:

- **Population Analysis:** addresses the number of people who have the opportunity to observe the project. In urban and rural areas, almost all population movement is by automobile. Road designations (e.g., highway, major route, or local roadway) provide an index to the number of potential observers. It is difficult to assess the exact number of residences (stationary viewers) that may be exposed to the project at any particular place. Estimates are made by field observation.
- **Attention Analysis:** provides an index to the amount of attention an individual may devote to scanning portions of the landscape while in a vehicle. A viewer may be distracted from observing the project by competing elements, such as structures (e.g., stores, houses), planned attention-getters (e.g., billboards, traffic signs), transportation elements (e.g., moving traffic, parked cars, intersections), and human activities (e.g., pedestrians, bicyclists).
- **Observer Position:** refers to the location of an observer looking upon the project. When an observer is above the viewed object (viewer superior), views allow better observation and minimize visual blockage. When an observer is below the surrounding landscape (viewer inferior), views of project facilities can be blocked or partially screened by plants, landforms, and structures. When a viewer is at the same level as the viewed object, some characteristics of both the inferior and superior occur.

Thus, a large number of viewers, with few distractions, and clear views would translate into high viewer sensitivity. On the other hand, few viewers, high visual “clutter,” and occasional glimpses combine to define low viewer sensitivity.

Public Plans and Policies. The general plans of each city in the project corridor were reviewed to identify visual policies that might apply to the San Mateo–Martin #4 60 kV Conversion Project. The only jurisdiction in the project area that has visual policies that apply to the proposed project is San Mateo County; its policies are presented below.

The *San Mateo County General Plan* identifies the Guadalupe Canyon Parkway as a County Designated Scenic Route. A highway or county road is designated as “scenic” depending upon 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 traveler’s enjoyment of the view.

The *San Mateo County General Plan* contains the following visual quality goals, objectives, and policies that may be relevant to the project.

Goals and Objectives

- 4.1.b Protection of Visual Quality: Encourage positive visual quality for all development and minimize adverse visual impacts.
- 4.3 Protection of Vegetation: Minimize the removal of visually significant trees and vegetation to accommodate structural development.

General Policies

- 4.20 Minimize the adverse visual quality of utility structures, including roads, roadways and building signs, overhead wires, utility wires, utility poles, T.V. antennae, windmills and satellite dishes.

Rural Areas (San Bruno Mountain State and County Park)

- 4.28 Trees and Vegetation:
 - 4.28a Preserve trees and natural vegetation except where removal is required for approved development or safety.
 - 4.28b Replace vegetation and trees removed during construction wherever possible. Use native plant materials or vegetation compatible with the surrounding vegetation, climate, soil, and ecological characteristics of the region and acceptable to the California Department of Forestry.
 - 4.28c Provide special protection to large and native trees.
- 4.30 Public Utilities: Encourage the placement of new and existing public utility lines underground.

Urban Areas

- 4.35 Urban Area Design Concept:
 - 4.35a Maintain and, where possible, improve upon the appearance and visual character of development in urban areas.
 - 4.35b Ensure that new development in urban areas is designed and constructed to contribute to the orderly and harmonious development of the locality.

Site Planning for Rural Scenic Corridors

- 4.65 Large Scale Power Transmission Lines:
Encourage PG&E to mitigate the adverse visual impact created by large-scale power transmission lines.

Significance Criteria

The significance criteria for this analysis is based on Appendix G of the CEQA Guidelines. The project would have a significant impact on visual resource 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 which would adversely affect day or nighttime views in the area.

Methodology

In order to determine whether the proposed reconductoring project would result in a substantial change to the visual setting, the assessment employed a line-of-sight viewshed analysis to consider the net visual presence of the project facilities. The analysis of the substation areas was conducted from surrounding lands immediately adjacent to the facilities. The analysis of the power line route was conducted from the following publicly accessible locations:

- Major local routes of travel
 - US 101 and Interstate 380
 - City of San Mateo: Airport Boulevard
 - Burlingame: Airport Boulevard, Broadway Avenue, Rollins Road
 - Millbrae: Rollins Road, Millbrae Avenue
 - San Bruno: San Bruno Avenue East
 - South San Francisco: South Airport, Gateway, Sister Cities Boulevards
 - Brisbane: Valley Drive, Guadalupe Canyon Parkway
 - Daly City: Bayshore Boulevard, Geneva Avenue
- The local street system crossing and parallel to the power line corridor that includes the San Mateo-Martin #4 line
- Public parks and open space areas
 - Shoreline Parks—Bayfront Nature Area (City of San Mateo)
 - Poplar Creek Golf Course (City of San Mateo)

- Coyote Point Recreational Area (San Mateo County)
- Bayside Park (Burlingame)
- Burlingame Recreation Lagoon and Shoreline Trail (Burlingame)
- Burlingame Lagoon and Channel (Burlingame)
- Bayside Manor Park (Millbrae)
- Marina Vista Park (Millbrae)
- Lions Field Park (San Bruno)
- Belle Aire Elementary School playfields (San Bruno)
- 7th Avenue Park (San Bruno)
- 7th Avenue/Walnut Park (San Bruno)
- San Bruno Mountain State and County Park (San Mateo County)
- Bayshore Park (Daly City)
- West of Bayshore Parcel (City and County of San Francisco)

The visual impact assessment was based on an evaluation of changes to the existing visual character that would result from construction and operation of the proposed project. The following parameters were used to determine the extent and implications of the visual changes:

- Scenic attractiveness of the landscape (defined earlier under “Existing Conditions”),
- Exposure potential of project facilities to residents and travelers (defined earlier under “Existing Conditions”), and
- Visual impression (before mitigation).

