

Appendix C

**CPUC's CEQA Environmentally
Superior Alternative**

APPENDIX C – CPUC’S CEQA ENVIRONMENTALLY SUPERIOR ALTERNATIVE

C.1 INTRODUCTION

The California Environmental Quality Act (CEQA) Guidelines Section (§)15126.6 requires an Environmental Impact Report (EIR) to consider a range of reasonable alternatives to the proposed project, or to the location of the project, that would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. Because this EIS may be used by the California Public Utilities Commission (CPUC) in lieu of an EIR in determining whether to issue a permit for the Red Bluff Substation, this chapter compares the Red Bluff Substation alternatives evaluated in Chapter 4 of this EIS. In addition, because CEQA § 15378 (a) requires the lead agency to consider the whole of an action, not simply its constituent parts, when determining whether it will have a significant environmental effect (*Citizens Assoc. For Sensible Development of Bishop Area v. County of Inyo* (1985) 172 Cal.App.3d 151), this chapter also compares the effects of the Gen-Tie route alternatives and the Solar Farm Site alternatives, identifies the environmentally superior action alternative, and compares this to the CEQA No Project alternative (No Action alternative, identified as Alternative 4 in Chapter 2, Description of the Proposed Action and Alternatives) as required by CEQA § 15126.6 (e) (1).

C.2 COMPARISON OF ALTERNATIVES

The BLM is required to consider in detail a range of alternatives that are considered “reasonable,” usually defined as alternatives that are realistic (not speculative), technologically and economically feasible, and that respond to the purpose of and need for the Proposed Action. Similarly, CEQA requires a “reasonable range” of alternatives that are feasible and that satisfy most of the project objectives as listed in Section 2.1 but avoid or substantially lessen any of the significant environmental effects of the proposed project. The alternatives carried forward for analysis satisfy requirements under both NEPA and CEQA.

C.2.1 Alternatives Considered in Detail

As described in Section 2.2.2, Overview of Alternatives Considered in Detail, three full action alternatives and three No Action alternatives are fully analyzed in the EIS. Each action alternative contains three main components: Solar Farm Site, Gen-Tie Line, and Substation (Red Bluff Substation). Two Solar Farm Site layout alternatives were considered in detail: Solar Farm Layout B and Solar Farm Layout C. Three Gen-Tie Line alternatives were considered in detail: GT-A-1 and GT-A-2, both of which exit the Solar Farm and go to Substation A, and GT-B-2, which would exit the Solar Farm and go to Substation B. Two substation alternatives were considered in full detail: Substation A (to the east) and Substation B (to the west). Two access road alternatives were considered for Substation A only: Access Road 1 (via Kaiser Road and Aztec Road) and Access Road 2 (via Chuckwalla Valley Road and Corn Springs Road). Supporting facilities for all substation alternatives include a telecommunications site (the Desert Center Telecommunications Site). Alternatives for each project component are compared by environmental discipline in Tables C-1, C-2, -and C-3. In each table, the key environmental disciplines (wildlife, vegetation, visual resources, cultural resources, and water resources) are listed first.

1 **C.2.2 Alternatives Not Carried Forward for Full Analysis**

2 A number of Alternatives were not carried forward for detailed analysis because they did not meet
3 project purpose and need, project objectives, were deemed to be technically disadvantageous, or had
4 greater environmental impacts than the proposed project.

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6 An additional Solar Farm layout was considered within the Project Study Area, identified as Solar
7 Farm A. However, this alternative is located within a larger area of desert tortoise habitat than is the
8 proposed Solar Farm B layout. Because this layout did not provide any advantage over Solar Farm B
9 and would result in greater impacts on the desert tortoise, it was eliminated from consideration.
10 Various other Solar Farm layouts were considered but eliminated, and are discussed in Section 2.6.1,
11 Alternative Layouts in Project Solar Farm Study Area.

12
13 An additional Gen-Tie Line, GT-B-2, was considered for the proposed Project. GT-B-1 would exit the
14 southwest corner of the Solar Farm Site across Kaiser Road, then turn west and southwest until
15 intersecting with Eagle Mountain Road, then running south along the east side of Eagle Mountain
16 Road across I-10 to the western location considered for the Red Bluff Substation (Red Bluff Substation
17 B). The total length of GT-B-1 is approximately 9.3 miles within a 160-foot-wide corridor. This
18 alternative would disturb more acres within the Chuckwalla Desert Wildlife Management Area
19 (DWMA), would require removal of a greater number of foxtail cactus, and has the potential to
20 disturb more significant cultural resources sites than the other Gen-Tie Lines. Since this layout did not
21 provide any advantage over the other Gen-Tie Line that would provide a connection to Red Bluff
22 Substation B and would result in greater impacts on the DWMA and cultural resources, it was
23 eliminated from detailed consideration. Other alternative interconnections were considered and
24 eliminated from detailed environmental review and are described in Section 2.6.7, Alternative
25 Transmission and Interconnection Locations.

26
27 Various other system alternatives and technology alternatives were considered but eliminated from
28 detailed review and are described in Section 2.6.

