Section 4.0
Alternatives to the Proposed Project

INTRODUCTION

Section 15126.6(a) of the CEQA Guidelines requires that an EIR describe a range of reasonable alternatives to the project, or a range of reasonable alternatives to the location of the project, that could feasibly attain the basic objectives of the project. An EIR does not need to consider every conceivable alternative project, but it does have to consider a range of potentially feasible alternatives that will facilitate informed decision-making and public participation.

According to CEQA Guidelines Section 15126.6(a), the discussion of alternatives must include several different issues. The discussion of alternatives must focus on alternatives to the project, or to the project location, which will avoid or substantially reduce any significant effects of the project, even if the alternatives would be costlier or hinder to some degree the attainment of the project objectives. The “No Project” alternative must also be evaluated. The “No Project” analysis must discuss the existing conditions and what would reasonably be expected to occur in the foreseeable future if the proposed project was not approved. The range of alternatives required is governed by a “rule of reason.” Therefore, the EIR must only evaluate those alternatives necessary to permit a reasoned choice. The alternatives must be limited to only ones that would avoid or substantially lessen any of the significant effects of the proposed project.

Additionally, an EIR should not consider an alternative whose effects cannot be reasonably ascertained and whose implementation is remote and speculative. The CEQA Guidelines also require an EIR to state why an alternative is being rejected. If the County ultimately rejects any or all alternatives, the rationale for rejection will be presented in the findings that are required before the County certifies the EIR and takes action on the proposed project. According to Section 15126.6(f)(1) of the CEQA Guidelines, among the factors that may be taken into account when addressing feasibility of alternatives are environmental impacts, site suitability, economic viability, availability of infrastructure, general plan consistency, policy preferences, regulatory limitations, jurisdictional boundaries, and whether the applicant could reasonably acquire, control, or otherwise have access to the alternate site.

The project alternatives are evaluated to determine the extent to which they attain the basic project objectives, while significantly reducing or avoiding any significant effects of the proposed project. The proposed project objectives are outlined in the Project Objectives subsection, in Section 2.0, Project Description, of this EIR.
The objectives of the proposed project include the following:

1. Assist the State of California in achieving or exceeding its Renewables Portfolio Standard (RPS) and greenhouse gas (GHG) emissions reduction objectives by developing and constructing new California RPS-qualified solar power generation facilities producing approximately 650 MWs.

2. Produce and transmit electricity at a competitive cost.

3. Provide a new source of energy storage that assists the state in achieving or exceeding its energy storage mandates.

4. Use the existing interconnection at the Coolwater Substation that provides approximately 650 MW of capacity.

5. Utilize existing energy infrastructure to the extent possible by locating solar power generation facilities in close proximity to existing infrastructure, such as electrical transmission facilities.

6. Site solar power generation facilities in areas of San Bernardino County by 2020 that have the best solar resource to maximize energy production and the efficient use of land.

7. Develop a solar power generation facility in San Bernardino County, which would support the economy by investing in the local community, creating local construction jobs, and increasing tax and fee revenue to the County.

**IMPACTS OF THE PROPOSED PROJECT**

Pursuant to CEQA, alternatives were evaluated for whether they would avoid or substantially lessen any significant impacts of the proposed project. The evaluation considered whether the alternative would create significant environmental impacts potentially greater than those of the project as proposed. To evaluate the impacts that could be avoided or substantially lessened through an alternative, the County first identified the potentially significant impacts of the proposed project. The following resource topics were evaluated further in this EIR (refer to Section 3.0, Introduction to Environmental Analysis):

- Aesthetics and Visual Resources
- Agriculture and Forestry Resources
- Air Quality
- Biological Resources
- Cultural, Tribal Cultural, and Paleontological Resources
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Transportation and Traffic
- Utilities and Service Systems
The environmental impact analysis revealed that with the implementation of mitigation measures, the proposed project would largely result in less than significant impacts. However, impacts to construction-phase air quality related to potential exceedance of plan and air quality standards would be significant and unavoidable. Additionally, impacts on hydrology and water quality would be significant and unavoidable due to potential conditions within the affected groundwater subbasin and indirect effects of development on groundwater supplies. A summary discussion of project impacts is presented in Table 4-1.

