

5.0 Comparison of Alternatives

The purpose of an alternatives analysis pursuant to the California Environmental Quality Act (CEQA) is to identify feasible alternatives that would attain most of the basic objectives of the project being proposed while avoiding or substantially reducing at least of one its significant effects. (Pub. Resources Code, § 21002; CEQA Guidelines, § 15126.6.) This chapter analyzes the advantages and disadvantages of each alternative being considered in the Environmental Impact Report (EIR) for the proposed Valley-Ivyglen 115-kilovolt (kV) Subtransmission Line Project (proposed Valley-Ivyglen Project, or VIG) and the proposed Alberhill System Project (proposed Alberhill Project, or ASP) (see Chapter 3, “Description of Alternatives” for further information on each alternative). The analysis is based on comparison of environmental impacts of the proposed projects presented in Chapter 4 (“Environmental Analysis”) to the environmental impacts of the alternatives retained for consideration in this EIR.

The alternatives to the proposed Valley-Ivyglen Project retained for consideration in this EIR are:

- VIG Alternative A – Campbell Ranch Road (115-kV Segment VIG8)
- VIG Alternative B1 – Underground along Santiago Canyon Road (115-kV Segment VIG8)
- VIG Alternative B2 – Santiago Canyon Road Underground and Overhead
- VIG Alternative C – Underground along Temescal Canyon Road and Horsethief Canyon Road (115-kilovolt [kV] Segment VIG6)
- VIG Alternative M – Underground along the Entire Proposed Project Alignment
- VIG No Project Alternative

The alternatives to the proposed Alberhill Project retained for consideration in this EIR are:

- ASP Alternative B – All Gas-Insulated Switchgear at Proposed Alberhill Substation Site
- ASP Alternative DD – Serrano Commerce Center Substation Site
- ASP No Project Alternative

An Environmentally Superior Alternative for each proposed project is identified in Sections 5.2.7 and 5.3.4.

5.1 Comparison Methodology

5.1.1 CEQA Requirements

CEQA Guidelines Section 15126.6(d) contains guidance regarding the comparison of alternatives. It states:

The EIR shall include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project. A matrix displaying the major characteristics and significant environmental impacts of each alternative may be used to summarize the comparison. If an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the significant effects of the

1 alternative shall be discussed, but in less detail than the significant effects of the project as
2 proposed.

3
4 If the EIR identifies the No Project Alternative as the Environmentally Superior Alternative, CEQA
5 Guidelines section 15126.6(e)(2) requires that the lead agency identify an Environmentally Superior
6 Alternative among the other alternatives analyzed in the EIR.

7 8 **5.1.2 Comparison Methodology**

9
10 The following process was used to conduct a comparison of alternatives and the proposed projects in this
11 EIR:

- 12
13 • **Step 1: Identification of Alternatives and Potential Environmental Effects.** A screening
14 process was used to identify a number of alternatives to the proposed projects. An Alternatives
15 Screening Report (Appendix D) was prepared during this process to document the criteria used to
16 evaluate and select alternatives for further analysis, including their feasibility, the extent to which
17 they would meet most of the basic objectives of the proposed projects (Section 1.2, “Objectives
18 of the Proposed Projects”), and their potential to avoid or substantially lessen a potentially
19 significant effect of the proposed projects. The potentially significant effects utilized for the
20 screening report were identified based on the applicant’s Project Modification Report,
21 Proponent’s Environmental Assessment, and a preliminary review of the proposed projects and
22 environmental setting in the proposed projects’ areas.
- 23 • **Step 2: Evaluation of Environmental Impacts.** Environmental impacts from construction and
24 operation of the proposed projects are evaluated by resource area in Chapter 4 of this EIR.
25 Chapter 4 contains a much more detailed evaluation than that presented in the Alternatives
26 Screening Report and covers more resource areas. Table ES-1 in the Executive Summary
27 provides a detailed summary of the impacts anticipated to result from the proposed projects. Once
28 the EIR’s analysis of the proposed projects’ impacts was completed, the range of alternatives
29 considered in the Alternatives Screening Report was refined.
- 30 • **Step 3: Comparison of the Proposed Project and Alternatives.** This chapter compares the
31 environmental impacts of the proposed projects to those of each alternative, including the No
32 Project Alternative. An Environmentally Superior Alternative is then identified for each proposed
33 project.

34 35 **5.2 Comparison of Valley-Ivyglen Project Alternatives**

36
37 This section analyzes the advantages and disadvantages of each VIG alternative in comparison to the
38 proposed Valley-Ivyglen Project. It evaluates whether the VIG Alternative would be more or less
39 impactful than the proposed Valley-Ivyglen Project with respect to resource areas for which a significant
40 impact was identified in Section 4.0, “Environmental Analysis.” Table 5-1 summarizes the analysis and
41 determinations for the proposed Valley-Ivyglen Project. It ranks each alternative according to its ability
42 to reduce an impact of the proposed project, from environmentally superior (1) to least environmentally
43 superior (6). A ranking is not provided when the impacts of an alternative would be comparable or
44 greater, since in this case the alternative would not be environmentally superior for that resource area.

Table 5-1 Summary of the Valley-Ivyglen Project Alternatives Analyses and Determination

Resource Area	Proposed Valley-Ivyglen Project	VIG Alternative A (Rank)	VIG Alternative B1 (Rank)	VIG Alternative B2 (Rank)	VIG Alternative C (Rank)	VIG Alternative M (Rank)	No Project Alternative (Rank)	Environmentally Superior Alternative ^(a)
Aesthetics	Less than significant with mitigation	Similar	Similar	Greater	Reduced (3)	Reduced (2)	No Impact (1)	VIG Alternative M
Agriculture and Forestry	Less than significant	Similar	Similar	Similar	Similar	Reduced (2)	No Impact (1)	VIG Alternative M
Air Quality	Significant and unavoidable	Greater	Greater	Similar	Greater	Greater	No Impact (1)	None
Biological Resources	Less than significant with mitigation	Reduced ^(b) (2)	Reduced (4)	Reduced (3)	Reduced ⁽²⁾ (2)	Greater	No Impact (1)	VIG Alternative A and C ^(b)
Cultural Resources	Less than significant with mitigation	Similar	Similar	Similar	Reduced (2)	Greater	No Impact (1)	VIG Alternative C
Geology, Soils, and Mineral Resources	Less than significant with mitigation	Greater	Greater	Greater	Reduced (3)	Reduced (2)	No Impact (1)	VIG Alternative M
Greenhouse Gases	Less than significant	Greater	Greater	Greater	Reduced (2)	Reduced (3)	No Impact (1)	VIG Alternative C
Hazards and Hazardous Materials	Less than significant with mitigation	Reduced ^(b) (2)	Reduced (3)	Reduced (4)	Reduced ^(b) (2)	Greater	No Impact (1)	VIG Alternative A and C ^(b)
Hydrology and Water Quality	Less than significant with mitigation	Reduced ^(b) (2)	Reduced (3)	Reduced (4)	Reduced ^(b) (2)	Reduced (5)	No Impact (1)	VIG Alternative A and C ^(b)
Land Use and Planning	Less than significant with mitigation	Similar	Similar	Similar	Similar	Similar	No Impact (1)	None
Noise and Vibrations	Significant and unavoidable	Greater	Greater	Greater	Similar	Greater	No Impact (1)	None
Population and Housing	Less than significant	Similar	Similar	Similar	Similar	Greater	No Impact (1)	None
Public Services and Utilities	Less than significant	Similar	Similar	Similar	Similar	Reduced (2)	No Impact (1)	VIG Alternative M
Recreation	Less than	Similar	Similar	Similar	Similar	Greater	No Impact	None

Table 5-1 Summary of the Valley-Ivyglen Project Alternatives Analyses and Determination

Resource Area	Proposed Valley-Ivyglen Project	VIG Alternative A (Rank)	VIG Alternative B1 (Rank)	VIG Alternative B2 (Rank)	VIG Alternative C (Rank)	VIG Alternative M (Rank)	No Project Alternative (Rank)	Environmentally Superior Alternative ^(a)
	significant						(1)	
Transportation and Traffic	Less than significant with mitigation	Greater	Similar	Similar	Similar	Greater	No Impact (1)	None

Notes

^(a) CEQA Guidelines section 15126.6(e)(2) requires that the lead agency identify an Environmentally Superior Alternative among the other alternatives analyzed in the EIR if the EIR identifies the No Project Alternative as the Environmentally Superior Alternative. Since the No Project Alternative would result in No Impact for all resource areas, it would be the Environmentally Superior Alternative. Therefore, this column identifies the Environmentally Superior Alternative among the other alternatives for each resource area.

^(b) VIG Alternative A and VIG Alternative C do not have overlapping components; therefore, these alternatives can have the same environmentally superior ranking as both alternatives could be incorporated into the proposed project.

Key:

CEQA California Environmental Quality Act

EIR Environmental Impact Report

VIG Valley-Ivyglen

1
2

5.2.1 VIG Alternative A—Campbell Ranch Road (115-kV Segment VIG8)

VIG Alternative A includes construction of 115-kV Segments VIG1 through VIG7 as described for the proposed Valley–Ivyglen Project, but 115-kV Segment VIG8 would be routed underground along Campbell Ranch Road instead of underground along Temescal Canyon Road (see Figure 3-1). The comparison of alternatives focuses on how impacts would differ along 115-kV Segment VIG8, given that impacts on all other components would be the same.

Aesthetics

The aesthetic impacts of VIG Alternative A would be similar to those of the proposed Valley-Ivyglen Project. Construction and operation of 115-kV Segment VIG8 would be similar under the alternative and the proposed project, though the location of the alignment would be different. Construction activities and equipment for this alternative would be temporarily visible to motorists on Campbell Ranch Road, and views of the construction area from Interstate 15 (I-15) would be partially obscured by foliage along I-15, similar to the proposed project. VIG Alternative A would not be visible during operation; therefore, it would not impact the visual quality of the surrounding area or create a new source of light or glare. Impacts of VIG Alternative A to aesthetics would therefore be similar to those of the proposed project.

Air Quality

The highest level of intensity of daily construction activities under VIG Alternative A would be the same as for the proposed project. As shown in Appendix B,¹ the undergrounding activities of the proposed project would create the greatest Peak Daily Emissions. Thus, daily emissions impacts under VIG Alternative A would be the same as the proposed project. VIG Alternative A would therefore also have significant impacts on air quality from emissions of oxides of nitrogen (NO_x), particulate matter less than or equal to 10 microns in diameter (PM₁₀), and particulate matter less than or equal to 2.5 microns in diameter (PM_{2.5}). Similar to the proposed Valley–Ivyglen Project, NO_x and PM_{2.5} emissions associated with VIG Alternative A would be less than significant with mitigation similar to that developed for the proposed Valley–Ivyglen Project. Additionally, impacts from PM₁₀ emissions would remain significant and unavoidable under VIG Alternative A and would be similar to the proposed Valley–Ivyglen Project. VIG Alternative A would negligibly increase the amount of undergrounding when compared to the proposed project. Assuming a negligibly longer construction period to account for the additional undergrounding, there would be more days of peak daily emissions under VIG Alternative A than under the proposed project. Therefore, VIG Alternative A would result in a negligible increase in total emissions over the lifetime of project construction.

Biological Resources

VIG Alternative A would require approximately 2,000 feet more disturbance than the proposed Valley–Ivyglen Project along 115-kV Segment VIG8. This additional disturbance would occur within the rights-of-way (ROWs) of De Palma Road, Campbell Ranch Road, and Temescal Canyon Road. The potential to impact a special status species along VIG Alternative A is very low since the construction area is currently either paved or landscaped. VIG Alternative A would include less construction than the proposed project in areas that would potentially affect jurisdictional waters. Along the VIG Alternative A 115-kV Segment VIG8 alignment, the National Wetlands Inventory (NWI) shows Sycamore Creek near the intersection of Campbell Ranch Road and Mayhew Canyon Road, and the intersection of Campbell Ranch Road and Indian Truck Trail. It parallels Campbell Ranch Road for a total of about 210 feet. There is also a mapped wetland near Alternative A 115-kV Segment VIG8's intersection with 115-kV Segment VIG7 that parallels De Palma Road for about 140 feet. VIG Alternative A's 115-kV Segment VIG8

¹ See Table 2 on the Peak Daily Emissions worksheet of the VIG_AQ Emissions_Without PC-J.xls file in Appendix B (SCE 2014).

1 would cross two drainages. In comparison, the proposed project's 115-kV Segment VIG8 is paralleled by
2 mapped wetlands within 40 to 180 feet of the edge of pavement of Temescal Canyon Road for about 0.8
3 miles, and this segment would cross six drainages.

4
5 Therefore, although VIG Alternative A would involve more ground disturbance than the proposed
6 Valley-Ivyglen Project, the location of the disturbance would result in a reduced and substantially lower
7 potential for impacts to drainages and riparian habitat on 115-kV Segment VIG8 than the proposed
8 Valley-Ivyglen Project. Impacts to biological resources under VIG Alternative A would be less than
9 those of the proposed project along 115-kV Segment VIG8 but would still be significant. Significant
10 impacts would be reduced to less than significant with mitigation measures similar to those developed for
11 the proposed Valley-Ivyglen Project.

12 13 **Cultural Resources**

14 VIG Alternative A would require approximately 2,000 feet more disturbance, including excavation, than
15 the proposed Valley-Ivyglen Project along 115-kV Segment VIG8. The additional excavation performed
16 under VIG Alternative A would occur within the ROWs of De Palma Road, Campbell Ranch Road, and
17 Temescal Canyon Road. The potential of discovering a significant cultural resource within Campbell
18 Ranch Road is low, since these areas have already been disturbed. Therefore, although VIG Alternative A
19 would increase the amount of ground disturbance for the project, the fact that most of the disturbance
20 would be within Campbell Ranch Road means that VIG Alternative A would have about the same
21 potential to impact cultural resources as the proposed project. Impacts to cultural resources under VIG
22 Alternative A would be reduced to less than significant with mitigation measures similar to those
23 developed for the proposed Valley-Ivyglen Project.