Visual impression is a measure of the strength of the visual impression the project would produce on a viewer. The following factors characterize visual impression:

- Physical changes to the landscape, such as grading or vegetation removal.
- Incompatible relationships between the project and the existing landscape, including disparity in relative size and scale of a structure and landscape elements (e.g., buildings, vegetation, topography). This factor also includes determining whether the project contrasts with special landscapes or cultural features, such as lakes, rivers, or trails.
- Incompatible relationships between the project and existing plans, including conflicts with adopted city plans or ordinances. This factor also addresses conflicts with scenic highway or roadway designations.
- Viewer distance, such as the varying viewer distance from project facilities, would influence what impressions may be perceived. For the purpose of this analysis, the distance zones are foreground (0 to 100 feet), middleground (100 feet to 0.25 mile), and background (0.25 mile to infinity).
- New versus incremental impact types are differentiated to determine the level of contrast between a particular impact type and the existing landscape. To do so, it is necessary to establish whether the

project is a new introduction to that area of the landscape or an existing landscape feature already established by an adjacent facility. For example, a new transmission tower within an existing power line right-of-way would be an incremental impact type. Incremental impact types are less disruptive to an existing landscape scene because the same type of impact has already visually disturbed the given view. A new impact type is a new type of phenomenon in the landscape and, therefore, its effect in modifying a given landscape scene is stronger.

An adverse visual impact occurs within public view when: (1) an action perceptibly changes existing features of the physical environment so that they no longer appear to be characteristic of the subject locality or region; (2) an action introduces new features to the physical environment that are perceptibly uncharacteristic of the region and/or locale; or (3) aesthetic features of the landscape become less visible (e.g., partially or totally blocked from view) or are removed. Changes that seem uncharacteristic are those that appear out of place, discordant, or distracting. The degree of the visual impact depends upon how noticeable the adverse change may be. The noticeability of a visual impact is a function of project features, context, and viewing conditions (angle of view, distance, and primary viewing directions).

Explanation of Aesthetics Checklist

a. Scenic Vista

Less-than-Significant Impact

Implementation of the project would result in a less-than-significant effect on county-designated scenic vistas, San Bruno Mountain State and County Park, and the Guadalupe Canyon Parkway. The San Mateo-Martin #4 power line is readily visible from US 101 and from throughout the project area. Scenic vistas exist from the San Bruno Mountain State and County Park trail system. These scenic vistas are dominated by long-range views of the San Francisco Bay and surrounding urban development. The minimal visual changes to circuits and insulators on the San Mateo-Martin #4 line within view of these scenic vistas, given the number and scale of facilities within the existing power line corridor, would not affect the overall visual impression of existing vistas or damage scenic resources. Construction activities would be conducted during weekdays from 7 am to 7 pm, except when crossing US 101, when construction would occur weekend mornings from 5 am to 10 am. Construction would focus on the 16 pull or tension sites and four substations and would proceed from tower to tower.

Modifications to towers would take 60 to 90 days to install, pull, and tension new conductors the entire length of the line. Modifications at the four substations are expected to take 5 to 8 months to complete. Construction impacts would be temporary and noticeable to motorists along US 101 and surrounding land users. Because construction-period visual impacts are temporary, substation modifications take place within the substation fence line, and few of the tower sites exhibit distinctive scenic attractiveness, implementation of the project would have less-than-significant effects on scenic vistas.

b. Scenic Resources

Less-than-Significant Impact

According to the general plans for jurisdictions in the project corridor, no state scenic highways or other state scenic resources exist along the project route; however, the Guadalupe Canyon Parkway is designated a scenic highway in San Mateo County. The Martin Substation is visible in the background

from the Guadalupe Canyon Parkway. Modifications to the Martin Substation would include installation of new breakers to accommodate the upgraded power lines, rearrangement of line terminations on the power poles, and modification of control panels within the substation itself. All modifications would occur within the fenced property of the Martin Substation and are expected to be completed in 5 to 6 months. Potential impacts to visual resources from the power line reconductoring would include removal of vegetation or pruning of trees as necessary to meet fire management guidelines. All construction impacts would be temporary. Daytime activities, including vegetation removal and tree pruning, would be minor in appearance; therefore, impacts from these activities would be less than significant.

c. Degrade Visual Character

Less-than-Significant Impact

Construction. Most visual impacts associated with construction are unavoidable; however, standard construction methods (e.g., dust control measures to reduce fugitive dust) would be followed to minimize the visual impacts. Potential impacts during construction include temporary construction signs, temporary guard structures (see Figures B-3 and B-4), the presence of heavy equipment and assorted construction vehicles, and the presence of helicopters. As discussed above, construction would proceed from tower to tower. It is anticipated that modifications at each tower would be completed by a crew in two days, and the installation, pull, and tension of new conductors along the entire length of the line would take 60 to 90 days. Modifications at the four substations are expected to take 5 to 8 months to complete. Construction activities, therefore, would be temporary and short term and would result in a less-than-significant impact.