**Table 4-1:**
Summary of Environmental Impacts of the Proposed Project

<table>
<thead>
<tr>
<th>Resource Topic</th>
<th>Environmental Impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aesthetics and Visual Resources</td>
<td><strong>Less than significant impact</strong> on scenic resources; historic buildings within a state scenic highway; existing visual quality of project site and its surrounding lands; day or nighttime views in the areas due to glare and nighttime lighting; and no significant contribution to a cumulative aesthetic impact. <strong>No impact</strong> on scenic vistas.</td>
</tr>
<tr>
<td>Agriculture and Forestry Resources</td>
<td><strong>Less than significant impact</strong> from conflict with existing zoning for agricultural use or Williamson Act contract; conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to nonagricultural use; environmental changes resulting in conversion of farmland or forest land; and no significant contribution to a cumulative impact on Agriculture and Forestry Resources. <strong>No impact</strong> from conflict with existing zoning for forest land or timberland, and loss or conversion of forest land to non-forest use.</td>
</tr>
<tr>
<td>Air Quality</td>
<td><strong>Significant and unavoidable</strong> impacts from conflict with applicable air quality management plan; contribution to an air quality exceedance during construction; and a significant contribution to cumulative air impacts during construction. <strong>Less than significant impact with mitigation</strong> from exposure of sensitive receptors to substantial pollutant concentrations. <strong>Less than significant impact</strong> from creation of objectionable odors.</td>
</tr>
<tr>
<td>Biological Resources</td>
<td><strong>Less than significant impact with mitigation</strong> on candidate, sensitive, or special-status species and federally protected wetlands; riparian or other sensitive natural vegetation communities; movement of wildlife species or migratory wildlife corridors; and no significant contribution to cumulative biological impacts. <strong>Less than significant impact</strong> from conflict with local policy or ordinance protecting biological resources. <strong>No impact</strong> from conflict with an adopted conservation plan.</td>
</tr>
<tr>
<td>Cultural, Tribal Cultural, and Paleontological Resources</td>
<td><strong>Less than significant impact with mitigation</strong> on historical resources, archaeological resources, unique paleontological resource and geologic feature; disturbance of human remains; tribal cultural resources; and no significant contribution to a cumulative cultural resources impact.</td>
</tr>
</tbody>
</table>
### Table 4-1, continued

<table>
<thead>
<tr>
<th>Resource Topic</th>
<th>Environmental Impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geology and Soils</td>
<td><strong>Less than significant impact</strong> on adverse effects from rupture of an earthquake fault, strong seismic ground shaking, landslides, and seismic-related ground failure; substantial soil erosion or the loss of topsoil; being located on unstable or expansive soils; use of septic tanks or alternative wastewater disposal systems; and no significant contribution to a cumulative geology and soils impact.</td>
</tr>
<tr>
<td>Greenhouse Gas Emissions</td>
<td><strong>Less than significant impact</strong> from generation of greenhouse gas emissions that may have a significant impact on the environment; conflict with an applicable plan, policy, or regulation for the purpose of reducing emissions; and no significant contribution to a cumulative greenhouse gas emissions impact.</td>
</tr>
<tr>
<td>Hazards and Hazardous Materials</td>
<td><strong>Less than significant impact with mitigation</strong> from creation of reasonably foreseeable spill and accident conditions involving the release of hazardous materials into the environment and located in an area covered by an airport land use plan and within 2 miles of public airport or public use airport. <strong>Less than significant impact</strong> from the routine transport, use, or disposal of hazardous materials; located on a site that is included on a list of hazardous materials sites; interfering with an adopted emergency plan or emergency evacuation plan; exposing people or structures to a significant risk involving wildfires; and disturbance on the use or routine transport of hazardous materials when combined with other related cumulative projects. <strong>No impact</strong> from hazardous emissions or handling of hazardous materials near an existing or proposed school.</td>
</tr>
<tr>
<td>Hydrology and Water Quality</td>
<td><strong>Significant and unavoidable</strong> impacts from substantially depleting groundwater supplies or substantially interfering with groundwater recharge; and significant contribution to a cumulative hydrology and water quality impact (groundwater). <strong>Less than significant impact</strong> and no violation of water quality standards or waste discharge requirements; altering drainage patterns of the site to result in erosion, siltation, or flooding; increasing the rate or amount of surface runoff that would result in flooding on- or off-site; creating runoff water which would exceed stormwater drainage system capacity provide substantially additional sources of polluted runoff; substantially degrading water quality; and placing structure within a 100-year floodplain which would impede or redirect flows. <strong>No impact</strong> from exposure of people or structures to significant risk involving flooding; and inundation by seiche, tsunami, or mudflow.</td>
</tr>
<tr>
<td>Land Use and Planning</td>
<td><strong>Less than significant impact with mitigation</strong> from conflicting with land use plans, policies, and regulations. <strong>Less than significant impact</strong> from physically dividing an established community; and creation of collectively significant impacts related land use and planning when combined with other projects. <strong>No impact</strong> from conflicts with any applicable habitat conservation plan or natural community conservation plan.</td>
</tr>
</tbody>
</table>
Table 4-1, continued