24 25 **Geology, Soils, and Mineral Resources**

26 VIG Alternative A would increase ground disturbance by less than 0.5 percent² above that associated with
27 the proposed project. This would result in a somewhat higher potential for erosion and loss of topsoil than
28 the proposed project. VIG Alternative A would therefore have somewhat greater impacts to geology and
29 soils compared to the proposed Valley-Ivyglen Project.

30 31 **Hazards and Hazardous Materials**

32 Construction of VIG Alternative A would utilize the same construction equipment, methods, and
33 materials as the proposed Valley-Ivyglen Project. VIG Alternative A would result in a ground
34 disturbance increase of less than 0.5 percent above that associated with the proposed project. This would
35 result in a negligibly higher potential for accidents and hazardous materials impacts than the proposed
36 project because more construction would be required. Blasting would not be required along the alternative
37 alignment. However, overall, VIG Alternative A would result in reduced hazards impacts as compared to
38 the proposed project. Impacts from hazardous materials under VIG Alternative A would be reduced to
39 less than significant with mitigation measures similar to those developed for the proposed Valley-Ivyglen
40 Project.

41 42 **Hydrology and Water Quality**

43 VIG Alternative A would include less construction than the proposed Valley-Ivyglen Project in areas that
44 would potentially affect jurisdictional waters, as previously discussed for biological resources. VIG
45 Alternative A would result in a ground disturbance increase of less than 0.5 percent above that associated
46 with the proposed project. This would result in a negligible increase in the potential for sedimentation and
47 hazardous materials spills when compared to the proposed project. The potential for drainage alteration

² This number assumes 636 acres of disturbance.

1 impacts would be slightly less under VIG Alternative A than the proposed project, since, as mapped with
2 NWI data, 115-kV Segment VIG8 would cross six drainages as part of the proposed project and only two
3 drainages under VIG Alternative A. Overall, impacts on water quality and hydrology would be reduced
4 under VIG Alternative A when compared to the proposed project, but impacts would still be significant.
5 Mitigation similar to that developed for the proposed Valley-Ivyglen Project would reduce these impacts
6 to less than significant.

7 8 **Land Use and Planning**

9 VIG Alternative A would have impacts on land use similar to those described for the proposed Valley-
10 Ivyglen Project. Undergrounding Segment 8 along Campbell Ranch Road instead of Temescal Ranch
11 Road would neither create nor avoid a land use conflict that would result in significant environmental
12 impacts. Impacts under VIG Alternative A would be similar to those of the proposed project.

13 14 **Noise**

15 Construction of VIG Alternative A's 115-kV Segment VIG8 would utilize the same construction
16 equipment, methods, and materials as the proposed Valley-Ivyglen Project's 115-kV Segment VIG8.
17 Construction activities would generate significant short-term increases in ambient noise levels along De
18 Palma Road, Campbell Ranch Road, and Temescal Canyon Road. Sensitive receptors would be closer
19 under VIG Alternative A; the closest receptors would be about 40 feet away from 115-kV Segment VIG8
20 on De Palma Road, whereas for the proposed Valley-Ivyglen Project, the closest sensitive receptor would
21 be 158 feet from 115-kV Segment VIG8. There are also more sensitive receptors along VIG Alternative
22 A's 115-kV Segment VIG8. Noise at the closest sensitive receptor under VIG Alternative A would be
23 about 97 A-weighted decibels (dBA), which is above the significance threshold of 75 dBA. Though
24 blasting would not be needed on this alternative alignment, overall impacts would be greater than those of
25 the proposed project and would be significant. Mitigation would be implemented but could not reduce
26 noise levels by 22 dBA, and therefore impacts would remain significant.

27 28 **Transportation and Traffic**

29 Construction of VIG Alternative A would require a similar number of workers and include the use of the
30 same construction equipment, methods, and materials as the proposed Valley-Ivyglen Project. Trips
31 would be distributed slightly differently than for the proposed project during construction, since more
32 construction equipment and vehicles would be routed south of I-15 from Indian Truck Trail rather than
33 north of I-15. This change would result in negligibly fewer impacts to level of service (LOS) at
34 intersections also used to access other project components, such as the intersection of Temescal Canyon
35 Road with Indian Truck Trail. Traffic may instead negligibly increase at the intersection of Indian Truck
36 Trail Road and Campbell Ranch Road. The proposed project would maintain the overall LOS at Indian
37 Truck Trail Road and Campbell Ranch Road at LOS D, with a delay of 39.5 seconds (increase of 0.8
38 seconds) in the AM peak hour and 45.7 seconds (increase of 8.5 seconds) in the PM peak hour. Signalized
39 delay can be up to 55 seconds to stay within the acceptable threshold of LOS D. Even if delay doubled on
40 these intersections when compared to the proposed project, delay would be less than 55 seconds and
41 would be within an acceptable LOS. Impacts would be similar and would still be less than significant for
42 intersections near 115-kV Segment VIG8 under VIG Alternative A.

43
44 The alignment of VIG Alternative A would occur in front of Riverside County Sycamore Creek Fire
45 Station 64 on Campbell Ranch Road. Trenching activities in front of the fire station would cause a greater
46 impact to emergency access than would be associated with the proposed project. The mitigation measure
47 requiring provisions for emergency vehicle access developed for the proposed project would reduce this
48 impact to less than significant for VIG Alternative A.
49

1 Other impacts, including lane closure and potential road damage, would be about the same for VIG
2 Alternative A and the proposed project, given that VIG Alternative A is only 2,000 feet longer than the
3 proposed project. The same mitigation developed for the proposed project could be used to reduce
4 impacts of VIG Alternative A to less than significant.

6 Other Resource Areas

- 7 • **Agriculture and Forestry:** The impacts to farmland and forestry would be similar under VIG
8 Alternative A compared to the proposed Valley-Ivyglen Project.
- 9 • **Greenhouse Gases:** VIG Alternative A would result in a ground disturbance increase of less than
10 one percent above that associated with the proposed Valley-Ivyglen Project; this involves a slight
11 increase in equipment use and therefore in greenhouse gas emissions. Impacts would be greater
12 than those of the proposed project.
- 13 • **Population and Housing:** The same crew sizes would be needed for VIG Alternative A and the
14 proposed Valley-Ivyglen Project, so impacts would be similar as to those of the proposed project.
- 15 • **Public Services and Utilities:** The VIG8 alignment under VIG Alternative A would be only
16 2,000 feet longer than the alignment for the proposed Valley-Ivyglen Project, so increase in water
17 use for fugitive dust would be negligible. The construction period would be about the same,
18 resulting in similar impacts to public services for the alternative and the proposed project.
- 19 • **Recreation:** VIG Alternative A would not result in impacts to recreation, which would be the
20 same as the proposed Valley-Ivyglen Project.

22 5.2.2 VIG Alternative B1—Underground along Santiago Canyon Road (115-kV 23 Segment VIG8)

24
25 VIG Alternative B1 includes construction of 115-kV Segments VIG1 through VIG7 as described for the
26 proposed Valley-Ivyglen Project; however, 115-kV Segment VIG8 would be installed in approximately
27 3.5 miles of new underground conduit and approximately 12 vaults along De Palma Road, Santiago
28 Canyon Road, a short segment of Temescal Canyon Road west of I-15, and Maitri Road, as well as an
29 unnamed road, instead of along Temescal Canyon Road east of I-15 (see Figure 3-1).

31 Aesthetics

32 Construction activities and equipment for VIG Alternative B1 would be temporarily visible to motorists
33 along about 500 feet of I-15, an Eligible Scenic Highway. This impact is comparable to the proposed
34 Valley-Ivyglen Project, given that most of the construction activities would be partially screened by
35 vegetation and set back from I-15. Motorists along the local roadways mentioned previously would also
36 see construction, which would be similar to the proposed project but appear in a different location. VIG
37 Alternative B1 would not be visible during operation, and therefore would not impact the visual quality of
38 the surrounding area or create a new source of light or glare. Impacts of VIG Alternative B1 would
39 therefore be similar to impacts of the proposed project.

41 Air Quality

42 The highest level of intensity of daily construction activities under VIG Alternative B1 would be the same
43 as for the proposed project. As shown in Appendix B,¹ the undergrounding activities of the proposed
44 project would create the greatest Peak Daily Emissions. Thus, daily emissions impacts under VIG
45 Alternative B1 would be the same as the proposed project. VIG Alternative B1 would therefore also have
46 significant impacts on air quality resulting from NO_x, PM₁₀, and PM_{2.5} emissions. Similar to the proposed
47 Valley-Ivyglen Project, NO_x and PM_{2.5} emissions would be less than significant with mitigation similar

1 to that developed for the proposed project. Additionally, impacts from PM₁₀ emissions would remain
2 significant and unavoidable under VIG Alternative B1, which would be similar to the proposed project.
3 VIG Alternative B1 would negligibly increase the amount of undergrounding when compared to the
4 proposed project. Assuming a negligibly longer construction period to account for the additional
5 undergrounding, there would be more days of peak daily emissions under VIG Alternative B1 than the
6 proposed project. Therefore, VIG Alternative B1 would result in a negligible increase in total emissions
7 over the lifetime of project construction when compared to the proposed project.
8

9 **Biological Resources**

10 VIG Alternative B1 would require approximately 8,000 feet more disturbance than the proposed Valley–
11 Ivyglen Project along 115-kV Segment VIG8. This additional disturbance would occur within the ROWs
12 of several local roadways. The potential to impact special status species along VIG Alternative B1 is low
13 since the route is either developed or very disturbed. The VIG Alternative B1 route would be located on
14 the edges of potential vernal pool habitat. VIG Alternative B1 would include less construction in areas
15 that would potentially affect jurisdictional waters. Along the VIG Alternative B1 115-kV Segment VIG8
16 alignment, the NWI shows that VIG Alternative B1 would parallel mapped waters for about 0.5 miles
17 within 15 to 180 feet of the alignment. VIG Alternative B1’s 115-kV Segment VIG8 would cross three
18 drainages. In comparison, the proposed project’s 115-kV Segment VIG8 is paralleled by mapped
19 wetlands within 40 to 180 feet of the edge of pavement of Temescal Canyon Road for about 0.8 miles and
20 would cross six drainages. Potential impacts to waters under VIG Alternative B1 would be substantially
21 less than those associated with the proposed project. Overall, impacts to biological resources under VIG
22 Alternative B1 would be reduced as compared to the proposed project along 115-kV Segment VIG8 but
23 still would be significant. Significant impacts would be reduced to less than significant with mitigation
24 measures similar to those developed for the proposed Valley–Ivyglen Project.
25

26 **Cultural Resources**

27 VIG Alternative B1 would require approximately 1.5 percent³ more ground disturbance, including
28 excavation, than the proposed Valley–Ivyglen Project along 115-kV Segment VIG8. The additional
29 disturbance under VIG Alternative B1 would occur within the ROWs of De Palma Road, Santiago
30 Canyon Road, and Maitri Road, as well as an unnamed road. The potential of discovering a significant
31 cultural resource along VIG Alternative B1 is low since the route is either developed or very disturbed.
32 Therefore, although VIG Alternative B1 would result in more ground disturbance than the proposed
33 project, the potential to impact cultural resources would be about the same for both. Impacts to cultural
34 resources under VIG Alternative B1 would be reduced to less than significant with mitigation measures
35 similar to those developed for the proposed Valley–Ivyglen Project.
36

37 **Geology, Soils, and Mineral Resources**

38 VIG Alternative B1 would increase ground disturbance by about 1.5 percent over that associated with the
39 proposed Valley–Ivyglen Project. This would result in negligibly greater potential for erosion and loss of
40 topsoil than the proposed project. VIG Alternative B1 would therefore have slightly greater impacts to
41 geology and soils than the proposed project.
42

43 **Hazards and Hazardous Materials**

44 Construction of VIG Alternative B1 would utilize the same construction equipment, methods, and
45 materials as the proposed Valley–Ivyglen Project. VIG Alternative B1 would increase ground disturbance
46 by about 1.5 percent over that associated with the proposed project. This would result in a negligibly
47 higher potential for accidents and hazardous materials impacts than for the proposed project because more

³ This number assumes approximately 643 acres of disturbance.

1 construction would be needed. Blasting would not be required along the alternative alignment, however,
2 which would reduce overall hazards impacts compared to the proposed project. Overall, VIG Alternative
3 B1 would result in reduced hazards and hazardous materials impacts as compared to the proposed project.
4 Impacts from hazardous materials under VIG Alternative B1 would be reduced to less than significant
5 with mitigation measures similar to those developed for the proposed Valley-Ivyglen Project.

6 7 **Hydrology and Water Quality**

8 VIG Alternative B1 would include less construction than the proposed Valley-Ivyglen Project in areas
9 that would potentially affect jurisdictional waters, as previously discussed for biological resources. VIG
10 Alternative B1 would increase ground disturbance by about 1.5 percent above that associated with the
11 proposed Valley-Ivyglen Project. This would result in a negligibly higher potential for sedimentation and
12 hazardous materials spills than the proposed project. The potential for drainage alteration impacts would
13 be slightly lower under VIG Alternative B1 than the proposed project, since, as mapped with NWI data,
14 115-kV Segment VIG8 would cross six drainages as part of the proposed project and only three drainages
15 would be crossed under VIG Alternative B1. Overall, impacts on water quality and hydrology under VIG
16 Alternative B1 would be reduced compared to the proposed project, but would still be significant.
17 Mitigation similar to that developed for the proposed Valley-Ivyglen Project would reduce VIG
18 Alternative B1 impacts to less than significant.