29 **C.2.3 Summary Comparison of All Alternatives**

30
31 Based on the comparisons presented in Tables C-1, C-2, and C-3 below, the CPUC believes the
32 environmentally superior action alternative under CEQA is a combination of **Substation A** with
33 **Access Road 2**, **Gen-Tie GT-A-2**, and either **Solar Farm B** or **C**. As described in Chapter 2, three full
34 action alternatives, representing three of seven possible combinations of all Solar Farm Site, Gen-Tie,
35 and Substation alternatives that were considered in full detail in the EIS, were analyzed as follows:

- 36 • Alternative 1—Proposed Action Alternative (Solar Farm Layout B, Gen-Tie Line GT-A-1,
37 Red Bluff Substation A, and Access Road 2);
- 38 • Alternative 2—Alternate Action Alternative (Solar Farm Layout B, Gen-Tie Line BT-B-2,
39 and Red Bluff Substation B); and
- 40 • Alternative 3—Reduced Footprint Alternative (Solar Farm Layout C, Gen-Tie Line GT-A-
41 2, Red Bluff Substation A, and Access Road 1).

42
43 The remaining four combinations of project components were not identified nor compared by
44 environmental discipline in Chapter 4. However, the other four combinations are technically feasible.
45 As described in this section, none of the three combinations of alternatives defined in the Project
46 Description (Alternatives 1 through 3) are considered to be the environmentally superior action

1 alternative. In addition, the No Project alternative is not found to be superior, as described in Section
 2 C.2.7. The following sections present details to support these conclusions.

3
 4 **C.2.4 Comparison of Red Bluff Substation Sites**

5 Table C-1 summarizes the impacts of the two substation alternatives, including the two different access
 6 road options for Substation A. This comparison shows that overall, **Substation A with Access Road 2**
 7 would have the fewest adverse impacts on environmental resources and would be environmentally
 8 preferred under CEQA. Substation A with Access Road 1 would be located in an area without active
 9 desert tortoise sign and would affect fewer cultural resources than with Access Road 2. Although
 10 Substation A would affect more CRHR eligible sites than Substation B, as described below for the
 11 Gen-Tie Line alternatives and shown in Table C-2 the combination of Substation A and GT-A-2
 12 would affect fewer CRHR eligible sites than the combination of Substation B and GT-B-2.

13
 14 Another factor considered in the analysis is that cumulative impacts to air resources, visual resources,
 15 cultural resources, and biological resources would be greater with development of Substation B than
 16 with Substation A due to the requirement for an additional approximately 6 miles of transmission gen-
 17 tie line to interconnect the proposed Palen Solar Power Project. This project is sited in close proximity
 18 to Substation A. The Palen Solar Power Project is anticipated to develop a gen-tie along the east-west
 19 portion of Gen-Tie Line GT-A-1; therefore, development of Substation B would likely result in future
 20 development of the east-west portion of GT-A-1. Impacts of Gen-Tie Line alternatives are compared in
 21 Table C-2.

22
 23 **Table C-1**
 24 **Comparison of Action Alternatives: Red Bluff Substation**

Environmental Discipline	Substation A (eastern)		Substation B (western)
	Access Road 1	Access Road 2	
Wildlife	Preferred	Less preferred	Least preferred
	<ul style="list-style-type: none"> • Low desert tortoise sign (no individuals, scat, burrows, or carcasses within or immediately surrounding site). • Impacts to chuckwalla and burro deer individuals and habitat, and potential impacts to rosy boa. • Permanent disturbance of 136 acres of Chuckwalla DWMA and 140 acres of critical habitat for desert tortoise. • Wildlife migration impacts from conversion of 5.9 acres of desert dry wash woodland. • No significant unavoidable impacts. 	<ul style="list-style-type: none"> • Low desert tortoise sign (no individuals, scat, burrows, or carcasses within or immediately surrounding site). • Impacts to chuckwalla and burro deer individuals and habitat, and potential impacts to rosy boa. • Permanent disturbance of 132 acres of Chuckwalla DWMA and 140 acres of critical habitat for desert tortoise. • Wildlife migration impacts from conversion 7.1 acres of desert dry wash woodland. 	<ul style="list-style-type: none"> • High desert tortoise sign (one individual, one carcass, and scat within the site, large amount of scat immediately surrounding site). • No impacts to chuckwalla, burro deer, or rosy boa. Impacts to burrowing owl individuals and habitat. • Permanent disturbance of 114 acres of critical habitat. No impacts to Chuckwalla DWMA (private land). • Wildlife migration impacts from conversion of 10.8 acres