<table>
<thead>
<tr>
<th>Resource Topic</th>
<th>Environmental Impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Noise</td>
<td><strong>Less than significant impact with mitigation</strong> from exposure of people to noise levels in excess of local noise standards; creation of substantial permanent increase in ambient noise levels; creation of substantial temporary or periodic increase in ambient noise levels; and no significant contribution to a cumulative land use impact. <strong>Less than significant impact</strong> from exposure of persons to excessive vibration or noise levels; exposure of people residing or working in project area to excessive noise levels within 2 miles of a public airport and in the vicinity of a private airstrip; and significant short-term noise impacts to nearby sensitive noise receptors associated with the proposed project and other related cumulative projects.</td>
</tr>
<tr>
<td>Transportation and Traffic</td>
<td><strong>Less than significant impact with mitigation</strong> from conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system; inadequate emergency access; change in air traffic patterns; and cumulative impacts on transportation and traffic. <strong>Less than significant impact</strong> from conflict with an applicable congestion management program; substantial increase in hazards due to design features or incompatible uses; and conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities.</td>
</tr>
<tr>
<td>Utilities and Service Systems</td>
<td><strong>Less than significant impacts</strong> from water supply availability. <strong>Less than significant impact</strong> on wastewater treatment requirements; water or wastewater treatment facilities; wastewater treatment capacity; landfill capacity; and compliance with statutes and regulations related to solid waste.</td>
</tr>
</tbody>
</table>

**Alternatives to the Proposed Project**

As noted previously, the CEQA Guidelines (Section 15126.6I(2)) require that the alternatives discussion include an analysis of the No Project Alternative. Pursuant to CEQA, the No Project Alternative refers to the analysis of existing conditions (i.e., implementation of current plans) and what would reasonably be expected to occur in the foreseeable future if the project was not approved. Potential environmental impacts associated with No Project Alternatives, and two project alternatives are compared below to assess impacts from the proposed project. These alternatives include: (1) No Project Alternative, (2) Reduced Footprint Alternative, and (3) Kramer Junction Alternative.

**Table 4-2, Comparison of Alternatives and Environmental Considerations**, summarizes the impact of each alternative on the environmental resources evaluated in the EIR when compared with the impact of the proposed project. Several criteria are considered for each resource topic and the conclusion considers the aggregate impact of each alternative relative to the impacts of the proposed project.
Table 4-2: Comparison of Alternatives and Environmental Considerations

<table>
<thead>
<tr>
<th>Topic</th>
<th>1: No Project Alternative</th>
<th>2: Reduced Footprint Alternative</th>
<th>3: Kramer Junction Alternative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aesthetics and Visual Resources</td>
<td>&lt;</td>
<td>&lt;</td>
<td>&gt;</td>
</tr>
<tr>
<td>Agriculture and Forestry Resources</td>
<td>&lt;</td>
<td>&lt;</td>
<td>&lt;</td>
</tr>
<tr>
<td>Air Quality</td>
<td>&lt;</td>
<td>&lt;</td>
<td>&gt;</td>
</tr>
<tr>
<td>Biological Resources</td>
<td>&lt;</td>
<td>&lt;</td>
<td>&gt;</td>
</tr>
<tr>
<td>Cultural, Tribal Cultural, and Paleontological Resources</td>
<td>&lt;</td>
<td>&lt;</td>
<td>&gt;</td>
</tr>
<tr>
<td>Geology and Soils</td>
<td>&lt;</td>
<td>&lt;</td>
<td>&gt;</td>
</tr>
<tr>
<td>Greenhouse Gas Emissions</td>
<td>&gt;</td>
<td>&lt;</td>
<td>&gt;</td>
</tr>
<tr>
<td>Hazards and Hazardous Materials</td>
<td>&lt;</td>
<td>&lt;</td>
<td>&lt;</td>
</tr>
<tr>
<td>Hydrology and Water Quality</td>
<td>&gt;</td>
<td>&lt;</td>
<td>&gt;</td>
</tr>
<tr>
<td>Land Use and Planning</td>
<td>&lt;</td>
<td>&lt;</td>
<td>&gt;</td>
</tr>
<tr>
<td>Noise</td>
<td>&lt;</td>
<td>&lt;</td>
<td>&lt;</td>
</tr>
<tr>
<td>Utilities and Service Systems</td>
<td>&gt;</td>
<td>&lt;</td>
<td>&gt;</td>
</tr>
<tr>
<td>Transportation and Traffic</td>
<td>&lt;</td>
<td>&lt;</td>
<td>&lt;</td>
</tr>
<tr>
<td>Attains Most Project Objectives</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Table 4-3, Project Objectives Consistency Analysis, identifies objectives consistency for each of the proposed alternatives. Further discussion of objectives related to each alternative is provided following the impact analysis comparison below.
Table 4-3:
Project Objectives Consistency Analysis