19 20 **Land Use and Planning**

21 VIG Alternative B1 would have impacts on land use similar to those described for the proposed Valley-
22 Ivyglen Project. Undergrounding 115-kV Segment VIG8 along the VIG Alternative B1 alignment would
23 neither create nor avoid a land use conflict that would result in significant environmental impacts. Impacts
24 on land use under VIG Alternative B1 would be the same as for the proposed project.

25 26 **Noise**

27 Construction of VIG Alternative B1's 115-kV Segment VIG8 would utilize the same construction
28 equipment, methods, and materials as the proposed Valley-Ivyglen Project's 115-kV Segment VIG8.
29 Construction activities would generate significant short-term increases in ambient noise levels along De
30 Palma Road, Santiago Canyon Road, a short segment of Temescal Canyon Road west of I-15, and Maitri
31 Road, as well as an unnamed road. There are also more sensitive receptors along VIG Alternative B1's
32 115-kV Segment VIG8 than for the proposed project. Sensitive receptors would be closer under VIG
33 Alternative B1; the closest receptors would be about 18 feet away from 115-kV Segment VIG8 on
34 Santiago Canyon Road, whereas under the proposed project the closest sensitive receptor would be 158
35 feet from 115-kV Segment VIG8. Noise at the closest sensitive receptor under VIG Alternative B1 would
36 be over 97 dBA, which is above the significance threshold of 75 dBA. Though blasting would not be
37 needed for this alternative alignment, impacts would be greater than the proposed project and would be
38 significant. Mitigation would be implemented but could not reduce noise levels to under 75 dBA, and
39 therefore noise impacts would remain significant.

40 41 **Transportation and Traffic**

42 Construction of VIG Alternative B1 would require a similar number of workers and include the use of the
43 same construction equipment, methods, and materials as the proposed Valley-Ivyglen Project. Trips
44 would be distributed slightly differently than for the proposed project during construction, since more
45 construction equipment and vehicles would be routed south of I-15 from Indian Truck Trail rather than
46 north of I-15. This change would result in negligibly fewer impacts to LOS at intersections also used to
47 access other project components, such as the intersection of Temescal Canyon Road with Indian Truck
48 Trail. Traffic may instead negligibly increase at the intersection of Indian Truck Trail Road and Campbell
49 Ranch Road. The proposed project would maintain the overall existing LOS D at Indian Truck Trail Road

1 and Campbell Ranch Road, with a delay of 39.5 seconds (increase of 0.8 seconds) in the AM peak hour
2 and 45.7 seconds (increase of 8.5 seconds) in the PM peak hour. Signalized delay can be up to 55 seconds
3 to stay within the acceptable threshold of LOS D. Even if delay doubled on this intersection when
4 compared to the proposed project, delay would be less than 55 seconds and would be within an acceptable
5 LOS. Impacts would be similar and would still be less than significant for intersections near 115-kV
6 Segment VIG8 under VIG Alternative B1.

7 **Other Resource Areas**

- 9 • **Agriculture and Forestry:** The impacts to farmland and forestry would be the same under VIG
10 Alternative B1 and proposed Valley-Ivyglen Project.
- 11 • **Greenhouse Gases:** VIG Alternative B1 would increase ground disturbance by about 1.5 percent
12 over that associated with the proposed Valley-Ivyglen Project; this involves an increase in
13 equipment use and therefore slightly greater greenhouse gas emissions.
- 14 • **Population and Housing:** The same crew sizes would be needed under VIG Alternative B1 as
15 for the proposed Valley-Ivyglen Project for a negligibly longer construction period, so impacts of
16 the alternative and the proposed project would be about the same.
- 17 • **Public Services and Utilities:** The alternative 115-kV VIG8 alignment would be only 8,000 feet
18 longer than the proposed alignment, so the increase in water use needed for fugitive dust control
19 would be negligible. The construction period for VIG Alternative B1 would be negligibly longer
20 than that of the proposed Valley-Ivyglen Project, resulting in the same impacts to public services
21 as the proposed project.
- 22 • **Recreation:** Alternative VIG B1 would not result in impacts to recreation, which is the same as
23 the proposed project.

24 **5.2.3 VIG Alternative B2— Santiago Canyon Road Underground and Overhead** 25 **(115-kV Segment VIG8)**

26 VIG Alternative B2 would include construction of 115-kV Segments VIG1 through VIG7 as described
27 for the proposed Valley-Ivyglen Project; however, 115-kV Segment VIG8 would be installed on new
28 poles and in new underground conduit for approximately 3.5 miles along De Palma Road, Santiago
29 Canyon Road, and Maitri Road, as well as an unnamed road (see Figure 3-1). About 1.5 miles would be
30 undergrounded, with the remaining 2 miles being installed overhead on tubular steel poles (TSPs) and
31 latticework steel (LWS) poles.
32
33

34 **Aesthetics**

35 Construction activities and equipment for VIG Alternative B2 would be temporarily visible to motorists
36 along about 500 feet of I-15, an Eligible Scenic Highway. This is comparable to the proposed project's
37 impact, given that most of the construction activities would be partially screened by vegetation and set
38 back from I-15. Motorists along the local roadways mentioned previously would also see construction,
39 which would be similar to the proposed project but in a different location. The underground portions of
40 VIG Alternative B2 would not be visible during operation and therefore would not impact the visual
41 quality of the surrounding area or create a new source of light or glare.
42
43

44 The aboveground portions of VIG Alternative B2 would be placed on portions of Temescal Canyon Road
45 that have an environmental setting and visual quality similar to those described for Key Viewpoint 7
46 (Lake Street). Therefore, the visual quality impacts of VIG Alternative B2 along Temescal Canyon Road
47 would be similar to those described for Key Viewpoint 7 as part of the proposed Valley-Ivyglen Project,
48 which are classified as significant. Mitigation similar to that introduced for the proposed Valley-Ivyglen

1 Project would reduce these impacts to less than significant. Other aboveground portions of VIG
2 Alternative B2 would occur along access roads in an area used for aggregate mining and would not
3 degrade the visual quality of the area.
4

5 Aboveground portions of VIG Alternative B2 would also be visible to the west of Santiago Canyon Road
6 and the Deleo Regional Sports Park. There is currently no electric transmission infrastructure in this area
7 and none proposed under the proposed project. Thus, LWSPs and TSPs may substantially reduce the
8 visual quality of the views from Santiago Canyon Road and the Diablo Regional Sports Park. The land
9 where the segment would be located is relatively flat, so it would likely not be feasible to screen or
10 camouflage the color or finish of the TSPs and LWSPs. This may result in a significant, unavoidable
11 aesthetic impact. Compared to the proposed project's 115-kV Segment VIG8, VIG Alternative B2 would
12 have greater impacts.
13

14 **Air Quality**

15 The highest level of intensity of daily construction activities under VIG Alternative B2 would be the same
16 as for the proposed project. As shown in Appendix B,¹ the undergrounding activities of the proposed
17 project would create the greatest Peak Daily Emissions. Thus, daily emissions impacts under this
18 alternative would be the same as the proposed project. VIG Alternative B2 would therefore also have
19 significant impacts on air quality from emissions of NO_x, PM₁₀, and PM_{2.5}. Similar to the proposed
20 Valley-Ivyglen Project, NO_x and PM_{2.5} daily emissions associated with VIG Alternative B2 would be
21 less than significant with mitigation similar to that developed for the proposed Valley-Ivyglen Project.
22 Additionally, impacts from daily PM₁₀ emissions would remain significant and unavoidable under this
23 alternative and would be similar to the proposed Valley-Ivyglen Project. VIG Alternative B2 would
24 negligibly decrease the amount of undergrounding when compared to the proposed project. Assuming a
25 negligibly shorter construction period for undergrounding, air emissions associated with undergrounding
26 would negligibly decrease. The alternative would negligibly increase the amount of overhead construction
27 when compared to the proposed project. This additional overhead construction would negligibly increase
28 air emissions when compared to the proposed project. Therefore, VIG Alternative B2 would result in
29 about the same total emissions over the lifetime of project construction.
30

31 **Biological Resources**

32 VIG Alternative B2 would require approximately 8,000 feet of disturbance more than the proposed
33 Valley-Ivyglen Project along 115-kV Segment VIG8. The additional disturbance under VIG Alternative
34 B2 would occur within the ROWs of several local roadways. The potential to impact special status
35 species along VIG Alternative B2 is low since the route is either developed or very disturbed. The route
36 would be located on the edges of potential vernal pool habitat. VIG Alternative B2 would require less
37 construction in areas that would potentially affect jurisdictional waters. Along the VIG Alternative B2
38 115-kV Segment VIG8 alignment, the NWI shows that VIG Alternative B2 would parallel mapped waters
39 for about 0.5 miles within 15 to 180 feet of the alignment. VIG Alternative B2's 115-kV Segment VIG8
40 would cross three drainages. In comparison, the proposed Valley-Ivyglen Project's 115-kV Segment
41 VIG8 is paralleled by mapped wetlands within 40 to 180 feet of the edge of pavement of Temescal
42 Canyon Road for about 0.8 miles and would cross over six drainages. Potential impacts to waters under
43 Alternative VIG B2 would be substantially lower than those associated with the proposed project; these
44 impacts would be significant but would be mitigated to less than significant with mitigation measures
45 similar to those developed for the proposed Valley-Ivyglen Project.
46

1 **Cultural Resources**

2 VIG Alternative B2 would require approximately 3.3 percent⁴ more ground disturbance, including
3 excavation, than the proposed Valley-Ivyglen Project along 115-kV Segment VIG8. The additional
4 disturbance under VIG Alternative B2 would occur within the ROWs of De Palma Road, Santiago
5 Canyon Road, and Maitri Road, as well as an unnamed road. The potential of discovering a significant
6 cultural resource along VIG Alternative B2 is low since the route is either developed or very disturbed.
7 Therefore, although VIG Alternative B2 would involve more ground disturbance, the potential for
8 impacts to cultural resources would be about the same as for the proposed project. Impacts to cultural
9 resources under VIG Alternative B2 would be reduced to less than significant with mitigation measures
10 similar to those developed for the proposed Valley-Ivyglen Project.

11
12 **Geology, Soils, and Mineral Resources**

13 VIG Alternative B2 would increase ground disturbance by about 3.3 percent over that associated with the
14 proposed Valley-Ivyglen Project. This would result in negligibly higher potential for erosion and loss of
15 topsoil than the proposed project. VIG Alternative B2 would therefore have slightly greater impacts to
16 geology and soils than the proposed Valley-Ivyglen Project.

17
18 **Hazards and Hazardous Materials**

19 Construction of VIG Alternative B2 would utilize the same construction equipment, methods, and
20 materials as the proposed Valley-Ivyglen Project. VIG Alternative B2 would involve about 3.3 percent
21 more ground disturbance than the proposed project. This would result in negligibly higher potential for
22 accidents and hazardous materials impacts than the proposed project because more construction would be
23 needed. Blasting would not be required along the alternative alignment, however, which would result in
24 lower overall hazards impacts as compared to the proposed project. Impacts from hazardous materials
25 under VIG Alternative B2 would be reduced to less than significant with mitigation measures similar to
26 those developed for the proposed Valley-Ivyglen Project.

27
28 **Hydrology and Water Quality**

29 VIG Alternative B2 would include less construction in areas that would potentially affect jurisdictional
30 waters, as previously discussed for biological resources. VIG Alternative B2 would increase ground
31 disturbance by about 3.3 percent over that associated with the proposed project. This would result in
32 negligibly greater potential for sedimentation and hazardous materials spills than the proposed project.
33 The potential for drainage alteration impacts would be slightly lower under VIG Alternative B2 than for
34 the proposed project since, as mapped with NWI data, 115-kV Segment VIG8 would cross six drainages
35 as part of the proposed project and only three drainages would be crossed under VIG Alternative B2.
36 Overall, impacts on water quality and hydrology under VIG Alternative B2 would be less than the
37 proposed project, but would still be significant. Mitigation similar to that developed for the proposed
38 Valley-Ivyglen Project would reduce these impacts to less than significant.

39
40 **Land Use and Planning**

41 VIG Alternative B2 would have impacts on land use similar to those described for the proposed Valley-
42 Ivyglen Project. Undergrounding 115-kV Segment VIG8 along the VIG Alternative B2 alignment would
43 neither create nor avoid a land use conflict that would result in significant environmental impacts. Impacts
44 would be the same as for the proposed project.

45

⁴ This number assumes approximately 654 acres of disturbance.