Environmental Discipline	Substation A (eastern)		Substation B (western)
	Access Road 1	Access Road 2	
Vegetation	<p>Roughly equivalent</p> <ul style="list-style-type: none"> Permanent conversion of creosote desert scrub (135.4 ac) and desert dry wash woodland (5.9 ac). Removal of foxtail cactus (5 acres), 2 Las Animas colubrinae, and 4 California ditaxis. Permanent loss of 8.6 acres of CDFG jurisdictional resources. No significant unavoidable impacts. 	<ul style="list-style-type: none"> No significant unavoidable impacts. <p>Roughly equivalent</p> <ul style="list-style-type: none"> Permanent conversion of 143.5 acres of desert creosote scrub (143.5 ac) and desert dry wash woodland (7.1 ac). Removal of several foxtail cactus (4 acres), 2 Las Animas colubrinae, and 4 California ditaxis. Permanent loss of 7.1 acres of CDFG jurisdictional resources. No significant unavoidable impacts. 	<p>of desert dry wash woodland.</p> <ul style="list-style-type: none"> No significant unavoidable impacts. <p>Roughly equivalent</p> <ul style="list-style-type: none"> Permanent conversion of desert creosote scrub (102.2 acres) and desert dry wash woodland (10.8 ac). Removal of foxtail cactus (3 acres), and several California ditaxis. Permanent loss of 18.5 acres of CDFG jurisdictional resources. No significant unavoidable impacts.
Cultural Resources	<p>Least preferred</p> <ul style="list-style-type: none"> Most CRHR eligible and potentially eligible sites impacted (1 eligible, 3 potentially eligible, the North Chuckwalla Petroglyph District, the North Chuckwalla Mountains Quarry District, and the landscape and area of the potential DTC-CAMA historic district). Additional impacts to 18 other archeological resources. Impacts would be significant and unavoidable. 	<p>Less Preferred</p> <ul style="list-style-type: none"> Fewer CRHR eligible sites impacted than for Access Road 1 (1 eligible, 4 potentially eligible, the North Chuckwalla Petroglyph District, the North Chuckwalla Mountains Quarry District, and the landscape and area of the potential DTC-CAMA historic district). Additional impacts to 20 other archeological resources. Impacts would be significant and unavoidable. 	<p>Preferred</p> <ul style="list-style-type: none"> Fewer CRHR eligible sites impacted than for Substation A (2 potentially eligible, the North Chuckwalla Petroglyph District, the North Chuckwalla Mountains Quarry District, and the landscape and area of the potential DTC-CAMA historic district). Additional impacts to 5 other archeological resources. Impacts would be significant and unavoidable.
Visual Resources	<p>Roughly equivalent</p> <ul style="list-style-type: none"> Substation A with Access Road 1 would have a smaller permanent impact than Substation A with Access Road 2, but a larger impact than Substation B. Significant and unavoidable impacts. 	<p>Roughly equivalent</p> <ul style="list-style-type: none"> Substation A with Access Road 2 would have the largest visual impact of the three alternatives. Significant and unavoidable impacts. 	<p>Roughly equivalent</p> <ul style="list-style-type: none"> Substation B would have the smallest permanent visual impact of the three alternatives. Significant and unavoidable impacts.

Environmental Discipline	Substation A (eastern)		Substation B (western)
	Access Road 1	Access Road 2	
Water Resources	<p>Less preferred</p> <ul style="list-style-type: none"> Alteration of three drainages to prevent flooding requiring greater disturbance than Substation B. Access Road 1 would be less likely to be subjected to flooding. No significant unavoidable effects. 	<p>Least preferred</p> <ul style="list-style-type: none"> Alteration of three drainages to prevent flooding requiring greater disturbance than Substation B. Access Road 2 requires improvements to prevent damage from flooding. No significant unavoidable effects. 	<p>Preferred</p> <ul style="list-style-type: none"> Alteration of one drainage to prevent flooding requiring lesser disturbance than Substation A. No significant unavoidable effects.
Air Resources	<p>Less preferred</p> <ul style="list-style-type: none"> More construction emissions than Substation B, equivalent to Access road 2. No significant unavoidable impacts. 	<p>Less preferred</p> <ul style="list-style-type: none"> More construction emissions than Substation B, equivalent to Access road 1. No significant unavoidable impacts. 	<p>Preferred</p> <ul style="list-style-type: none"> Fewest construction emissions because of a substantially shorter new access road. No significant unavoidable impacts.
Climate Change	<p>Less preferred</p> <ul style="list-style-type: none"> Equivalent greenhouse gas emissions to Access Road 2, greater emissions than Substation B. No significant unavoidable impacts. 	<p>Less preferred</p> <ul style="list-style-type: none"> Equivalent greenhouse gas emissions to Access Road 1, greater emissions than Substation B. No significant unavoidable impacts. 	<p>Preferred</p> <ul style="list-style-type: none"> Fewer greenhouse gas emissions than Substation A because of a substantially shorter new access road. No significant unavoidable impacts.
Paleontological Resources	<p>Equivalent</p> <ul style="list-style-type: none"> Low potential for direct and indirect impacts to resources. 	<p>Equivalent</p> <ul style="list-style-type: none"> Low potential for direct and indirect impacts to resources. 	<p>Equivalent</p> <ul style="list-style-type: none"> Low potential for direct and indirect impacts to resources.
Geology and Soil Resources	<p>Equivalent</p> <ul style="list-style-type: none"> Exposure of people and/or property to seismic hazards and increased erosion of soils from wind and water. No significant unavoidable impacts. 	<p>Equivalent</p> <ul style="list-style-type: none"> Exposure of people and/or property to seismic hazards and increased erosion of soils from wind and water. No significant unavoidable impacts. 	<p>Equivalent</p> <ul style="list-style-type: none"> Exposure of people and/or property to seismic hazards and increased erosion of soils from wind and water. No significant unavoidable impacts.
Lands and Realty	<p>Equivalent</p> <ul style="list-style-type: none"> Substation would be built on multiple-use BLM land. 	<p>Equivalent</p> <ul style="list-style-type: none"> Substation would be built on multiple-use BLM land. 	<p>Equivalent</p> <ul style="list-style-type: none"> Substation B would be built on currently undeveloped private land zoned W-2-10 (Controlled Development); there are no existing or known planned uses of