<table>
<thead>
<tr>
<th>Project Objective</th>
<th>1: No Project Alternative</th>
<th>2: Reduced Footprint Alternative</th>
<th>3: Kramer Junction Alternative</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Assist the State of California in achieving or exceeding its Renewables Portfolio Standard (RPS) and greenhouse gas (GHG) emissions reduction objectives by developing and constructing new California RPS-qualified solar power generation facilities producing up to 650 MWs.</td>
<td>No</td>
<td>Less than project</td>
<td>Less than project</td>
</tr>
<tr>
<td>2. Produce and transmit electricity at a competitive cost.</td>
<td>No</td>
<td>Higher cost&lt;sup&gt;1&lt;/sup&gt;</td>
<td>Higher cost&lt;sup&gt;1&lt;/sup&gt;</td>
</tr>
<tr>
<td>3. Provide a new source of energy storage that assists the state in achieving or exceeding its energy storage mandates.</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>4. Use the existing interconnection at Coolwater Substation that provides 650 MW of capacity.</td>
<td>No</td>
<td>Yes but only 185 MW</td>
<td>No&lt;sup&gt;2&lt;/sup&gt;</td>
</tr>
<tr>
<td>5. Utilize existing energy infrastructure to the extent possible by locating solar power generation facilities in close proximity to existing infrastructure, such as electrical transmission facilities.</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>6. Site solar power generation facilities in areas of San Bernardino County by 2020 that have the best solar resource to maximize energy production and the efficient use of land.</td>
<td>No</td>
<td>Yes</td>
<td>No&lt;sup&gt;3&lt;/sup&gt;</td>
</tr>
<tr>
<td>7. Develop a solar power generation facility in San Bernardino County, which would support the economy by investing in the local community, creating local construction jobs, and increasing tax and fee revenue to the County.</td>
<td>No</td>
<td>Yes</td>
<td>No&lt;sup&gt;4&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

Notes:
1. Information about energy market pricing is not public information and future competitive pricing for solar and battery storage is speculative; therefore, it was assumed that Alternatives 2 and 3 could meet the objective.
2. Alternative 3 would interconnect at the Kramer Substation rather than the Coolwater substation. Development on BLM lands in this area of San Bernardino County has been prohibited until 2021 at the earliest, pending the finalization of state and federal policy on Mohave ground squirrel population.
3. Alternative 3 would be located on federal land and would not generate tax and fee revenue to the County.

**Alternative 1: No Project Alternative**

**Description of Alternative**

Under the No Project Alternative, the proposed solar energy and storage facility would not be constructed. The existing conditions in the project site would remain. The No Project Alternative does not achieve any of the basic project objectives.
Impact Comparison to the Proposed Project

Under the No Project Alternative, impacts associated with construction and operation of the solar energy and storage facility would be avoided.

Aesthetics and Visual Resources
Implementation of the No Project Alternative would not impact scenic resources, as the project site would remain in its current condition. Views of agricultural land, the Barstow-Daggett airport, various transportation and utility infrastructure, and residences would remain. No new sources of light and glare would be constructed. The No Project Alternative would have no aesthetic impacts. The No Project Alternative would avoid the proposed project’s less than significant impacts on visual quality. The No Project Alternative would have no impact on scenic resource or visual quality.