1 **Noise**

2 Construction of VIG Alternative B2's 115-kV Segment VIG8 would require the same construction
3 equipment, methods, and materials as the proposed Valley-Ivyglen Project's 115-kV Segment VIG8.
4 Construction activities would generate significant short-term increases in ambient noise levels along De
5 Palma Road, Santiago Canyon Road, a short segment of Temescal Canyon Road west of I-15, and Maitri
6 Road, as well as an unnamed road. There are also more sensitive receptors along VIG Alternative B2's
7 115-kV Segment VIG8. Sensitive receptors would also be closer under VIG Alternative B2; the closest
8 receptors are about 18 feet away from 115-kV Segment VIG8 on Santiago Canyon Road, whereas for the
9 proposed project the closest sensitive receptor is 158 feet from 115-kV Segment VIG8. Noise at the
10 closest sensitive receptor under VIG Alternative B2 would be over 97 dBA, which is above the
11 significance threshold of 75 dBA. Though blasting would not be needed on this alternative alignment,
12 impacts would be greater than with the proposed project and would be significant. Mitigation would be
13 implemented, but noise levels could not be reduced to under 75 dBA and would remain significant.
14

15 **Transportation and Traffic**

16 Construction of VIG Alternative B2 would require a similar number of workers and include the use of the
17 same construction equipment, methods, and materials as the proposed Valley-Ivyglen Project. Trips
18 would be distributed slightly differently than the proposed project, since more construction equipment and
19 vehicles would be routed south of I-15 from Indian Truck Trail rather than north of I-15. This change
20 would cause a negligible decrease in LOS impacts to intersections also used to access other project
21 components, such as the intersection of Temescal Canyon Road with Indian Truck Trail. Traffic might
22 instead negligibly increase at the intersection of Indian Truck Trail Road and Campbell Ranch Road. The
23 proposed project would maintain the existing overall LOS D at Indian Truck Trail Road and Campbell
24 Ranch Road, with a delay of 39.5 seconds (an increase of 0.8 seconds) in the AM peak hour and 45.7
25 seconds (an increase of 8.5 seconds) in the PM peak hour. Signalized delay can be up to 55 seconds to
26 stay within the acceptable threshold of LOS D. Even if delay doubled on this intersection when compared
27 to the proposed project, delay would still be less than 55 seconds and would be within the acceptable
28 LOS. Impacts would be about the same as the proposed project. Under VIG Alternative B2, impacts
29 would remain less than significant for intersections near 115-kV Segment VIG8.
30

31 **Other Resource Areas**

- 32
- 33 • **Agriculture and Forestry:** The impacts to farmland and forestry under VIG Alternative B2
34 would be the same as for the proposed Valley-Ivyglen Project.
 - 35 • **Greenhouse Gases:** VIG Alternative B2 would increase ground disturbance by about 3.3 percent
36 over that associated with the proposed project; this involves a negligible increase in equipment
37 use and therefore increased greenhouse gas emissions compared to the proposed project.
 - 38 • **Population and Housing:** The same crew sizes would be needed under VIG Alternative B2 as
39 under the proposed Valley-Ivyglen project for a negligibly longer construction period, so impacts
40 would be about the same as for the proposed project.
 - 41 • **Public Services and Utilities:** The alternative 115-kV VIG8 alignment would be only 8,000 feet
42 longer than the proposed alignment, so the increase in water use to control fugitive dust would be
43 negligible. The construction period would be negligibly longer, resulting in the same impacts to
44 public services as the proposed project.
 - 45 • **Recreation:** VIG Alternative B2 would not result in impacts to recreation, which would be the
46 same as the proposed project.

1 **5.2.4 VIG Alternative C—Underground along Temescal Canyon Road and**
2 **Horsethief Canyon Road (115-kV Segment VIG6)**
3

4 VIG Alternative C includes construction of 115-kV Segments VIG1 through VIG5 and VIG7 through
5 VIG 8, as described for the proposed Valley–Ivyglen Project; however, wood poles along a 0.75-mile
6 section of the Valley–Elsinore–Fogarty–Ivyglen 115-kV line along Temescal Canyon Road near the
7 western corner of the proposed Alberhill Substation site would be removed, and new underground conduit
8 capable of supporting two 115-kV circuits (the Valley–Elsinore–Fogarty–Ivyglen 115-kV line and
9 proposed Valley–Ivyglen 115-kV line) would be installed in lieu of Segment 115-kV VIG6 (see Figure 3-
10 2).

11
12 **Aesthetics**

13 Construction activities and equipment for VIG Alternative C would mostly be screened or out of view
14 from motorists along I-15 due to vegetation and topography, which would result in fewer visual impacts
15 than the proposed VIG 115-kV Segment VIG8 construction. During operation, however, VIG Alternative
16 C would not be visible, while the proposed project would be visible from I-15, an Eligible Scenic
17 Highway. The proposed project’s impacts on visual character in this area would be less than significant
18 but VIG Alternative C would avoid these impacts altogether. Under VIG Alternative C, a structure to
19 transition the line from underground to overhead near the intersection of Horsethief Canyon Road and De
20 Palma Road would increase visual impacts in this area since the only other infrastructure in the area is a
21 streetlamp. While the proposed project would involve subtransmission structures in this area, transition
22 structures tend to have greater visual impacts. Overall, aesthetic impacts would be reduced under this
23 alternative, but still would be significant. Aesthetic impacts under VIG Alternative C would be reduced to
24 less than significant with mitigation measures similar to those developed for the proposed project.
25

26 **Air Quality**

27 The highest level of intensity of daily construction activities under VIG Alternative C would be the same
28 as for the proposed project. As shown in Appendix B,¹ the undergrounding activities of the proposed
29 project would create the greatest Peak Daily Emissions. Thus, daily emissions impacts under VIG
30 Alternative C would be the same as the proposed project. Under VIG Alternative C, NO_x emissions
31 would be less than significant with mitigation similar to that developed for the proposed Valley–Ivyglen
32 Project. VIG Alternative C would have significant impacts on air quality from NO_x, PM₁₀, and PM_{2.5}
33 emissions. Similar to the proposed Valley–Ivyglen Project, NO_x and PM_{2.5} emissions under VIG
34 Alternative C would be less than significant with implementation of mitigation similar to that developed
35 for the proposed project. Additionally, impacts from PM₁₀ emissions would be less than for the proposed
36 Valley–Ivyglen Project but would remain significant and unavoidable under VIG Alternative C. VIG
37 Alternative C would, however, result in increased total emissions over the lifetime of project construction.
38 The most emissions-intensive activities would occur for a longer period of time under VIG Alternative C
39 due to undergrounding approximately 2.9 miles of the VIG Alternative C alignment compared to 1.9
40 miles for the proposed project. The decrease in helicopter use would be negligible due to the additional
41 one mile of undergrounding, since helicopter use would be needed for the rest of the aboveground
42 construction. Assuming a negligibly longer construction period to account for the additional
43 undergrounding, there would be more days of peak daily emissions under VIG Alternative C than under
44 the proposed project. Therefore, VIG Alternative C would result in a negligible increase in total emissions
45 over the lifetime of project construction.
46

47 **Biological Resources**

48 VIG Alternative C would require approximately 41 fewer acres of disturbance than the proposed Valley–
49 Ivyglen Project. VIG Alternative C would also result in avoidance of impacts on relatively undisturbed

1 vegetation south of I-15. Ground disturbance associated with Alternative C's 115-kV Segment VIG6
2 would occur within the ROWs of Temescal Canyon Road and Horsethief Canyon Road and would have a
3 lower probability of impacting a special status species than the proposed project. The probability of
4 encountering a special status species along the proposed 115-kV Segment VIG6 is much greater than
5 under VIG Alternative C, as the proposed project's 115-kV Segment VIG6 would install poles and
6 develop access roads within a large, generally undisturbed area south of I-15. The VIG Alternative C 115-
7 kV Segment VIG6 alignment would parallel or cross about 1,800 feet of waters and would cross one large
8 drainage. In comparison, the proposed project's 115-kV Segment VIG6 is paralleled by jurisdictional
9 waters for about 900 feet but would cross nine drainages. This would result in VIG Alternative C
10 substantially reducing impacts to biological resources as compared to the proposed project. Impacts on
11 biological resources under VIG Alternative C would still be significant but could be reduced to less than
12 significant with mitigation measures similar to those developed for the proposed Valley-Ivyglen Project.
13

14 **Cultural Resources**

15 VIG Alternative C would require approximately 6.5 percent⁵ less ground disturbance than the proposed
16 Valley-Ivyglen Project along 115-kV Segment VIG6. The reduced disturbance performed under VIG
17 Alternative C would occur within the ROW of Temescal Road. The potential of discovering a significant
18 cultural resource along VIG Alternative C is low since the road is either paved or very disturbed.
19 Therefore, VIG Alternative C's potential for impacts to cultural resources would be reduced as compared
20 to the proposed project. Impacts to cultural resources under VIG Alternative C would be reduced to less
21 than significant with mitigation measures similar to those developed for the proposed Valley-Ivyglen
22 Project.
23

24 **Geology, Soils, and Mineral Resources**

25 VIG Alternative C would decrease ground disturbance by about 6.5 percent compared to the proposed
26 Valley-Ivyglen Project. This would result in a slight decrease in the potential for erosion and loss of
27 topsoil as compared to the proposed project. VIG Alternative C would therefore have slightly reduced
28 impacts to geology and soils as compared to the proposed Valley-Ivyglen Project. Impacts would be
29 significant but would be mitigated to less than significant with measures similar to those developed for
30 the proposed Valley-Ivyglen Project.
31

32 **Hazards and Hazardous Materials**

33 Construction of VIG Alternative C would utilize the same construction equipment, methods, and
34 materials as the proposed Valley-Ivyglen Project. VIG Alternative C would decrease ground disturbance
35 by about 6.5 percent compared to the proposed project. This would result in a slightly lower potential for
36 accidents and hazardous materials impacts as compared to the proposed project because less construction
37 would be needed. Impacts from hazardous materials under VIG Alternative C would be reduced to less
38 than significant with mitigation measures similar to those developed for the proposed Valley-Ivyglen
39 Project.
40

41 **Hydrology and Water Quality**

42 VIG Alternative C would include less construction in areas that would potentially affect jurisdictional
43 waters, as previously discussed for biological resources. VIG Alternative C would result in about 6.5
44 percent less ground disturbance than that associated with the proposed project. This would result in
45 negligibly lower potential for sedimentation and hazardous materials spills as compared to the proposed

⁵ This number assumes that total disturbance is 592 acres, based on elimination of ten LWSPs, eight TSPs, and 7 miles of access roads, and that VIG Alternative C would require 4.5 acres of pole removal, 0.9 miles of 50-foot-wide trenching, and 4.2 acres for vaults.

1 project. The potential for drainage alteration impacts would be slightly lower under VIG Alternative C
2 than under the proposed project, since 115-kV Segment VIG6 would cross nine drainages as part of the
3 proposed project and VIG Alternative C would only cross one large drainage. Impacts would be
4 substantially reduced but still significant for VIG Alternative C. Mitigation similar to that developed for
5 the proposed Valley-Ivyglen Project would reduce these impacts to less than significant.

6 7 **Land Use and Planning**

8 VIG Alternative C would have land use impacts similar to those described for the proposed Valley-
9 Ivyglen Project. Undergrounding 115-kV Segment VIG6 would neither create nor avoid a land use
10 conflict that would result in significant environmental impacts. Impacts would be the same as for the
11 proposed project.

12 13 **Noise**

14 Construction of VIG Alternative C would utilize the same construction equipment, methods, and
15 materials as the proposed Valley-Ivyglen Project. Construction activities would generate short-term
16 increases in ambient noise levels along Temescal Canyon Road and Horsethief Canyon Road. Under this
17 alternative, the nearest sensitive receptor would be about the same distance as for the proposed project.
18 Impacts for VIG Alternative C would therefore be about the same as those of the proposed project and
19 would be significant. Noise impacts would be reduced to less than significant with mitigation similar to
20 that developed for the proposed Valley-Ivyglen Project, but not to less than significant.

21 22 **Transportation and Traffic**

23 Construction of VIG Alternative C would require a similar number of workers and utilize the same
24 construction equipment, methods, and materials as the proposed Valley-Ivyglen Project. Trips would be
25 distributed slightly differently than the proposed project since more construction equipment and vehicles
26 would be routed north of I-15 from Horsethief Canyon Road and Temescal Canyon Road rather than
27 south of I-15. This change would cause a negligible increase in LOS impacts at intersections also used to
28 access other project components, such as the intersection of Temescal Canyon Road with Horsethief
29 Canyon Road. That intersection operates at LOS B. Traffic to construct VIG Alternative C would not be
30 of sufficient volume to decrease the intersection's operation from LOS B to LOS D, and the intersection
31 would operate above the acceptable LOS of LOS D. More road closures would be needed under VIG
32 Alternative C than for the proposed project, since this alternative would be constructed within a public
33 roadway and the proposed project would not. This could cause significant safety impacts, but these
34 impacts would be reduced to less than significant with mitigation developed for the proposed project.
35 Overall, traffic impacts under VIG Alternative C would be similar to those likely to result from the
36 proposed project.

37 38 **Other Resource Areas**

- 39 • **Agriculture and Forestry:** The impacts to farmland and forestry would be the same under VIG
40 Alternative C and the proposed Valley-Ivyglen Project.
- 41 • **Greenhouse gases:** VIG Alternative C would result in about 6.5 percent less ground disturbance
42 and less helicopter use than that associated with the proposed Valley-Ivyglen Project; this
43 indicates a slight decrease in equipment use and therefore a slight decrease in greenhouse gas
44 emissions.
- 45 • **Population and Housing:** The same crew sizes would be needed for VIG Alternative C as for the
46 proposed Valley-Ivyglen Project for a negligibly shorter construction period, so impacts would
47 be about the same as the proposed project.

- **Public Services and Utilities:** The alternative 115-kV VIG6 alignment disturbance area would be about 41 acres less than that of the proposed alignment, so the decrease in water use to control fugitive dust would be negligible. The construction period would be negligibly shorter, resulting in about the same impacts to public services as the proposed Valley-Ivyglen Project.
- **Recreation:** VIG Alternative C would not result in impacts to recreation, which would be the same as the proposed Valley-Ivyglen Project.

5.2.5 VIG Alternative M – Underground along the Entire Proposed Project Alignment

VIG Alternative M would follow the same alignment as the proposed project, but all segments would be undergrounded. 115-kV Segment VIG8 would be undergrounded as part of the proposed project, so VIG Alternative M would be different from the proposed project for only 115-kV Segments VIG1 through VIG7.