Environmental Discipline	Substation A (eastern)		Substation B (western)
	Access Road 1	Access Road 2	
Noise	Equivalent <ul style="list-style-type: none"> No nearby residences. 	Equivalent <ul style="list-style-type: none"> No nearby residences. 	Equivalent <ul style="list-style-type: none"> No nearby residences. this land.
Public Health and Safety/ Hazardous Materials	Equivalent <ul style="list-style-type: none"> Safety hazard from the proximity of the communications tower to a private air strip. No significant unavoidable impacts. 	Equivalent <ul style="list-style-type: none"> Safety hazard from the proximity of the communications tower to a private air strip. No significant unavoidable impacts. 	Equivalent <ul style="list-style-type: none"> Safety hazard from the proximity of the communications tower to a private air strip. No significant unavoidable impacts.
Recreation	Equivalent <ul style="list-style-type: none"> No impact because no OHV routes would be affected. 	Equivalent <ul style="list-style-type: none"> No impact because no OHV routes would be affected. 	Equivalent <ul style="list-style-type: none"> No impact because no OHV routes would be affected.
Socioeconomics and Environmental Justice	Equivalent <ul style="list-style-type: none"> No impacts. 	Equivalent <ul style="list-style-type: none"> No impacts. 	Equivalent <ul style="list-style-type: none"> No impacts.
Special Designations	Less preferred <ul style="list-style-type: none"> Indirect impacts to an ACEC and the Chuckwalla Mountains Wilderness. 	Less preferred <ul style="list-style-type: none"> Indirect impacts to an ACEC and the Chuckwalla Mountains Wilderness. 	Preferred <ul style="list-style-type: none"> No impacts expected.
Transportation and Public Access	Equivalent <ul style="list-style-type: none"> Impacts to traffic closure and road deterioration would be similar among all alternatives. 	Equivalent <ul style="list-style-type: none"> Impacts to traffic closure and road deterioration would be similar among all alternatives. 	Equivalent <ul style="list-style-type: none"> Impacts to traffic closure and road deterioration would be similar among all alternatives.

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2 **C.2.5 Comparison of Gen-Tie Routes**

3 Table C-2 presents a comparison of the three gen-tie routes. **Gen-Tie Line GT-A-2** would have the
 4 potential to affect the least desert tortoise individuals and habitat. In addition, GT-A-2 would have the
 5 fewest noise-related impacts and the smallest visual impact due to its collocation with an existing
 6 transmission line. Although GT-A-2 would affect the most water resources by requiring 30 percent
 7 more water for construction, these impacts would be less than significant with required mitigation.
 8 Therefore, GT-A-2 would be the environmentally superior gen-tie alternative under CEQA. In
 9 addition, although Substation A would affect the largest number of CRHR eligible sites as described
 10 above and in Table C-1, the combination of Substation A and GT-A-2 would affect fewer known
 11 CRHR eligible sites than the combination of Substation B and GT-B-2; however, full-coverage surveys
 12 for the GT-A-2 corridor were not possible due to access constraints, and additional cultural resources
 13 are likely to exist and could be affected by construction of GT-A-2.

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15 As described above for Substation B, cumulative impacts of developing GT-B-2 would likely also
 16 include the impacts of development of the east-west portion of GT-A-1 to interconnect the Palen Solar

1 Power Project, including air, cultural, visual, and biological resources impacts. Therefore, GT-B-2
 2 would be the least environmentally preferred Gen-Tie alternative.
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4 **Table C-2**
 5 **Comparison of Action Alternatives: Gen-Tie Line**

Environmental Discipline	GT-A-1 (Kaiser Rd to Desert Center, then east: 12.2 mi.)	GT-A-2 (SCE ROW to Substation A: 9.5 mi.)	GT-B-2 (Kaiser Rd to Desert Center, then west: 10 mi.)
Wildlife	Less preferred <ul style="list-style-type: none"> • Disturbance of 32.2 acres of desert tortoise critical habitat (9.4 acres of permanent conversion). • Disturbance of 34.8 acres of DWMA (2.8 acres of permanent conversion). • No significant unavoidable impacts. 	Preferred <ul style="list-style-type: none"> • Disturbance of 5 acres of desert tortoise critical habitat (1.5 acres of permanent conversion). • Disturbance of 5.4 acres of DWMA (0.5 acres of permanent conversion). • No significant unavoidable impacts. 	Least preferred <ul style="list-style-type: none"> • Disturbance of 28.5 acres of desert tortoise critical habitat (5.5 acres of permanent conversion). • Disturbance of 55.6 acres of DWMA (7.9 acres of permanent conversion). • No significant unavoidable impacts.
Vegetation	Roughly equivalent <ul style="list-style-type: none"> • Permanent conversion of 8.7 acres of desert creosote scrub. • Permanent conversion of 8.1 acres of desert dry wash woodland. • Removal of 2 crucifixion thorns, 1 California ditaxis, and 4 desert unicorn plants. • Permanent removal of 14.5 acres of CDFG jurisdictional resources. • No significant unavoidable impacts. 	Roughly equivalent <ul style="list-style-type: none"> • Permanent conversion of 5.1 acres of desert creosote scrub. • Permanent conversion of 9.1 acres of desert dry wash woodland. • Removal of several crucifixion thorns and 1 desert unicorn plant. • Permanent removal of 9.2 acres of CDFG jurisdictional resources. • No significant unavoidable impacts. 	Roughly equivalent <ul style="list-style-type: none"> • Permanent conversion of 1.3 acres of desert creosote scrub. • Permanent conversion of 9.5 acres of desert dry wash woodland. • Removal of 2 crucifixion thorns, several California ditaxis, and 1 desert unicorn plant. • Permanent removal of 10.2 acres of CDFG jurisdictional resources. • No significant unavoidable impacts.