Agriculture and Forestry Resources
The No Project Alternative would have no impact on agricultural and forestry resources. No designated farmland would be converted to nonagricultural use, and no environmental changes would occur from conversion of farmland. The No Project Alternative would avoid the proposed project’s impacts on agricultural resources resulting from conversion of farmland.

Air Quality
The No Project Alternative would not require vehicle or equipment use. Dust emissions from the active and fallow agricultural areas would continue at the same rate as existing conditions. Criteria air pollutant emissions would not increase and the risk to sensitive receptors would remain the same as baseline conditions. Ambient air quality of the project site would not be affected by the No Project Alternative. The No Project Alternative would avoid the proposed project’s significant and unavoidable impacts on air quality resulting from construction of the proposed solar and energy storage facility.

Biological Resources
The No Project Alternative would not require ground-disturbing activities and would not affect special-status plant and wildlife species that may occur within the project site. No impacts on biological resources would occur. The No Project Alternative would avoid the proposed project impacts on biological resources including special-status species and habitats that would result from construction of the proposed solar and energy storage facility.

Cultural, Tribal Cultural, and Paleontological Resources
The No Project Alternative would not involve ground-disturbing activities. The No Project Alternative would not impact archaeological, tribal, cultural, or paleontological resources or disturb human remains. The No Project Alternative would avoid potential proposed project impacts on cultural, tribal cultural, and paleontological resources resulting from potential
damage of buried archaeological, tribal cultural, and paleontological resources during construction of the solar and energy storage facility.

**Geology and Soils**
The No Project Alternative would not involve in the development of the project site and would not expose structures or property to adverse effects from rupture of an earthquake fault, strong seismic ground shaking, seismic-related ground failure, liquefaction, landslides, or expansive or unstable soil. The No Project Alternative would not involve ground-disturbing activities and soil erosion and topsoil loss would continue at the same rate as baseline conditions in active and fallow agricultural areas. No geologic, soils, or seismicity impacts would occur with the No Project Alternative. The No Project Alternative would avoid the proposed project’s impacts from exposure to earthquake faults, strong seismic ground shaking, seismic-related ground failure, landslides, soil erosion or loss of topsoil, unstable geological conditions, and expansive or unstable soils because no development would occur in the project site.

**Greenhouse Gas Emissions**
The No Project Alternative would not require construction of a new solar energy and storage facility. The existing greenhouse gas emissions from agricultural activities and existing agricultural use of the project site would continue. The No Project Alternative would not implement a renewable energy project and would not help the State of California meet its for renewable energy generation targets to reduce greenhouse gas emissions. The No Project Alternative would avoid the proposed project’s less than significant impacts from generation of greenhouse gas emissions during construction because no development would occur in the project site.

The No Project Alternative would not retire the existing agricultural operations and equipment use on the project site or produce renewable energy. The long-term emissions of the No Project Alternative are expected to be greater than the proposed project due to the continued agricultural operation and use of the project site.

**Hazards and Hazardous Materials**
The No Project Alternative would not involve transportation or use of hazardous materials for construction of a solar and energy storage facility and would not introduce large batteries containing flammable materials. The risk of wildfire would not increase because the existing vegetation and use of the project site would remain. There would be no impacts related the hazards and hazardous materials.

The No Project Alternative would not impact air traffic safety because the No Project Alternative would not introduce any new infrastructure in areas covered by an Airport Land Use Plan. No infrastructure would be erected under the No Project Alternative.
The No Project Alternative would avoid the proposed project’s impacts from transport of hazardous materials and introduction of potentially flammable battery storage materials into the project site. The No Project Alternative would also avoid the introduction of structures into the airport safety zone at the Barstow-Daggett airport.