Aesthetics

Construction activities and equipment for VIG Alternative M would be temporarily visible to motorists along I-15 and State Route (SR-74) and from local roadways, similar to the proposed Valley-Ivyglen Project. The additional undergrounding under Alternative M may increase the amount of night work and lighting associated with the project and increase light during construction. Mitigation developed for the proposed project would reduce these impacts to less than significant. Unlike the proposed project, most of VIG Alternative M would not be visible during operation, except for limited surface infrastructure such as vault manholes and transition structures at each end of the project where the line transitions from overhead to underground. This would avoid significant visual quality impacts of the proposed project along 115-kV Segments VIG2 (along SR-74) and VIG5 (along Lake Street). VIG Alternative M would also avoid the additional source of glare from poles and conductor since the line would be undergrounded, which would reduce the impact on motorist views along eligible scenic state highways, visual quality of the proposed project area, and glare. Overall, aesthetic impacts under VIG Alternative M would be substantially reduced as compared to the proposed project.

Air Quality

The highest level of intensity of daily construction activities under VIG Alternative M would be the same as for the proposed project. As shown in Appendix B,¹ the undergrounding activities of the proposed project would create the greatest Peak Daily Emissions. Thus, daily emissions impacts under VIG Alternative M would be the same as the proposed project. Under VIG Alternative M, NO_x and PM_{2.5} emissions would be less than significant with mitigation similar to that developed for the proposed Valley-Ivyglen Project. However, project commitments and mitigation measures would not reduce PM₁₀ emissions to less than significant. Similar to the proposed project, VIG Alternative M would have significant and unavoidable impacts from PM₁₀ emissions. VIG Alternative M would, however, result in increased total emissions over the lifetime of project construction. The most emissions-intensive activities would occur for a longer period of time under VIG Alternative M due to undergrounding 26.4 miles of the VIG Alternative M alignment compared to 1.9 miles for the proposed project. Although VIG Alternative M would result in about 24 percent⁶ less ground disturbance than the proposed project, and helicopters would not be used, the total emissions associated with the aboveground construction activities of the proposed project would be substantially less than undergrounding construction activities associated with VIG Alternative M. The construction timeline would also likely be longer than the aboveground

⁶ This number assumes approximately 478 acres of disturbance, which assumes 26.4 miles of 50-foot-wide trench, 125 vaults, 8.3 miles of 22-foot-wide access roads, and no installation of poles. Otherwise, all disturbance is the same as for the proposed project.

1 construction timeline. The increased construction intensity on more days than the proposed project would
2 result in greater total emissions of criteria pollutants under VIG Alternative M than the proposed project.
3

4 **Biological Resources**

5 VIG Alternative M would require approximately 155 fewer acres of additional ground disturbance than
6 the proposed Valley-Ivyglen Project. The alignment for this alternative is the same as the proposed
7 project; therefore, the same type of species would be affected under this alternative as the proposed
8 project. Though the same alignment would be followed under the proposed project and under VIG
9 Alternative M, it would be more difficult and potentially infeasible to avoid sensitive biological resources
10 under VIG Alternative M when compared to the proposed project. Mitigation for the proposed project
11 requires avoiding sensitive resources as a first line of mitigation, whereas it may be infeasible to avoid
12 sensitive resources under VIG Alternative M due to the nature of trenching. Trenching does not allow for
13 avoidance of resources, while poles could be used for the proposed project to span sensitive resources
14 such as riparian areas. Therefore, the potential to impact a particular sensitive species or habitat is greater
15 under this alternative, despite the 24 percent reduction in ground disturbance. The higher potential may
16 result in greater need for restoration, which would mitigate impacts but is more impactful than the total
17 avoidance that could occur under the proposed project. VIG Alternative M would include more
18 construction in areas that would potentially affect jurisdictional waters. Where the proposed project may
19 span a jurisdictional water or riparian area, trenches would need to be excavated through the waters.
20 Alternatively, VIG Alternative M would reduce potential biological impacts during operation as
21 underground electrical equipment would avoid risk of avian electrocution. Overall, VIG Alternative M's
22 biological resources impacts would be greater than the proposed project due to the potential for more
23 unavoidable impacts to biological resources. Impacts would still be significant but would be reduced to
24 less than significant with the mitigation measures developed for the proposed Valley-Ivyglen Project.
25

26 **Cultural Resources**

27 VIG Alternative M would require approximately 24 percent less ground disturbance than the proposed
28 Valley-Ivyglen Project. However, this significant decrease in disturbance would only somewhat decrease
29 the probability of encountering a significant previously undiscovered cultural resource along the project
30 alignment, given that ground disturbance under this alternative would involve excavation for trenching. In
31 addition, VIG Alternative M would require ground disturbance within the known cultural resource site
32 located along 115-kV Segment VIG1, which is avoided by the proposed Valley-Ivyglen Project. This
33 would result in a significant impact to the cultural resource along 115-kV Segment VIG1. Other resources
34 that would be spanned by the proposed project may be directly impacted via trenching. Impacts to cultural
35 resources under VIG Alternative M would be greater than the proposed project and would be significant
36 because underground avoidance of these resources within the proposed alignment is assumed not to be
37 feasible. Mitigation requiring the subtransmission line to be placed aboveground in order to span these
38 resources would reduce impacts to cultural resources under this alternative to less than significant.
39

40 **Geology, Soils, and Mineral Resources**

41 VIG Alternative M would result in about 24 percent less ground disturbance than the proposed Valley-
42 Ivyglen Project. This would result in a substantial decrease in the potential for erosion and loss of topsoil
43 compared to the proposed project. VIG Alternative M would therefore have substantially smaller impacts
44 to geology and soils compared to the proposed project. Impacts would be significant but could be reduced
45 to less than significant with mitigation similar to that designed for the proposed Valley-Ivyglen Project.
46

47 **Hazards and Hazardous Materials**

48 Construction of VIG Alternative M would utilize the same construction equipment, methods, and
49 materials as the proposed Valley-Ivyglen Project, with the exception of helicopters. The disturbance area

1 under this alternative would be 24 percent smaller than that associated with the proposed project but
2 would involve more excavation. Increased excavation would result in the potential for discovering
3 contaminated soils. The longer construction period may also slightly increase the chance of a spill or
4 accident during the construction period. VIG Alternative M would likely require more blasting sites than
5 the proposed Valley-Ivyglen Project, particularly along 115-kV Segments VIG1 and VIG6, which occur
6 along undeveloped areas. In some places, residences are within 20 feet of the proposed alignment, which
7 means blasting could occur very close to residences. Overall, under Alternative M, hazards and hazardous
8 materials impact would be increased as compared to the proposed project. However, impacts from
9 hazardous materials under VIG Alternative M would be reduced to less than significant with mitigation
10 measures similar to those developed for the proposed Valley-Ivyglen Project.

11 12 **Hydrology and Water Quality**

13 VIG Alternative M would include more construction in areas that would potentially affect jurisdictional
14 waters, as discussed for biological resources. VIG Alternative M would involve about 24 percent less
15 ground disturbance than the proposed Valley-Ivyglen Project. This would result in a substantially lower
16 potential for sedimentation than the proposed project. The potential for drainage alteration impacts would
17 be slightly greater under VIG Alternative M than the proposed project, since more drainages and
18 waterways—including the San Jacinto River—would be crossed rather than spanned. Impacts would be
19 moderately reduced from those associated with the proposed project but still significant for VIG
20 Alternative M. Mitigation similar to that developed for the proposed Valley-Ivyglen Project would reduce
21 these impacts to less than significant.

22 23 **Land Use and Planning**

24 VIG Alternative M would have impacts on land use similar to those described for the proposed Valley-
25 Ivyglen Project. Undergrounding the entire alignment would neither create nor avoid a land use conflict
26 that would result in significant environmental impacts. Impacts would be the same under this alternative
27 as for the proposed project.

28 29 **Noise**

30 Construction of VIG Alternative M would utilize the same construction equipment, methods, and
31 materials as the proposed Valley-Ivyglen Project. VIG Alternative M would require more blasting and
32 trenching. Sensitive receptors would be the same distance from the construction activities as identified for
33 the proposed project. Noise levels associated with trenching activities would be significant and
34 unavoidable in some places, as for the proposed project. Blasting near sensitive receptors would increase
35 noise impacts. Overall, impacts of VIG Alternative M would likely be greater than those of the proposed
36 project, since noise would take place in a linear project area rather than in interstitial areas along the
37 alignment. Thus, sensitive receptors would be exposed to noise for a longer period. Impacts from noise
38 would be reduced with mitigation similar to that developed for the proposed Valley-Ivyglen Project, but
39 not to less than significant.

40 41 **Transportation and Traffic**

42 Traffic patterns and distribution would be the same under VIG Alternative M as for the proposed project,
43 since the same alignment would be used. The construction period would be longer than that of the
44 proposed project, meaning that traffic impacts would last longer. The intensity of construction would
45 likely be about the same as for the proposed project, resulting in the same impacts to LOS. Since
46 trenching would occur in more places along roadways, a substantial amount of additional road and lane
47 closures would be necessary, even though the proposed project would require road closures for stringing
48 across roads and highways. The road closures would increase safety impacts, but these impacts would be

1 reduced to less than significant with the mitigation developed for the proposed project. Overall, VIG
2 Alternative M would result in greater traffic impacts than the proposed Valley-Ivyglen Project.

4 **Other Resource Areas**

- 5 • **Agriculture and Forestry:** VIG Alternative M would impact about 3.9 acres of Farmland of
6 Statewide Importance and about 0.3 acres of Prime Farmland during trenching and would
7 permanently impact about 0.01 acre of Farmland of Statewide Importance. The proposed
8 Valley-Ivyglen Project would impact 2.2 acres of Farmland of Statewide Importance, 0.2 acres
9 of Prime Farmland, and 0.69 acres of Unique Farmland during construction and would
10 permanently disturb 0.05 acres of Prime Farmland and 0.55 acres of Farmland of Statewide
11 Importance. VIG Alternative M would therefore have fewer permanent impacts to farmland than
12 the proposed project.
- 13 • **Greenhouse Gases:** VIG Alternative M would result in a decrease of greenhouse gas emissions
14 due to less helicopter use and equipment use. However, the decrease would be only slight because
15 equipment would be used for longer periods of time in order to excavate deeper than under the
16 proposed project.
- 17 • **Population and Housing:** VIG Alternative M would require the same crew sizes as the proposed
18 Valley-Ivyglen Project for a somewhat longer construction period, so impacts would be slightly
19 greater than those associated with the proposed project.
- 20 • **Public Services and Utilities:** VIG Alternative M would involve about 24 percent less ground
21 disturbance than the proposed Valley-Ivyglen Project, which would reduce the amount of water
22 needed to control fugitive dust. However, the construction period would last somewhat longer,
23 which could slightly increase the potential need for police and fire services. Overall, since the
24 reduction in water is substantial, impacts would be reduced.
- 25 • **Recreation:** VIG Alternative M could slightly increase impacts on recreational facilities, since
26 parts of VIG Alternative M would require trenching in public parks and regional trails, including
27 a community trail near Bundy Canyon Road; the Lake Elsinore Lake, River, Levee Regional
28 Trail; and a regional trail near Temescal Canyon Road. Temporary closures of these areas would
29 be longer than would be needed for construction of the proposed project, but any correlated
30 increase in use of other recreational facilities would be negligible. Overall, VIG Alternative M
31 would result in greater impacts to recreation than the proposed project.

33 **5.2.6 No Project Alternative**

34
35 Under the No Project Alternative, the proposed Valley-Ivyglen Project would not be implemented. The
36 No Project Alternative would avoid the environmental impacts of the proposed Valley-Ivyglen Project
37 discussed in Chapter 4 of the EIR because no construction would occur. The No Project Alternative
38 would, however, potentially impact provision of electricity because the Valley-Elsinore-Fogarty-Ivyglen
39 115-kV Subtransmission Line may exceed designed operating limit. The Electrical Needs Area may
40 experience 115-kV system overloads from the loss of a single 115-kV element.

5.2.7 Valley-Ivyglen Environmentally Superior Alternative

The No Project Alternative (Section 5.2.6) would be environmentally superior for all environmental resources. When the Environmentally Superior Alternative is the No Project Alternative, CEQA requires the identification of an Environmentally Superior Alternative among the other alternatives (CEQA Guidelines § 15126.6). The five alternatives considered were environmentally superior in the following resource areas:

- VIG Alternative A
 - Biological Resources (equally superior with VIG Alternative C)
 - Hazards and Hazardous Materials (equally superior with VIG Alternative C)
 - Hydrology and Water Quality (equally superior with VIG Alternative C)
- VIG Alternative C
 - Biological Resources (equally superior with VIG Alternative A)
 - Cultural Resources
 - Greenhouse Gases
 - Hazards and Hazardous Materials (equally superior with VIG Alternative A)
 - Hydrology and Water Quality (equally superior with VIG Alternative A)
- VIG Alternative M
 - Aesthetics
 - Agriculture and Forestry
 - Geology, Soils, and Mineral Resources
 - Public Services and Utilities

VIG Alternatives B1 and B2 are not environmentally superior for any resources and are therefore not considered for the Environmentally Superior Alternative. No alternative is superior for air quality, land use and planning, noise and vibration, population and housing, recreation, or transportation and traffic.

VIG Alternative M would be environmentally superior for long-term impacts on aesthetics and agriculture and forestry and short-term impacts on geology and soils, and public services and utilities. Short-term impacts on geology and soils, and public services and utilities, are given less weight in selection of an Environmentally Superior Alternative because temporary impacts would not extend beyond the construction period of the project. Furthermore, the temporary impacts on geology and soils, and public services and utilities, are all less than significant or can be mitigated to less than significant. Agriculture impacts of VIG Alternatives A and C would be negligible, meaning that VIG Alternative M's slight reduction of permanent long-term agricultural impacts is not given substantial weight in determination of an environmentally superior alternative. VIG Alternative M would avoid all long-term impacts on visual quality and scenic resources within an eligible scenic highway and elsewhere. These long-term impacts, where significant, can be mitigated to less than significant under VIG Alternatives A and C; therefore, this reduction only carries moderate weight in determining the Environmentally Significant Alternative.