Environmental Discipline	GT-A-1 (Kaiser Rd to Desert Center, then east: 12.2 mi.)	GT-A-2 (SCE ROW to Substation A: 9.5 mi.)	GT-B-2 (Kaiser Rd to Desert Center, then west: 10 mi.)
Cultural Resources	<p>Less preferred</p> <ul style="list-style-type: none"> • Greatest number of CRHR eligible and potentially eligible sites impacted (6 potentially eligible). • Impacts to historic landscapes of the Colorado River Aqueduct, the North Chuckwalla Petroglyph District, the North Chuckwalla Mountains Quarry District, and the landscape and area of the potential DTC-CAMA historic district). • Impacts to 13 additional archeological resources. • Impacts would be significant and unavoidable. 	<p>Cannot be compared</p> <ul style="list-style-type: none"> • Fewest number of known CRHR eligible and potentially eligible sites impacted (2 potentially eligible). • Impacts to historic landscapes of the Colorado River Aqueduct, the North Chuckwalla Petroglyph District, the North Chuckwalla Mountains Quarry District, and the landscape and area of the potential DTC-CAMA historic district). • Impacts to 2 additional archeological resources. • Surveys were incomplete for this corridor, and additional resources likely exist, and therefore this alternative cannot be compared to the alternatives with full-coverage surveys. • Impacts would be significant and unavoidable. 	<p>More preferred</p> <ul style="list-style-type: none"> • Greatest number of CRHR eligible and potentially eligible sites as GT-A-1 (6 potentially eligible). • Impacts to historic landscapes of the Colorado River Aqueduct, the North Chuckwalla Petroglyph District, the North Chuckwalla Mountains Quarry District, and the landscape and area of the potential DTC-CAMA historic district). • Impacts to 17 additional archeological resources. • Impacts would be significant and unavoidable.
Air Resources	<p>Roughly equivalent</p> <ul style="list-style-type: none"> • Emissions from stationary and mobile construction activities. • No significant unavoidable impacts. 	<p>Roughly equivalent</p> <ul style="list-style-type: none"> • Emissions from stationary and mobile construction activities. • No significant unavoidable impacts. 	<p>Roughly equivalent</p> <ul style="list-style-type: none"> • Emissions from stationary and mobile construction activities. • No significant unavoidable impacts.
Climate Change	<p>Least preferred</p> <ul style="list-style-type: none"> • Most greenhouse gas emissions associated with construction. • Equivalent greenhouse gas emissions from operations. • No significant unavoidable impacts. 	<p>Preferred</p> <ul style="list-style-type: none"> • Fewest greenhouse gas emissions associated with construction. • Equivalent greenhouse gas emissions from operations. • No significant unavoidable impacts. 	<p>Less preferred</p> <ul style="list-style-type: none"> • Greater greenhouse gas emissions associated with construction than GT-A-2. • Equivalent greenhouse gas emissions from operations. • No significant unavoidable impacts.

Environmental Discipline	GT-A-1 (Kaiser Rd to Desert Center, then east: 12.2 mi.)	GT-A-2 (SCE ROW to Substation A: 9.5 mi.)	GT-B-2 (Kaiser Rd to Desert Center, then west: 10 mi.)
Visual Resources	<p>Less preferred</p> <ul style="list-style-type: none"> • Would require a new transmission corridor; impacts roughly equivalent to GT-B-2. • Impacts would be significant and unavoidable. 	<p>Preferred</p> <ul style="list-style-type: none"> • Would be collocated with an existing transmission line for the majority of its length. • Impacts would be significant and unavoidable. 	<p>Less preferred</p> <ul style="list-style-type: none"> • Would require a new transmission corridor; impacts roughly equivalent to GT-A-1. • Impacts would be significant and unavoidable.
Water Resources	<p>Less preferred</p> <ul style="list-style-type: none"> • Requires more water during construction than GT-B-2, but less water than GT-A-1. • No significant unavoidable impacts. 	<p>Least preferred</p> <ul style="list-style-type: none"> • Requires approximately 30 percent more water for construction than GT-A-1 despite being 3 miles shorter. • No significant unavoidable impacts. 	<p>Preferred</p> <ul style="list-style-type: none"> • Impacts would be the same or less than GT-A-1 due to the shorter length of GT-B-2 and lower water requirements for construction. • No significant unavoidable impacts.
Paleontological Resources	<p>Equivalent</p> <ul style="list-style-type: none"> • Low potential for direct and indirect impacts to resources. 	<p>Equivalent</p> <ul style="list-style-type: none"> • Low potential for direct and indirect impacts to resources. 	<p>Equivalent</p> <ul style="list-style-type: none"> • Low potential for direct and indirect impacts to resources.
Geology and Soil Resources	<p>Equivalent</p> <ul style="list-style-type: none"> • Exposure of people and/or property to seismic hazards and increased erosion of soils from wind and water. • No significant unavoidable impacts. 	<p>Equivalent</p> <ul style="list-style-type: none"> • Exposure of people and/or property to seismic hazards and increased erosion of soils from wind and water. • No significant unavoidable impacts. 	<p>Equivalent</p> <ul style="list-style-type: none"> • Exposure of people and/or property to seismic hazards and increased erosion of soils from wind and water. • No significant unavoidable impacts.