**Hydrology and Water Quality**

The No Project Alternative would not create new impervious surfaces or include any development at the project site. No ground-disturbing activities would occur, and erosion and runoff rates would be unchanged from baseline conditions. The No Project Alternative would involve continuation of agricultural operations at the project site. The continued agricultural operations would involve substantial use of groundwater. The seven landowners within the project have base annual production rights of 27,054 acre-feet of water per year, which is the highest annual production that would be feasible for the area (Tetra Tech 2018). The court-appointed water master for the basin also established Free Production Allowance of 35 percent of the base annual production to maintain a proper water balance. The Free Production Allowance for property owners on the project site is 7,682 acre-feet of water per year (*ibid*). The amount of water used for agricultural production on the site ranged from 8,338 to 10,781 acre-feet of water per year between 2014 and 2017. This extraction of groundwater would be expected to continue under the No Project Alternative. The continued use of groundwater for agricultural production in the project area would not significantly impact groundwater supplies because groundwater allocations in the project area have been adjudicated and groundwater use in the area is managed by a water master. Continued agricultural operations under the No Project Alternative would involve substantially more groundwater use than the proposed project. Additionally, the No Project Alternative would not necessarily avoid the project’s contribution to significant and unavoidable impacts on hydrology and water quality (groundwater supply) due to potential future transfer or shift of the Free Production Allowance (FPA) of the current landowners within the subbasin (which they can do with or without the project) and the fact that the County cannot compel actions by the Watermaster to adjust FPA or take other actions to reach equilibrium in the Baja Subarea.

The No Project Alternative would avoid the proposed project’s less than significant impacts on water quality, altering drainage patterns of the site, increasing the rate of or amount of surface runoff, and placing structure within a 100-year floodplain. The No Project Alternative would not retire the existing agricultural operations and associated use of substantial groundwater resources and the long-term water use could be up to 8,802 acre-feet of water per year. The No Project Alternative would result in greater water resource impacts than the proposed project due to the continued use of substantial groundwater resources and the scarcity of water in the region.
4.0 Alternatives to the Proposed Project

**Land Use and Planning**
The No Project Alternative would not conflict with the San Bernardino County General Plan, County ordinances, or other applicable land use plans, policies, or regulations. No impacts related to land use would occur. The No Project Alternative would avoid the proposed project’s impacts from conflict with land use plans, policies, and regulations, and dividing an established community.

**Noise**
No construction or operation of a solar and energy storage facility would occur under the No Project Alternative and ambient noise levels on the project site would remain the same as existing conditions. The No Project Alternative would not conflict with local noise standards or result in changes to the ambient noise levels either temporarily, periodically, or permanently. The No Project Alternative would avoid the proposed project’s impacts from exposure of people to noise levels in excess of local noise standards and creation of substantial permanent and temporary increase in ambient noise levels.

**Utilities and Service Systems**
No new services would be required for the No Project Alternative. The existing agricultural use and associated groundwater withdrawals would continue on-site. The No Project Alternative would have no effect on water or wastewater treatment, stormwater drainage, or landfill capacity. The continued use of groundwater for agricultural production on-site would prohibit the use of groundwater resources for other applications in the region. Therefore, the No Project Alternative would have greater impacts on utilities and service systems than the proposed project due to the continued water demand from agricultural production on-site, whereas the proposed project would substantially reduce the on-site water demand.

**Transportation and Traffic**
No construction would occur with the implementation of the No Project Alternative. The No Project Alternative would not introduce new traffic to the area. The existing agricultural use and vehicle traffic would remain on the project site. No new access roads, solar facilities, or gen-tie lines would be constructed and the existing transportation and traffic conditions, including air traffic patterns, in the area would remain. The No Project Alternative would avoid all proposed project impacts from generation of traffic and creation of new access roads.

**Alternative 1 Summary and Feasibility**
Implementation of Alternative 1, the No Project Alternative, would avoid the environmental impacts of the proposed project because no solar energy and storage facility would be constructed. The baseline environmental conditions on the project site would remain under the No Project Alternative. The No Project Alternative would not retire the existing agricultural
operations on the site, which would continue to use groundwater resources and produce greenhouse gas emissions from agricultural equipment use. The No Project Alternative would have fewer impacts on most environmental resources as compared to the proposed project because no construction would occur, and land use patterns of the site would remain. The No Project Alternative would have greater impacts on water resources (groundwater) and greenhouse gases due to continued agricultural operation on the site under the No Project Alternative. The No Project Alternative would not meet any of the basic project objectives.

**ALTERNATIVE 2: REDUCED FOOTPRINT ALTERNATIVE**

**Description of Alternative**

Alternative 2, the Reduced Footprint Alternative, would substantially reduce the footprint of the solar energy and storage facility to reduce significant air quality impacts to a less than significant level. The Alternative 2 solar facility would encompass approximately 1,015 acres, approximately 29% of the 3,500 acres required for the proposed project. Alternative 2 would produce up to 185 MW of energy. Alternative 2 construction would occur over 13.5 months for Phase 1 (57.5 MW), 13.5 months for Phase 2 (57.5 MW) and 19 months for Phase 3 (70 MW). The phases and stages within each phase would not overlap. An average of 85 workers would be on site during each stage of construction, depending on the activities.