VIG Alternatives A and C would be equally superior regarding short-term impacts on biological resources, hazards and hazardous material, and hydrology and water quality. VIG Alternatives A and C

1 would reduce short-term impacts on biological resources because the alternatives would locate the project
2 in developed areas that would have less potential to impact biological resources, including waterways
3 (e.g., San Jacinto River), during construction. Conservation of biological resources in this area of
4 Riverside County is given considerable weight, since urbanization in the area has resulted in a “significant
5 loss of important biological resources” in Southern California (Riverside County 2003). The Western
6 Riverside County Multiple Species Habitat Conservation Plan (MSHCP) is one of the largest plans
7 created, and there are 347,000 acres of lands set aside as habitat in Riverside County as a result (Riverside
8 County 2003; RCA undated). Therefore, VIG Alternative A and C’s reduction of probability to impact
9 biological resources and hydrology and water quality is given substantial weight in determining the
10 Environmentally Superior Alternative.

11
12 VIG Alternative C would be environmentally superior for short-term impacts on greenhouse gases and
13 long-term impacts on cultural resources. Recent California greenhouse gas policy (Executive Order B-30-
14 15) indicates that California has determined the reduction of greenhouse gases to be an important goal for
15 the state. Conductor installation (i.e., helicopter use), retaining wall work, and road and landing work are
16 the three largest greenhouse gas contributing activities of the proposed project (Appendix B). VIG
17 Alternatives C and M would substantially reduce the amount of helicopter use and access road work
18 However VIG Alternative C would not generate significant greenhouse gas emissions from the one
19 additional mile of undergrounding. Due to the potentially grave impacts of greenhouse gas emissions, as
20 recognized in the state’s latest aggressive policy action to reduce greenhouse gases, VIG Alternative C’s
21 slight reduction in greenhouse gas emissions is given some additional weight in determining the
22 potentially Environmentally Superior Alternative.

23
24 VIG Alternative C would reduce long-term impacts on cultural resources, as ground disturbance would
25 occur within a previously disturbed area with a low probability of encountering a previously undiscovered
26 cultural resource. VIG Alternative M would have the potential to impact known significant cultural
27 resources; however, mitigation could avoid impacts these resources. Additionally, the increased intensity
28 of construction activities under VIG Alternative M would create a higher probability of encountering a
29 sensitive cultural resource or a previously undiscovered resource. VIG Alternative C would reduce long-
30 term impacts on cultural resources in comparison to VIG Alternative M. As a long-term impact to a
31 resource of higher sensitivity, this reduction is given more weight in determining the Environmentally
32 Superior Alternative.

33
34 The substantial short-term benefits of VIG Alternative C on biological resources and hydrology and water
35 quality, in addition to moderate and minor long- and short-term benefits on cultural and greenhouse gases,
36 and reduction of hazards, outweighs the moderate long-term benefits of VIG Alternative M on aesthetics
37 and minor short-term benefits on agriculture, geology and soils, and public services and utilities. VIG
38 Alternative C is found to be the Environmentally Superior Alternative.

39 40 **5.3 Analysis of Alberhill Project Alternatives**

41
42 This section analyzes the advantages and disadvantages of each ASP alternative in comparison to the
43 proposed Alberhill Project. It evaluates whether the ASP alternative would be more or less impactful than
44 the proposed Alberhill Project with respect to resource areas for which a significant impact was identified
45 in Section 4.0, “Environmental Analysis.” Table 5-2 summarizes the analysis and determinations for the
46 Alberhill Project. It ranks each alternative according to its ability to reduce an impact of the proposed
47 project, from environmentally superior (1) to least environmentally superior (3). A ranking is not
48 provided when the impacts of an alternative would be comparable or greater, since that alternative would
49 not be environmentally superior for that resource area.

Table 5-2 Summary of the Alberhill Project Alternatives Analyses and Determination

Resource Area	Proposed Alberhill Project	ASP Alternative B (Rank)	ASP Alternative DD (Rank)	No Project Alternative (Rank)	Environmentally Superior Alternative⁽¹⁾
Aesthetics	Significant and unavoidable	Reduced (3)	Reduced (2)	No Impact (1)	ASP Alternative DD
Agriculture and Forestry	Less than significant	Similar	Similar	No Impact (1)	None
Air Quality	Significant and unavoidable	Similar	Similar	No Impact (1)	None
Biological Resources	Less than significant with mitigation	Reduced (3)	Reduced (2)	No Impact (1)	ASP Alternative DD
Cultural Resources	Less than significant with mitigation	Reduced (2)	Reduced (3)	No Impact (1)	ASP Alternative B
Geology, Soils, and Mineral Resources	Less than significant with mitigation	Reduced (2)	Reduced (3)	No Impact (1)	ASP Alternative B
Greenhouse Gases	Less than significant	Greater	Reduced (2)	No Impact (1)	ASP Alternative DD
Hazards and Hazardous Materials	Less than significant with mitigation	Reduced (2)	Reduced (3)	No Impact (1)	ASP Alternative B
Hydrology and Water Quality	Less than significant with mitigation	Reduced (2)	Reduced (3)	No Impact (1)	ASP Alternative B
Land Use and Planning	Less than significant with mitigation	Similar	Similar	No Impact (1)	None
Noise and Vibration	Significant and unavoidable	Reduced (3)	Reduced (2)	No Impact (1)	ASP Alternative DD
Population and Housing	Less than significant	Similar	Similar	No Impact (1)	None
Public Services and Utilities	Less than significant	Reduced (3)	Reduced (2)	No Impact (1)	ASP Alternative DD
Recreation	Less than significant	Similar	Similar	No Impact (1)	None
Transportation and Traffic	Less than significant with mitigation	Reduced (3)	Reduced (2)	No Impact (1)	ASP Alternative DD

Notes

¹ CEQA Guidelines section 15126.6(e)(2) requires that the lead agency identify an environmentally superior alternative among the other alternatives analyzed in the EIR if the EIR identifies the No Project Alternative as the Environmentally Superior Alternative. Since the No Project Alternative would result in No Impact for all resource areas, it would be the Environmentally Superior Alternative. Therefore, this column identifies the environmentally superior alternative among the other alternatives for each resource area.

Key:

ASP Alberhill System Project
CEQA California Environmental Quality Act
EIR Environmental Impact Report

1
2

1 **5.3.1 ASP Alternative B—All Gas-Insulated Switchgear at Proposed Substation**
2 **Site**

3
4 ASP Alternative B would include construction of a 500/115-kV substation with all gas-insulated
5 switchgear on a 22.2-acre site. The number of 115-kV subtransmission lines, 500-kV transmission lines,
6 and microwave antenna components would be the same as for the proposed Alberhill Project.
7

8 **Aesthetics**

9 The gas-insulated switchgear substation used for ASP Alternative B would require a smaller site than the
10 proposed Alberhill Substation. Structures at the substation would also likely be shorter under this
11 alternative than for the proposed project, somewhat reducing skylining. The slight reduction in skylining,
12 however, would not result in an appreciable difference in visual quality from the proposed project, given
13 that the 500-kV transmission structures and 115-kV subtransmission structures would remain under this
14 alternative and would still result in substantial skylining. The substation would remain visible to motorists
15 traveling along I-15, which is an Eligible Scenic Highway. The current visual sensitivity at the substation
16 site is moderately high. The substation, though reduced in size, as well as the associated transmission and
17 subtransmission lines, would remain visible to drivers on I-15. The substation and transmission and
18 subtransmission lines would still be visually dominant on the parcel that is otherwise mostly open space.
19 The size and scale of these elements would draw viewers' attention from the open space area to the large,
20 human-made industrial structures. The form, line, color, and texture of the view would have a greater
21 contrast. ASP Alternative B would therefore still reduce vividness from moderate to low, intactness from
22 high to moderately low, and unity from moderately high to low at the substation site. Impacts would be
23 only slightly reduced compared to the proposed project. However, even with mitigation developed for the
24 proposed project, impacts would remain significant at the substation site. Impacts elsewhere would
25 remain the same as for the proposed project and, other than the impacts of the 500-kV transmission lines,
26 could be reduced to less than significant with mitigation similar to that developed for the proposed
27 Alberhill Project.
28

29 **Air Quality**

30 As the same general construction activities would occur under ASP Alternative B and the proposed
31 project, ASP Alternative B would have the same level of intensity of daily construction activities as the
32 proposed project. Thus, daily emissions impacts under ASP Alternative B would be the same as the
33 proposed project. Daily pollutant emissions would still be significant, given that the significance
34 threshold is a daily emissions threshold, and the intensity of construction would stay the same under this
35 alternative. ASP Alternative B would have significant impacts on air quality from NO_x, PM₁₀, and PM_{2.5}
36 emissions. Similar to the proposed Alberhill Project, NO_x and PM_{2.5} emissions would be less than
37 significant with the implementation of mitigation similar to that developed for the proposed Alberhill
38 Project. Additionally, impacts from PM₁₀ emissions would remain significant and unavoidable under ASP
39 Alternative B, similar to the proposed Alberhill Project. Under ASP Alternative B, ground disturbance
40 would be about 5.5 percent⁷ less than for the proposed Alberhill Project. Therefore, ASP Alternative B
41 would result in a decrease in total emissions over the lifetime of project construction.
42

43 **Biological Resources**

44 ASP Alternative B would occur within the same disturbance area as the proposed Alberhill Project, with
45 the sole difference being the smaller substation footprint. The substation footprint under ASP Alternative
46 B would be about 22.2 acres instead of a 42.9-acre site, resulting in a disturbance area 20.7 acres smaller
47 than that of the proposed project. This 20.7 acres is located in an area covered by the Riverside County
48 Habitat Conservation Agency Stephens Kangaroo Rat Habitat Conservation Plan and contains MSHCP-

⁷ This number assumes approximately 357 acres of disturbance (see Tables 2-6 and 2-7).

1 designated sensitive soils, and lands designated as critical habitat for California coastal gnatcatcher. The
2 substation site also serves as habitat for other sensitive wildlife species, including Quino checkerspot
3 butterfly, orange-throated whiptail, least Bell’s vireo, Southern California rufous-crowned sparrow,
4 golden eagle, white-tailed kite, and Dulzura kangaroo rat. It is also likely that this alternative would
5 require fewer coast live oak trees to be removed from the substation site. Depending on the configuration
6 of the substation, impacts to Riversidean sage scrub (on the eastern portion of the substation site) and
7 southern willow scrub (on the northern portion of the substation site) at the substation site could
8 potentially be avoided under ASP Alternative B.
9

10 Thus, impacts to these biological resources would be substantially reduced at the substation site under
11 ASP Alternative B. Though substantially reduced, impacts to biological resources under ASP Alternative
12 B would still be significant. Significant impacts could be reduced to less than significant with the
13 implementation of mitigation measures similar to those developed for the proposed Alberhill Project.
14

15 **Cultural Resources**

16 ASP Alternative B would occur within the same environmental setting as the proposed Alberhill Project.
17 The substation under ASP Alternative B would require about 20.7 fewer acres of disturbance than the
18 proposed substation’s 42.9-acre disturbance area, which would slightly reduce the potential of
19 encountering a previously unidentified cultural resource at the substation site. Though reduced, the
20 potential for encountering a cultural resource would still result in a significant impact. Impacts on cultural
21 resources under ASP Alternative B would be reduced to less than significant with the mitigation measures
22 developed for the proposed Alberhill Project.
23

24 **Geology, Soils, and Mineral Resources**

25 ASP Alternative B would occur within the same disturbance area as the proposed Alberhill Project but
26 would require 5.5 percent less ground disturbance than the proposed project. The reduction would be
27 concentrated at the substation site due to the smaller substation footprint. The removal of a contiguous 20-
28 acre area of land from the disturbance area at the substation site would reduce the chance of erosion and
29 topsoil loss in that area. ASP Alternative B would therefore result in a reduced potential for soil erosion
30 and loss of topsoil. Overall impacts to this resource area under ASP Alternative B would be slightly less
31 than for the proposed project but still potentially significant. The significant impacts could be reduced to
32 less than significant with mitigation measures similar to those developed for the proposed project.
33

34 **Greenhouse Gas**

35 Under ASP Alternative B, there would be about a 5.5 percent reduction in ground disturbance compared
36 to the proposed Alberhill Project. Greenhouse gas emissions during construction would be reduced as
37 compared to the proposed project due to reduction in disturbance area, which involves reduced equipment
38 use. However, greenhouse gas impacts related to construction of ASP Alternative B would be less than
39 significant.
40

41 Greenhouse gas emissions during operation would be greater under ASP Alternative B than for the
42 proposed project because this alternative would involve more sulfur hexafluoride (SF₆) as a result of all of
43 the switchracks being gas insulated. Under this alternative, the applicant estimates that an additional
44 13,800 pounds of SF₆ would be required for operation of the substation. Gas-insulated switchgear leak as
45 a matter of normal operation. At an estimated leak rate of 0.1 percent per year (Siemens 2013), ASP
46 Alternative B would result in an additional 149.6 metric tons of carbon dioxide equivalency (MTCO₂e)
47 per year emitted during operation of the substation. Total annual greenhouse gas emissions would be
48 about 3,699 MTCO₂e per year, which would be higher than those associated with the proposed project,
49 but below the significance threshold of 10,000 MTCO₂e per year.
50

1 **Hazards and Hazardous Materials**

2 Overall risk of hazards would be lower under ASP Alternative B than for the proposed Alberhill Project.
3 Under this alternative, ground disturbance would be about 5.5 percent less than that associated with the
4 proposed project, which means that: slightly fewer hazardous materials overall would be used,
5 transported, and disposed of; there would be a slightly smaller chance of an accident; and there would be
6 slightly less potential for encountering contaminated soils at the substation site. Operation of ASP
7 Alternative B would include the use of additional SF₆ but would not result in an appreciable increase of
8 SF₆ exposure risk when compared to the proposed project. Impacts from hazardous materials under ASP
9 Alternative B would be reduced as compared to the project but still potentially significant. Impacts from
10 hazardous materials under ASP Alternative B would be reduced to less than significant with the
11 implementation of mitigation measures similar to those developed for the proposed Alberhill Project.
12