Environmental Discipline	GT-A-1 (Kaiser Rd to Desert Center, then east: 12.2 mi.)	GT-A-2 (SCE ROW to Substation A: 9.5 mi.)	GT-B-2 (Kaiser Rd to Desert Center, then west: 10 mi.)
Lands and Realty	<p>Roughly equivalent</p> <ul style="list-style-type: none"> • Temporary impacts at roadway crossings. • Would traverse one private parcel designated by the County’s General Plan as Open-Space Rural (OS-RUR) and zoned Natural Assets (N-A). • No agricultural land impacted. • No significant unavoidable impacts. 	<p>Roughly equivalent</p> <ul style="list-style-type: none"> • Temporary impacts at roadway crossings. • Would cross SR 177, which is under the jurisdiction of Caltrans. • Would cross approximately 1.5 miles of private agricultural land. • Would permanently preclude cultivation of 185 acres of currently cultivated non-prime land that is not under Williamson Act Contract. • No significant unavoidable impacts. 	<p>Roughly equivalent</p> <ul style="list-style-type: none"> • Temporary impacts at roadway crossings. • Majority of line not within a designated utility corridor. • No agricultural land impacted. • No significant unavoidable impacts.
Noise	<p>Less preferred</p> <ul style="list-style-type: none"> • Closest existing residence is 500 feet. Equivalent to GT-B-2 • No significant unavoidable impacts. 	<p>Preferred</p> <ul style="list-style-type: none"> • No nearby residences • No significant unavoidable impacts. 	<p>Less preferred</p> <ul style="list-style-type: none"> • Closest existing residence is 500 feet. Equivalent to GT-A-1. • No significant unavoidable impacts.
Public Health and Safety/Hazardous Materials	<p>Equivalent</p> <ul style="list-style-type: none"> • All three alternatives are subject to the same safety and hazards issues. • No significant unavoidable impacts. 	<p>Equivalent</p> <ul style="list-style-type: none"> • All three alternatives are subject to the same safety and hazards issues. • No significant unavoidable impacts. 	<p>Equivalent</p> <ul style="list-style-type: none"> • All three alternatives are subject to the same safety and hazards issues. • No significant unavoidable impacts.
Recreation	<p>Equivalent</p> <p>No impact.</p>	<p>Equivalent</p> <p>No impact.</p>	<p>Equivalent</p> <p>No impact.</p>
Socioeconomics and Environmental Justice	<p>Equivalent</p> <ul style="list-style-type: none"> • Impacts would be the same for all alternatives. • No significant unavoidable impacts. 	<p>Equivalent</p> <ul style="list-style-type: none"> • Impacts would be the same for all alternatives. • No significant unavoidable impacts. 	<p>Equivalent</p> <ul style="list-style-type: none"> • Impacts would be the same for all alternatives. • No significant unavoidable impacts.
Special Designations	<p>Equivalent</p> <ul style="list-style-type: none"> • No impacts. 	<p>Equivalent</p> <ul style="list-style-type: none"> • No impacts. 	<p>Equivalent</p> <ul style="list-style-type: none"> • No impacts.

Environmental Discipline	GT-A-1 (Kaiser Rd to Desert Center, then east: 12.2 mi.)	GT-A-2 (SCE ROW to Substation A: 9.5 mi.)	GT-B-2 (Kaiser Rd to Desert Center, then west: 10 mi.)
Transportation and Public Access	<p>Roughly equivalent</p> <ul style="list-style-type: none"> • Impacts to traffic closure and road deterioration would be similar among all alternatives. • No significant unavoidable impacts. 	<p>Roughly equivalent</p> <ul style="list-style-type: none"> • Impacts to traffic closure and road deterioration would be similar among all alternatives, but GT-A-2's proximity to a former airport would require coordination with airport owners prior to construction. • No significant unavoidable impacts. 	<p>Roughly equivalent</p> <ul style="list-style-type: none"> • Impacts to traffic closure and road deterioration would be similar among all alternatives. • No significant unavoidable impacts.