A conceptual layout and reduced footprint for the Alternative 2 solar energy and storage facility is provided on Exhibit 4-1, Reduced Footprint Alternative (Concept).
Exhibit 4-1: Reduced Footprint Alternative (Concept)
**Impact Comparison to the Proposed Project**

**Aesthetics and Visual Resources**
Alternative 2 would avoid solar development on approximately 2,485 acres of land within the project site. The impact on views from scenic highways, including Route 66 and I-40 would be reduced with implementation of Alternative 2 because the solar facility footprint would be substantially reduced, which would reduce the extent and duration of views of the solar and energy storage facilities from scenic highways. The alternative would also reduce the change in visual quality from nearby public roads because the extent of land conversion would be substantially minimized and the use of public roads with views of the solar facility would be reduced.

Alternative 2 would reduce the number of solar panels and new sources of lighting that would be introduced to the project site due to the 71% reduction in the project footprint. Light and glare impacts under Alternative 2 would be reduced compared to the proposed project. Implementation of Alternative 2 would reduce aesthetic impacts on scenic highways, visual quality, and light and glare. Alternative 2 would have less impact on aesthetics than the proposed project.

**Agriculture and Forestry Resources**
Alternative 2 would reduce the conversion of Prime Farmland, Farmland of Statewide Importance, and Unique Farmland due to the substantial reduction in the Alternative 2 footprint. Alternative 2 would have no impact on forestry resources. Alternative 2 would result in substantially less impact on agricultural resources compared to the proposed project because less designated farmland would be converted to nonagricultural use.

**Air Quality**
Alternative 2 would reduce the intensity of construction and associated construction equipment emissions and the fugitive dust due to a 2,485-acre reduction in the area of ground disturbance. The reduced overall footprint of the project would substantially reduce the fugitive dust generated during construction of the project. Table 4-4, Alternative 2 Mitigated Construction Emissions by Stage (Pounds per Day), lists the mitigated construction emissions for each stage of Alternative 2 construction after implementation of the dust control mitigation measures included for the proposed project. Alternative 2 construction emissions would not exceed MDAQMD thresholds for all pollutants and Alternative 2 impacts would be less than significant with mitigation.
### Table 4-4:
Alternative 2 Mitigated Construction Emissions by Stage (Pounds per Day)

<table>
<thead>
<tr>
<th>Construction Stage</th>
<th>CO</th>
<th>ROGs</th>
<th>NOx</th>
<th>SOx</th>
<th>PM$_{10}$</th>
<th>PM$_{2.5}$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage 1</td>
<td>28.0</td>
<td>8.8</td>
<td>134.6</td>
<td>0.3</td>
<td>79.5</td>
<td>19.4</td>
</tr>
<tr>
<td>Stage 2</td>
<td>20.1</td>
<td>3.1</td>
<td>54.2</td>
<td>0.1</td>
<td>2.4</td>
<td>2.4</td>
</tr>
<tr>
<td>Stage 3</td>
<td>4.4</td>
<td>0.8</td>
<td>15.6</td>
<td>0.0</td>
<td>0.6</td>
<td>0.5</td>
</tr>
<tr>
<td>Peak Day</td>
<td>28.0</td>
<td>8.8</td>
<td>134.6</td>
<td>0.3</td>
<td>79.5</td>
<td>19.4</td>
</tr>
<tr>
<td>MDAQMD Threshold</td>
<td>548</td>
<td>137</td>
<td>137</td>
<td>137</td>
<td>82</td>
<td>65</td>
</tr>
<tr>
<td>Exceedance?</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

Source: HDR 2019

Alternative 2 would reduce the proposed project’s significant and unavoidable impacts on air quality construction emissions to a less than significant level. Alternative 2 would have less air quality impacts than the proposed project.

**Biological Resources**

The area of disturbance for Alternative 2 would be approximately 2,485 acres less than the proposed project. Alternative 2 would have less impact on biological resources than the proposed project because Alternative 2 would involve less ground disturbance, which would reduce the potential for impacts on other special-status species and their habitats including the Mojave fringe-toed lizard, desert tortoise, burrowing owl, desert kit fox, America badger, and special-status and migratory birds.