Transmission Line. No noticeable long-term changes in the appearance of the existing power line corridor and surrounding lands would occur once the line has been reconductored and the substations modified. Changes to circuits and crossarm modifications to a limited number of towers would be minor in scale when observed relative to the number and scale of the facilities within the existing power line corridor. The existing visual character, scenic attractiveness, and visual impression of the power line corridor and surrounding lands would not be altered or degraded. There would not be a significant impact related to the power line itself.

Substations. Modifications at the substations would be within existing property lines, would primarily involve changes in equipment from one to another similar type, and would be marginally noticeable. The visual impression of the San Mateo and Martin Substations would not change from existing conditions. Modifications at these substations would either fill in existing facilities or expand facilities into immediately adjacent undeveloped areas with facilities of a similar character. The two new tubular steel poles planned for the San Mateo Substation would be in scale with the height of the existing towers. This would not represent a significant change in the visual context of the substations and, thus, would not be noticeable to most viewers.

Changes in appearance of the Burlingame Substation would include replacing the four existing 60/4 kV transformers with one 115/4 kV transformer, and two 21/4 kV three-phase transformers, replacing the existing control building with a larger, 20-by-20-foot control building, removal and replacement of the Jack bus and steel structures, and some grading to accommodate the installations. The general area

surrounding the substation consists of a variety of commercial and industrial uses with low viewer sensitivity. The substation currently contains transformers, a control building, telecommunications building, breakers, switches, breaker disconnects, and stored cars. The proposed redevelopment of a portion of the property, removal of stored cars, and use of tubular steel poles would not result in a substantial change in visual quality of the site. The Burlingame Substation modifications would have a less-than-significant visual effect in relation to current conditions.

Improvements planned within the Millbrae Substation property include the installation of two tubular steel poles within the substation in the West of Bayshore parcel, new lines, extension of an existing bus structure by two bays, and construction of an interior perimeter road around the substation. Two wood poles located outside the substation fence line would be removed. All changes would be within the existing substation fenceline and would not be readily visible to adjacent uses. Two residences bordering the site are below the grade of the substation. The grade difference combined with the existing mature trees results in the substation being effectively screened from the residences' foreground view. As a result, the project would not substantially degrade the existing visual character or quality of the area.

d. Light and Glare

Less-than-Significant with Mitigation Incorporated

Construction Lighting. Nighttime construction may occur for the transmission line work at US 101 crossings and for substation work. For the transmission line highway crossings, mobile light towers would be used for lighting during nighttime activities. Any highway crossing—whether during the day or at night—is studied and reviewed before construction at meetings with Caltrans. Caltrans would provide PG&E with the parameters and requirements involved in crossings on a case-by-case basis, which may require support from the CHP and/or contracting a professional traffic management company. Nighttime work within the substations is proposed by PG&E to occur on weekends during the summer. Nighttime construction activities would be temporary but would have a more noticeable effect than daytime activities due to lighting requirements. Implementation of MM AES-1 would reduce light and glare impacts from nighttime work to less-than-significant levels. Nighttime lighting specifications shall be based on consultations with Caltrans.

MM AES-1 All night lighting during construction shall be directed, to the maximum extent possible, vertically towards the work area and shall be shielded to prevent receptors along US 101 and residents in the vicinity of substations from experiencing glare from the lights. Nighttime lighting for work to be performed at the Martin Substation shall be shielded and directed away from Guadalupe Canyon Parkway.

Substations. Once the upgrades are complete, exterior safety lighting would be mounted on new equipment at the substations as necessary for safe movement around the equipment at night. The new lighting may result in glare impact to receptors outside the substations. Residences are located within 90 feet of the Millbrae Substation. Implementation of MM AES-2 would reduce potential glare impacts from new lighting fixtures at the substations to less than significant.

MM AES-2 Lighting fixtures shall be located, directed, and designed (e.g., using non-glare bulbs) to illuminate the substation property at the minimum level to ensure worker safety while also avoiding casting light or glare on off-site locations beyond the substation fence lines at the nearest residences.

Potential glare from the project's new circuits, tubular steel poles at two substations, and new steel support structures would be minimal and short term, because the materials used would weather to a dull finish in 6 to 18 months and would be consistent with other power lines in the existing project right-of-way. The proposed new circuits, tubular steel poles, and new steel support structures would not create a new glare source or increase substantial glare in the project area.