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C.2.6 Comparison of Solar Farm Layout Alternatives

Table C-3 presents a comparison of the two solar farm layouts. Based on the comparison presented in Table C-3, Solar Farm Layout C would have the fewest short-term impacts to environmental resources overall, including the fewest significant and unavoidable impacts on cultural resources and air quality, and significant but mitigable impacts to special-status species. However, Solar Farm Layout B would have fewer long-term indirect environmental impacts through greenhouse gas emission offsets, which would avoid indirect physical impacts to environmental resources both locally and globally, e.g., local reduction in habitat for special status plants and wildlife through increased temperatures and drought conditions and encroachment by invasive plants in the Mojave Desert, and global loss of habitat through desertification of non-desert ecosystems. These short-term and long-term environmental impacts are difficult to compare. Therefore, Solar Farm Layouts B and C are considered to be environmentally equal.

**Table C-3
Comparison of Action Alternatives: Solar Farm Site**

Environmental Discipline	Solar Farm Layout B (4,245 acres)	Solar Farm Layout C (3,045 acres)
Wildlife	<p>Less preferred</p> <ul style="list-style-type: none"> • Greater habitat impacts; impacts to occupied habitat. • Greater impacts to special-status species, including desert tortoise. • No significant unavoidable impacts. 	<p>Preferred</p> <ul style="list-style-type: none"> • Fewer habitat impacts; would avoid most occupied habitat. • Fewer impacts to special-status species; would avoid the areas of high desert tortoise sign. • No significant unavoidable impacts.
Vegetation	<p>Less preferred</p> <ul style="list-style-type: none"> • Greater total acreage of impacts to vegetation. • No significant unavoidable impacts. 	<p>Preferred</p> <ul style="list-style-type: none"> • Fewer acres with impacts to vegetation. • No significant unavoidable impacts.

Environmental Discipline	Solar Farm Layout B (4,245 acres)	Solar Farm Layout C (3,045 acres)
Cultural Resources	<p>Less preferred</p> <ul style="list-style-type: none"> • Would directly impact more culturally sensitive sites. • Impacts would be significant and unavoidable. 	<p>Preferred</p> <ul style="list-style-type: none"> • Would directly impact fewer culturally sensitive sites. • Impacts would be significant and unavoidable.
Visual Resources	<p>Roughly equivalent</p> <ul style="list-style-type: none"> • Marginally greater long-term impact on visual resources. • Impacts would be significant and unavoidable. 	<p>Roughly equivalent</p> <ul style="list-style-type: none"> • Marginally smaller long-term impact on visual resources. • Impacts would be significant and unavoidable.
Water Resources	<p>Equivalent</p> <ul style="list-style-type: none"> • Marginally greater use of groundwater. • No depletion of groundwater supply in the basin. • No significant unavoidable impacts. 	<p>Equivalent</p> <ul style="list-style-type: none"> • Marginally less use of groundwater. • No depletion of groundwater supply in the basin. • No significant unavoidable impacts.
Air Resources	<p>Less preferred</p> <ul style="list-style-type: none"> • More ground disturbance. Greater emissions from construction activity • Impacts would be significant and unavoidable. 	<p>Preferred</p> <ul style="list-style-type: none"> • Less ground disturbance • Fewer emissions from construction activity • Impacts would be significant and unavoidable.
Climate Change	<p>Preferred</p> <ul style="list-style-type: none"> • Greater total avoided greenhouse gas emissions per year. 	<p>Less preferred</p> <ul style="list-style-type: none"> • Fewer beneficial impacts because of smaller generating capacity.
Paleontological Resources	<p>Equivalent</p> <ul style="list-style-type: none"> • Low potential for direct and indirect impacts to resources. 	<p>Equivalent</p> <ul style="list-style-type: none"> • Low potential for direct and indirect impacts to resources.
Geology and Soil Resources	<p>Equivalent</p> <ul style="list-style-type: none"> • Exposure of people and/or property to seismic hazards and increased erosion of soils from wind and water. • No significant unavoidable impacts. 	<p>Equivalent</p> <ul style="list-style-type: none"> • Exposure of people and/or property to seismic hazards and increased erosion of soils from wind and water. • No significant unavoidable impacts.
Lands and Realty	<p>Less preferred</p> <ul style="list-style-type: none"> • Portions of Kaiser Steel Road and two OHV routes would be closed. • A transmission line and FERC easement could require modification. • No significant unavoidable impacts. 	<p>Preferred</p> <ul style="list-style-type: none"> • No road closures. • A FERC easement could require modification. • No significant unavoidable impacts.
Noise	<p>Equivalent</p> <ul style="list-style-type: none"> • Distance to closest existing residence is 1,175 acres. • No significant unavoidable impacts. 	<p>Equivalent</p> <ul style="list-style-type: none"> • Distance to closest existing residence is 1,175 acres. • No significant unavoidable impacts.
Public Health and Safety/ Hazardous Materials	<p>Equivalent</p> <ul style="list-style-type: none"> • Both solar farm sites are subject to the same safety and hazards issues. • No significant unavoidable impacts. 	<p>Equivalent</p> <ul style="list-style-type: none"> • Both solar farm sites are subject to the same safety and hazards issues. • No significant unavoidable impacts.