13 **Hydrology and Water Quality**

14 ASP Alternative B would occur within the same disturbance area as the proposed Alberhill Project but
15 would result in 5.5 percent less ground disturbance than the proposed project. The reduction would occur
16 at the substation site due to the smaller substation footprint. Compared to the proposed project, ASP
17 Alternative B would therefore result in a lower potential for sedimentation and hazardous materials spills
18 that could affect water quality at the substation site. Overall impacts related to hydrology and water
19 quality would be reduced under Alternative B as compared to the proposed project due to the reduced
20 ground disturbance; however, impacts would remain potentially significant. Impacts to hydrology and
21 water quality under ASP Alternative B would be reduced to less than significant with the implementation
22 of mitigation measures similar to those developed for the proposed Alberhill Project.
23

24 **Land Use and Planning**

25 ASP Alternative B would have impacts on land use similar to those described for the proposed Alberhill
26 Project. ASP Alternative B's slightly smaller substation than the proposed project's substation, to be
27 located in the same location, would neither create nor avoid any land use conflict. Furthermore, there
28 would be no environmental impacts from any land use conflicts under this alternative.
29

30 **Noise and Vibrations**

31 ASP Alternative B's construction locations would be in potentially the same proximity to sensitive
32 receptors as the proposed Alberhill Project, depending on the location of the ASP Alternative B
33 substation on the site. Thus, peak noise levels for both the alternative and the proposed project would be
34 about the same for sensitive receptors. The smaller substation area would take less time to construct,
35 however, meaning that noise impacts would not last as long as for the proposed project. Overall, impacts
36 would be slightly reduced when compared to the proposed project. Noise impacts from substation
37 construction under ASP Alternative B would therefore be less than significant, as they would be under the
38 proposed project. Impacts from other components of ASP Alternative B would also be the same as for the
39 proposed project and would be significant, and in some cases (e.g., use of helicopters, construction areas
40 located close to receptors) could not be mitigated to less than significant.
41

42 **Transportation and Traffic**

43 The daily level of traffic generated during construction of ASP Alternative B would be about the same as
44 for the proposed project given that the daily intensity of construction would remain the same under this
45 alternative. Impacts to LOS are analyzed for the peak hour. Peak hour traffic generated would be the same
46 for both the alternative and the proposed project and would be distributed across the same roads since
47 ASP Alternative B would be in the same location as the proposed project substation. Thus, impacts to
48 LOS would be the same as for the proposed project. However, the reduced disturbance area indicates that
49 the construction period for ASP Alternative B would be shorter than for the proposed project due to fewer

1 construction activities, which means that the overall traffic generated during construction of ASP
2 Alternative B would be less than that generated by the proposed project. Air traffic impacts would be the
3 same, since this alternative would have the same potential helicopter use as the proposed project. Overall,
4 traffic impacts under ASP Alternative B would be reduced as compared to the proposed project but would
5 remain significant. However, these impacts could be reduced to less than significant with implementation
6 of mitigation measures developed for the proposed project.

7
8 **Other Resource Areas**

- 9
- 10 • **Agriculture and Forestry:** The impacts to farmland and forestry would be the same for both
ASP Alternative B and the proposed Alberhill Project.
 - 11 • **Population and Housing:** Impacts related to population and housing would be negligibly
12 reduced under ASP Alternative B as compared to the proposed Alberhill Project, since the same
13 peak workforce would be needed, but it would be needed for a shorter construction period. It is
14 unlikely that this slight reduction in workforce need would result in a noticeable change in
15 population and housing impacts. Overall, impacts under ASP Alternative B are expected to be the
16 same as for the proposed project.
 - 17 • **Public Services and Utilities:** The shorter construction timeframe required for ASP Alternative
18 B would result in a slightly lower potential for need of police and fire services than for the
19 proposed Alberhill Project, but this reduction would be negligible. Water use for dust control
20 could be about 5.5 percent lower for the alternative than for the proposed project due to the
21 decrease in disturbance area. The overall decrease in water use would be slight. Overall, impacts
22 would be reduced compared to the proposed project.
 - 23 • **Recreation:** Impacts to recreation would be the same under ASP Alternative B as for the
24 proposed Alberhill Project because the alternative substation configuration would not affect
25 recreational facilities.

26
27 **5.3.2 ASP Alternative DD—Serrano Commerce Center Substation Site**

28
29 ASP Alternative DD would include construction of a 500/115-kV substation, similar to the proposed
30 Alberhill Substation, in an area covered by Riverside County Specific Plan No. 353 (see Figure 3-3). The
31 500-kV transmission lines would extend from the substation directly north and tie into the existing
32 Serrano–Valley 500-kV transmission line. 115-kV Segment ASP1 would not be built as proposed. 115-
33 kV Segment ASP1.5 would be expanded to approximately 2 to 4 miles. ASP Alternative DD would
34 involve constructing 115-kV Segment ASP2 aboveground along the path of 115-kV Segments VIG6 and
35 VIG7 instead of crossing I-15. 115-kV Segment ASP2 would be placed below ground with 115-kV
36 Segment VIG8. 115-kV Segment ASP2 would transition to an aboveground power line and would be
37 constructed to follow the planned extension of Temescal Canyon Road, as proposed in Specific Plan No.
38 353, to the Alberhill substation site.

39
40 **Aesthetics**

41 Under ASP Alternative DD, the substation would be mostly shielded from I-15, an Eligible Scenic
42 Highway, due to a higher topographic area between I-15 and the alternative substation site. The 500-kV
43 transmission line near the alternative substation site would be shorter and located near the existing 500-
44 kV Serrano–Valley Transmission Line. One crossing of I-15 near the proposed Alberhill Project’s
45 substation site would be eliminated. Under the proposed project, the visibility of the substation, as well as
46 the 500-kV transmission lines and 115-kV subtransmission lines near the substation, would result in a
47 significant, unavoidable aesthetic impact to I-15. Some of the extended 115-kV subtransmission line of
48 ASP Alternative DD would be visible from I-15, but it would be far enough away from I-15 and would

1 not encroach into the sky, so unlike the proposed project it would not dominate views from I-15.
2 Therefore, ASP Alternative DD would result in substantially fewer aesthetic impacts on I-15 that those
3 associated with the proposed project.
4

5 Under ASP Alternative DD, an additional subtransmission line would need to be installed on Temescal
6 Canyon Road near Indian Truck Trail, so that for about 2,000 feet there would be transmission line on
7 either side of the roadway. There is existing power line infrastructure along this segment of Temescal
8 Canyon Road. The short additional power line infrastructure would only slightly increase aesthetic
9 impacts above those associated with the proposed project.
10

11 Under ASP Alternative DD, a new 185-foot communications tower may need to be installed at Johnstone
12 Peak. There is an existing communications tower at the site, such that any aesthetic impact would be
13 incremental but not rise to the level of significant.
14

15 Other aesthetic impacts of ASP Alternative DD would remain significant under this alternative but could
16 be reduced through the mitigation measures developed for the proposed project.
17

18 Overall, aesthetic impacts under ASP Alternative DD would be reduced as compared to the proposed
19 project.
20

21 **Air Quality**

22 As the same general construction activities would occur under ASP Alternative DD and the proposed
23 project, ASP Alternative DD would have the same level of intensity of daily construction activities as the
24 proposed project. Thus, daily emissions impacts under ASP Alternative DD would be the same as the
25 proposed project. Daily pollutant emissions would still be significant, given that the significance
26 threshold is a daily emissions threshold, and the intensity of construction would stay the same under this
27 alternative. ASP Alternative DD would have significant impacts on air quality from NO_x, PM₁₀, and
28 PM_{2.5} emissions. Similar to the proposed Alberhill Project, NO_x and PM_{2.5} emissions would be less than
29 significant with the implementation of mitigation similar to that developed for the proposed Alberhill
30 Project. Additionally, impacts from PM₁₀ emissions would remain significant and unavoidable under ASP
31 Alternative DD, similar to the proposed Alberhill Project. Under ASP Alternative DD, ground
32 disturbance would be about 8 percent⁸ less than for the proposed Alberhill Project. Helicopter use would
33 be substantially reduced under this alternative, since the 500-kV transmission line would be much shorter
34 than the proposed project's 500-kV transmission line and would be more accessible to vehicles. If a
35 communications tower is constructed at Johnstone Peak Communication Site under ASP Alternative DD,
36 emissions would be greater than emissions associated with the communications work at the Santiago Peak
37 Communications site for the proposed project because ground disturbance would be required in order to
38 construct the communications tower. Therefore, the total criteria pollutant and fugitive dust emissions
39 over the whole construction period of ASP Alternative DD would be substantially decreased when
40 compared to the proposed project.
41

42 **Biological Resources**

43 Construction of ASP Alternative DD would result in substantially fewer impacts on biological resources
44 than the proposed Alberhill Project. The 500-kV transmission lines associated with ASP Alternative DD
45 would avoid work in and near the MSHCP Core Reserve. They would also be shorter and would not
46 require as many access roads, resulting in substantially less disturbance of natural vegetation and potential
47 special-status and common species habitat. This alternative would reduce work occurring in critical

⁸ This number assumes approximately 346 acres of disturbance (substation: 42.9 acres, 500-kV transmission line: 9 acres, and 115-kV: 294 acres).

1 California coastal gnatcatcher habitat, Stephens' kangaroo rat habitat, and areas with MSHCP-designated
2 sensitive soils. This would substantially reduce biological resource impacts from construction of the 500-
3 kV transmission lines as compared to the proposed project.

4
5 The proposed project's substation site also serves as habitat for other sensitive wildlife species, including
6 Quino checkerspot butterfly, orange-throated whiptail, least Bell's vireo, Southern California rufous-
7 crowned sparrow, golden eagle, white-tailed kite, and Dulzura kangaroo rat; construction at the substation
8 site would not occur under this alternative. It is also likely that the alternative would require fewer coast
9 live oak trees to be removed. Impacts to Riversidean sage scrub (on the eastern portion of the substation
10 site) and southern willow scrub (on the northern portion of the substation site) at the substation site would
11 be avoided under ASP Alternative DD. Less of ASP Alternative DD's substation site (and associated 115-
12 kV subtransmission line route) would be located in critical California coastal gnatcatcher habitat. The
13 Alternative DD substation site contains some areas of sensitive habitat, including coastal sage/chaparral
14 scrub, but these areas may be avoidable through substation configuration, as most of the site is disturbed/
15 ruderal vegetation (Riverside County 2010). The ASP Alternative DD substation parcel and vicinity also
16 contains habitat for black-tailed jackrabbit, loggerhead shrike, orange-throated whiptail, western whiptail,
17 yellow warbler, white-tailed kite, and Cooper's hawk (Riverside County 2010). Thus, impacts on
18 sensitive species and vegetation due to substation construction and 115-kV subtransmission line
19 construction under ASP Alternative DD would be about the same as under the proposed project.

20
21 ASP Alternative DD may result in greater impacts to jurisdictional waters and riparian habitat due to
22 more components, including the substation itself, the 500-kV transmission lines, and the extended portion
23 of the 115-kV subtransmission line being built near Temescal Wash. The 500-kV transmission lines
24 would cross Temescal Wash, and the extended 115-kV subtransmission lines would cross a tributary to
25 the wash. Furthermore, bank protection may be needed along the eastern substation boundary to stabilize
26 the bank of Temescal Wash, depending on how close the substation pad is located to the wash, which may
27 cause greater impacts to riparian habitat than the proposed project. It is possible the substation could be
28 set back from the wash far enough to avoid impacts to the wash. Impacts such as the potential for
29 sedimentation would be temporary and occur during construction, while there would be some permanent
30 impacts to waters should bank protection be needed. These impacts would be subject to federal and state
31 permit conditions to reduce impacts to waters, wildlife, and plants. Overall, impacts to biological
32 resources under ASP Alternative DD would be substantially reduced when compared to the proposed
33 Alberhill Project, though potentially significant. Mitigation measures developed for the proposed project
34 would reduce the impacts of ASP Alternative DD to less than significant.

35 **Cultural Resources**

36
37 Some areas where ASP Alternative DD would be located have previously been surveyed for cultural
38 resources, with only one cultural resource present along the 115-kV line alignment (SCE 2011). This
39 cultural resource would likely be avoidable through pole siting; therefore, this alternative is expected to
40 have the same impact as the proposed project on known cultural resources. Overall, there would be about
41 8 percent less land disturbed than the proposed project, but much of this reduced disturbance may not
42 involve extensive cut and fill. ASP Alternative DD would disturb about the same amount of land at the
43 alternative substation site as at the proposed project site, and extensive cut and fill may also be required at
44 ASP Alternative DD's substation site. Therefore, the potential for uncovering undiscovered resources at
45 the substation site is about the same as the proposed project. The area impacted under ASP Alternative
46 DD is of similar tribal sensitivity as other portions of the proposed project. Impacts under Alternative DD
47 would be only slightly reduced as compared to the proposed project and would still be significant.
48 Impacts could be reduced to less than significant with the implementation of mitigation measures
49 developed for the proposed Alberhill Project.