Environmental Discipline	Solar Farm Layout B (4,245 acres)	Solar Farm Layout C (3,045 acres)
Recreation	Less preferred <ul style="list-style-type: none"> • Temporary closure of three OHV routes. • No significant unavoidable impacts. 	Preferred <ul style="list-style-type: none"> • No OHV route closures.
Socioeconomics and Environmental Justice Special Designations	Equivalent <ul style="list-style-type: none"> • Impacts would be the same for both alternatives. • No significant unavoidable impacts. Less preferred <ul style="list-style-type: none"> • Within two miles of the Joshua Tree Wilderness Area. • Fugitive dust from construction would create a temporary visual distraction for users of this wilderness. • No significant unavoidable impacts. 	Equivalent <ul style="list-style-type: none"> • Impacts would be the same for both alternatives. • No significant unavoidable impacts. Preferred <ul style="list-style-type: none"> • Within two miles of the Joshua Tree Wilderness Area. • Fugitive dust from construction would create a temporary visual distraction for users of this wilderness. • Indirect impacts are marginally reduced due to the smaller footprint. • No significant unavoidable impacts.
Transportation and Public Access	Equivalent <ul style="list-style-type: none"> • Marginally more road closures and road deterioration due to more intensive construction. • Duration of construction would be equivalent. • No significant unavoidable impacts. 	Equivalent <ul style="list-style-type: none"> • Marginally fewer road closures and marginally less road deterioration due to less intensive construction. • Duration of construction would be equivalent. • No significant unavoidable impacts.

1

2 **C.2.7 Comparison of Environmentally Superior Action Alternative to No Project**
3 **Alternative**

4 Also as described in Chapter 2, three No Action alternatives were considered as follows:

5

- 6 • Alternative 4—No Issuance of a Right-of-Way Grant and No Land Use Plan Amendment (No
- 7 Action);
- 8 • Alternative 5—No Issuance of a Right-of-Way Grant with Land Use Plan Amendment to
- 9 Exclude Solar Energy Development on the Site (No Action with Plan Amendment); and
- 10 • Alternative 6—No Issuance of a Right-of-Way Grant with Land Use Plan Amendment to Allow
- 11 Solar Development on the Site (No Action with Plan Amendment).

12

13 With Alternative 4, none of the project components (Solar Farm, Gen-Tie Line, and Substation) would
14 be built. This alternative is equivalent to the No Project Alternative under CEQA. The No Project
15 alternative (Alternative 4) would not amend the California Desert Conservation Act Land Use Plan to
16 allow or disallow renewable energy projects in this area; therefore, future development of renewable
17 energy in this area cannot be precluded under this alternative. In addition, because of California’s
18 mandate for energy utilities to procure 33 percent of their energy from renewable sources by the year
19 2020, it is reasonable to assume that under the No Project alternative, other renewable energy projects
20 would be developed in other locations in Riverside County and throughout the State to meet this
21 mandate. The following paragraph compares the environmentally superior action alternative

1 (Substation A with Access Road 2, Gen-Tie GT-A-2, and either Solar Farm B or C) to Alternative 4,
2 the CEQA No Project Alternative.

3
4 The No Project alternative would avoid the direct impacts of developing the project site, including
5 removal of desert tortoise habitat and special-status plants, significant and irretrievable impacts to
6 cultural resource sites, significant short-term impacts on air quality, and significant long-term impacts
7 on visual resources. However, it is reasonable to expect that, under the No Project alternative, other
8 renewable energy projects would be developed in other locations to meet California's Renewable
9 Portfolio Standard. In addition, if BLM does not amend the California Desert Conservation Area Land
10 Use Plan under the No Project Alternative, another renewable energy project could be approved on
11 the site of the environmentally superior action alternative in the future to facilitate meeting
12 California's Renewable Portfolio Standard, and such a project would likely have impacts similar to or
13 equivalent to those of the environmentally superior action alternative. Impacts of these other potential
14 projects could be more or less severe than the environmentally superior action alternative. Speculation
15 on the severity and magnitude of impacts from these potential other projects is not required (CEQA
16 Guidelines 15126.6 [f][3]). However, because the No Project alternative would likely result in
17 development of other renewable energy projects in other locations, and because the No Project
18 alternative would not preclude future development of a renewable energy project on the site of the
19 environmentally superior action alternative, resulting in impacts similar to those of the
20 environmentally superior action alternative, the CPUC believes that the environmentally superior
21 action alternative, an alternative combining **Substation A with Access Road 2, Gen-Tie GT-A-2, and**
22 **either Solar Farm Layout B or Layout C**, is environmentally superior to the No Project alternative.

23 24 **C.3 CEQA ENVIRONMENTALLY SUPERIOR ALTERNATIVE**

25 Based on the comparison presented in Table C-1 and the following discussion, the CPUC believes the
26 environmentally superior Substation alternative is Substation A with Access Road 1. Based on the
27 comparison presented in Table C-2 and the following discussion, the CPUC believes the
28 environmentally superior Gen-Tie Line alternative is GT-A-2. Based on the comparison presented in
29 Table C-3 and the following discussion, the CPUC considers the two Solar Farm Alternatives (B and
30 C) to be environmentally equal.

31
32 Based on the discussion presented in Section C.2.7, the CEQA environmentally superior alternative is
33 an alternative combining **Substation A with Access Road 2, Gen-Tie GT-A-2, and either Solar**
34 **Farm Layout B or Layout C**.