1 **Geology, Soils, and Mineral Resources**

2 ASP Alternative DD would result in 8 percent less ground disturbance than the proposed project. The
3 reduction in ground disturbance would result from the reconfiguration of the 500-kV transmission line.
4 Given that ground disturbance along the proposed 500-kV transmission line is relatively dispersed among
5 the line and access roads, ASP Alternative DD would result in only a slightly reduced potential for
6 erosion and topsoil loss. The 500-kV transmission lines would be located on land with a much less steep
7 grade than under the proposed project, reducing potential risk of landslide damaging project
8 infrastructure. Impacts overall would be slightly reduced for this resource as compared to the proposed
9 project, but still potentially significant under ASP Alternative DD. The significant impacts could be
10 reduced to less than significant with the mitigation measures developed for the proposed project.
11

12 **Greenhouse Gas Emissions**

13 ASP Alternative DD would result in about 8 percent less ground disturbance than the proposed Alberhill
14 Project. Greenhouse gas emissions during construction of ASP Alternative DD would be lower than those
15 associated with the proposed project due to the reduction in disturbance area, which involves less
16 equipment use, as well as less helicopter use for 500-kV transmission line construction. Impacts under
17 this alternative would be less than significant.
18

19 **Hazards and Hazardous Materials**

20 ASP Alternative DD would result in less overall risk of hazards than the proposed project. Under this
21 alternative, ground disturbance would be about 8 percent less than the proposed project, which means
22 that: slightly fewer hazardous materials overall would be used, transported, and disposed of; there would
23 be a slightly lower chance of an accident; and there would be slightly less potential for encountering
24 contaminated soils. Consequences of a hazardous materials spill at ASP Alternative DD's substation site
25 would likely be greater than at the proposed project's substation site given the close proximity of
26 Temescal Wash. Impacts during operation and maintenance of the proposed Alberhill Project would be
27 about the same, since the substation under this alternative would involve the same construction as the
28 proposed project's substation. Impacts from hazardous materials under ASP Alternative DD would be
29 lower than for the proposed project but still potentially significant. Impacts from hazardous materials
30 under ASP Alternative DD would be reduced to less than significant with mitigation measures similar to
31 those developed for the proposed Alberhill Project.
32

33 **Hydrology and Water Quality**

34 ASP Alternative DD would result in 8 percent less ground disturbance than the proposed project. ASP
35 Alternative DD would therefore result in a reduced potential for sedimentation. The lower use of
36 hazardous materials under ASP Alternative DD would result in lower potential for water contamination
37 than the proposed project. Similar to the proposed Alberhill Project, ASP Alternative DD would be
38 constructed near Temescal Wash and tributaries of Temescal Wash. ASP Alternative DD has the potential
39 for greater impacts to Temescal Wash than the proposed project because it would involve siting of more
40 components near Temescal Wash, including the substation itself, the 500-kV transmission lines, and the
41 extended portion of the 115-kV subtransmission line. The 500-kV transmission lines would cross
42 Temescal Wash, and the extended 115-kV subtransmission lines would cross a tributary to the wash.
43 Furthermore, bank protection may be needed along the eastern substation boundary to stabilize the bank
44 of Temescal Wash, which may cause greater impacts to water quality during construction. The ASP
45 Alternative DD substation site is not as level as the proposed project's substation site, meaning that
46 additional grading would be needed. This would result in slightly more drainage and runoff impacts than
47 the proposed project. Overall impacts to hydrology and water quality would be reduced under Alternative
48 DD as compared to the proposed project due to the lower ground disturbance; however, impacts would
49 remain potentially significant. Impacts to hydrology and water quality under ASP Alternative DD would

1 be reduced to less than significant with the implementation of mitigation measures similar to those
2 developed for the proposed Alberhill Project.

3 4 **Land Use and Planning**

5 ASP Alternative DD would be located in the Serrano Commerce Center Specific Plan Area, in an area
6 zoned as light industrial. The presence of the substation in this area may result in additional unanticipated
7 setback requirements that may require other planned projects in the Specific Plan Area to be revised to
8 account for the substation. The Specific Plan Area is currently not developed. If that area were to be
9 developed prior to construction of ASP Alternative DD, significant impacts may result from demolition of
10 buildings in the area. Otherwise, ASP Alternative DD would result in less than significant impacts from
11 conflicts with applicable plans, policies, or regulations, as described for the proposed project.

12 13 **Noise and Vibrations**

14 There is a structure that is potentially a residence located approximately 700 feet north of the substation
15 site and approximately 300 feet from the 500-kV transmission lines under ASP Alternative DD. Noise
16 from substation construction would be about 65 dBA, while noise from transmission line construction
17 would be about 71 dBA. With a significance threshold of 75 dBA, neither impact would be significant,
18 similar to the proposed project's substation construction noise. Helicopter noise at this distance would be
19 significant and unavoidable for receptors in the 500-kV transmission line corridor under Alternative DD,
20 which would not be impacted under the proposed project. Alternative DD would reduce noise impacts to
21 the receptors near the proposed 500-kV transmission line alignment. The overall reduced use of
22 helicopters for 500-kv transmission line construction under Alternative DD, when compared to the
23 proposed project, would result in an overall reduced duration of significant unavoidable helicopter noise
24 impacts when compared to the proposed project.

25
26 For the 115-kV subtransmission line, work would mostly involve stringing conductor on existing poles or
27 pulling conductor through vaults. This would generate minimal noise, except when helicopters are used
28 for stringing operations. For the portion of the 115-kV subtransmission line extending from Temescal
29 Road toward the substation, SCE would need to install poles and conductor. The closest sensitive receptor
30 is a residence about 900 feet from the 115-kV alignment. At this distance, noise from subtransmission
31 line construction would be about 62 dBA, which is under the significance threshold of 75 dBA. Noise
32 impacts would therefore be similar to the proposed project, though in a new location. Impacts from other
33 components would be the same as for the proposed project, would be significant, and in some cases (e.g.,
34 use of helicopters, construction areas located close to receptors) could not be mitigated to less than
35 significant.

36 37 **Transportation and Traffic**

38 The daily level of traffic generated during construction of Alternative DD would be about the same as that
39 generated for the proposed project, given that the daily intensity of construction would stay the same
40 under this alternative. Impacts to LOS are analyzed for the peak hour, and peak hour traffic generated
41 would stay the same as under the proposed project. The traffic generated would be distributed across
42 additional locations due to the new location of the substation, 500-kV transmission lines, and 115-kV
43 transmission lines. Traffic and traffic impacts (such as road closures and road damage) would be
44 distributed further along Temescal Canyon Road, De Palma Road, Indian Truck Trail, and the I-15 on-
45 and off-ramps at Indian Truck Trail. Traffic for soil import would be slightly reduced on roadways
46 between ASP Alternative DD's substation site and the proposed Alberhill substation site, as vehicles
47 would not need to travel as far south. However, the reduced disturbance area indicates that the
48 construction period for ASP Alternative DD would be shorter than for the proposed project due to less
49 construction, which means that the overall traffic generated during construction of ASP Alternative DD
50 would be less than for the proposed project. Helicopter use for the 500-kV transmission line construction

1 would be substantially less than that associated with the proposed project due to the much shorter length
2 of the 500-kV transmission line. This would reduce the potential for air traffic hazards. The shorter length
3 of the 500-kV transmission line would also reduce the potential for air traffic hazards since there would
4 be fewer tall structures built. Traffic impacts under ASP Alternative DD would be reduced as compared
5 to the proposed project but would remain significant. However, these impacts could be reduced to less
6 than significant with implementation of mitigation measures developed for the proposed project.
7

8 **Other Resource Areas**

- 9 • **Agriculture and Forestry:** The impacts to farmland and forestry would be the same for both
10 ASP Alternative DD and the proposed Alberhill Project.
- 11 • **Population and Housing:** Impacts related to population and housing would be negligibly less
12 under ASP Alternative DD than for the proposed Alberhill Project, since the same peak
13 workforce would be needed, but for a shorter construction period. It is unlikely that this slight
14 reduction in workforce would result in a noticeable change in population and housing impacts.
- 15 • **Public Services and Utilities:** The shorter construction timeframe under ASP Alternative DD
16 would result in slightly less potential need for police and fire services than the proposed Alberhill
17 Project. Water use for dust control could be about 8 percent lower under ASP Alternative DD
18 than for the proposed Alberhill Project due to the smaller disturbance area associated with the
19 alternative. Overall, impacts would be reduced when compared to the proposed project.
- 20 • **Recreation:** Impacts to recreation would be the same for both ASP Alternative DD and the
21 proposed project because the alternative substation configuration would not affect recreational
22 facilities.
23

24 **5.3.3 No Project Alternative**

25
26 Under the No Project Alternative, the proposed Alberhill Project would not be implemented. The No
27 Project Alternative would avoid the environmental impacts of the proposed Alberhill Project discussed in
28 Chapter 4 of this EIR because no foreseeable construction would occur. The No Project Alternative could,
29 however, result in impacts related to provision of electricity because there may be overloads on the two
30 560-megavolt-ampere transformers that serve the Valley South 115-kV System as soon as summer 2019.
31

32 **5.3.4 Environmentally Superior Alternative**

33
34 The No Project Alternative (Section 5.3.5) would be environmentally superior for all environmental
35 resources. When the Environmentally Superior Alternative is the No Project Alternative, CEQA requires
36 the identification of an Environmentally Superior Alternative among the other alternatives (CEQA
37 Guidelines § 15126.6). The two alternatives considered were environmentally superior in the following
38 resources:
39

- 40 • ASP Alternative B
 - 41 – Cultural Resources
 - 42 – Geology, Soils, and Mineral Resources
 - 43 – Hazards and Hazardous Materials
 - 44 – Hydrology and Water Quality
- 45 • ASP Alternative DD
 - 46 – Aesthetics

- 1 - Biological Resources
- 2 - Greenhouse Gases
- 3 - Noise and Vibration
- 4 - Public Services and Utilities
- 5 - Transportation and Traffic

6
7 Neither alternative is superior for agriculture and forestry, air quality, land use and planning, population
8 and housing, or recreation.

9
10 Environmental benefits associated with ASP Alternative B over ASP Alternative DD are slight and are
11 associated with long-term impacts on cultural resources and short-term impacts on geology, soils, and
12 mineral resources; hazards and hazardous materials; and hydrology and water quality. Both alternatives
13 would reduce short-term impacts to these resource areas, but ASP Alternative B would result in only a
14 slightly greater reduction in short-term impacts compared to ASP Alternative DD. Reduction in short-
15 term impacts is given less weight because they are temporary and less than significant.

16
17 ASP Alternative DD would be environmentally superior for long-term impacts on aesthetics and
18 biological resources, and greenhouse gases and short-term impacts on noise, public services and utilities,
19 and transportation and traffic. The reduction of short-term impacts is generally given less weight in
20 selection of an Environmentally Superior Alternative because temporary impacts would not extend
21 beyond the construction period of the project. However, the proposed project would have significant
22 impacts from noise during construction, therefore ASP Alternative DD’s reduction of noise impacts are
23 given substantial weight in determining the Environmentally Superior Alternative. The temporary impacts
24 on public services and utilities and transportation and traffic, are all less than significant or can be
25 mitigated to less than significant and are given less weight.

26
27 ASP Alternative DD would be greatly superior to ASP Alternative B in terms of long-term aesthetic
28 impacts. ASP Alternative DD would avoid the significant, unavoidable long-term visual impact of the
29 substation and nearby 500-kV transmission lines and 115-kV subtransmission lines associated with ASP
30 Alternative B. ASP Alternative DD would be mostly shielded from I-15, an Eligible Scenic Highway.
31 Given that the aesthetic impacts of ASP Alternative B would be significant, unavoidable, and long term,
32 ASP Alternative B’s adverse aesthetic impacts are given substantial weight in determining the
33 Environmentally Superior Alternative.

34
35 The long-term biological resources benefits of ASP Alternative DD are associated with reduced long-term
36 impacts to habitat at the proposed Alberhill Substation site. The Western Riverside County MSHCP is
37 one of the largest habitat conservation plans created, and there are 347,000 acres of lands set aside as
38 habitat in Riverside County as a result (Riverside County 2003; RCA undated), indicating the importance
39 of conserving biological resources in Riverside County. ASP Alternative DD would involve no work in or
40 near the MSHCP Core Reserve and would involve slightly less work and disturbance in Stephens’
41 kangaroo rat habitat than ASP Alternative B. The benefits of ASP Alternative DD when compared to ASP
42 Alternative B are slight for biological resources, but the slight benefits of ASP Alternative DD are given
43 considerable weight, since urbanization in the Riverside County has resulted in a “significant loss of
44 important biological resources” in Southern California (Riverside County 2003).

45
46 ASP Alternative B would result in an incremental increase in greenhouse gas emissions compared to ASP
47 Alternative DD—about 149.6 MTCO₂e per year, or 4 percent. Recent California greenhouse gas policy
48 indicates that California has determined the reduction of greenhouse gases to be an important goal for the
49 state. Executive Order B-30-15, signed by the Governor on April 29, 2015, set an aggressive greenhouse

1 gas reductions goal—40 percent below 1990 levels by 2030. The 2030 goal ultimately is an interim
2 benchmark to the 2050 goal of 80 percent below 1990 levels. The Executive Order is only the latest state
3 greenhouse gas reduction policy of many, including the California Global Warming Solutions Act of
4 2006. The Executive Order recognizes several severe, adverse impacts of global warming, including loss
5 of snowpack, drought, increased wildfires, increased smog, and heat waves (State of California 2015).
6 Due to the potentially grave impacts of greenhouse gas emissions, as recognized in the state’s latest
7 aggressive policy action to reduce greenhouse gases, ASP Alternative DD’s decrease in greenhouse gas
8 emissions is given substantial weight in determining the potentially Environmentally Superior
9 Alternative.

10
11 On balance, ASP Alternative DD’s superiority in more resource areas as well as its superiority in key
12 long-term impacts when compared to ASP Alternative B result in a determination that ASP Alternative
13 DD is the Environmentally Superior Alternative.

14 **5.4 References**

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