**Cultural, Tribal Cultural, and Paleontological Resources**

Alternative 2 would avoid development and associated ground-disturbing activities on 2,485 acres of the project site. The reduced area of ground disturbance would reduce the potential for potential discovery and damage of significant archaeological, paleontological, and tribal cultural resources. Alternative 2 would have less potential impact on cultural, tribal cultural, and paleontological resources than the proposed project.

**Geology and Soils**

Alternative 2 would be located within the project site on the same geologic and soil units as the proposed project. The area of Alternative 2 ground disturbance would be 1,015 acres and 71% less than the proposed project. Alternative 2 would reduce impacts from loss of top soil due to the reduction in the project footprint. Geology and soil impacts associated with the implementation of Alternative 2 would be less than the proposed project.
**Greenhouse Gas Emissions**

Alternative 2 would reduce the construction activity level by phasing the construction and reducing the project footprint by approximately 71%. Alternative 2 GHG emissions would reduce by a similar amount in conjunction with the reduced footprint. Alternative 2 would produce 185 MW of renewable energy, which would be less than the 650 MW of renewable energy produced by the proposed project. The reduced production of renewable energy would mean that the State of California would need to produce and procure renewable energy in other places to meet the renewable energy targets in SB 100. Alternative 2 construction would have less GHG emissions and impact on GHG than the proposed project.

**Hazards and Hazardous Materials**

Alternative 2 would involve use of the same hazardous materials as the proposed project (e.g., fuels, asphalt, lubricants, toxic solvents, pesticides, and herbicides); however, the substantial reduction in the Alternative 2 footprint would reduce areas where these materials would be transported and stored by avoiding development on approximately 2,485 acres. The reduced energy storage infrastructure would reduce the potential for ignition of an industrial fire on the project site. The proposed project includes solar panel installation in areas east and west of runway 826 and northeast of runway 422 in Barstow-Daggett Airport. Alternative 2 would remove solar development and gen-tie lines from areas within the Barstow-Daggett Airport Safety Area 1, and therefore, project review would not be required by the Federal Aviation Administration (FAA).

**Hydrology and Water Quality**

Alternative 2 would avoid ground-disturbing activities on approximately 2,485 acres of land. The reduced ground disturbance would reduce the potential for increased sedimentation and runoff during storm events. Alternative 2 would reduce the amount of required stormwater detention facilities. Alternative 2 would require less water for dust control during construction and operation due to the reduction in the total number of acres that would be disturbed during construction.

However, Alternative 2 would not necessarily avoid the project’s contribution to significant and unavoidable impacts on hydrology and water quality (groundwater supply) due to potential future transfer or shift of the FPA of the current landowners within the subbasin and the fact that the County cannot compel actions by the Watermaster to adjust FPA or take other actions to reach equilibrium in the Baja Subarea.

Overall, Alternative 2 would have less impact on hydrology and water quality than the proposed project.
Land Use and Planning
Alternative 2 is located within the same land use and zoning designation as the proposed project in which solar development is allowed. Alternative 2 would create additional separation between residential areas and the solar facility. Alternative 2 would also avoid introduction of solar infrastructure and gen-tie lines within the Barstow-Daggett Airport Safety Area 1, which would reduce the potential for conflicts with the Airport Land Use Plan. Alternative 2 would have less land use impact than the proposed project.

Noise
Construction equipment used for Alternative 2 would be similar to the proposed project. Alternative 2 would increase residential setbacks and create additional separation between residential areas and construction activities. Since noise attenuates with distance, Alternative 2 would reduce peak construction and operational noise levels at the nearest receptor due to the increased setback from residences. Alternative 2 noise impacts would be less than the proposed project.

Utilities and Service Systems
Alternative 2 would produce less wastewater and require less water during construction and operation due to the reduction in the project footprint and associated reduction in water use and runoff generated during construction and operation. Alternative 2 would also produce less waste relative to the reduction in the project footprint. Overall, Alternative 2 impacts on utilities and service systems would be less than the proposed project.

Transportation and Traffic
With Alternative 2, the intensity of construction and the daily workforce would remain the same; however, overall construction would be shorter in duration. Additionally, Alternative 2 would also avoid development in the Barstow-Daggett Airport Safety Area 1, although project facilities are not prohibited from this Area when issued a Determination of No Hazard from the FAA.

Alternative 2 Summary and Feasibility
Overall, implementation of Alternative 2 would result in reduced impacts on aesthetics, agricultural resources, air quality, biological resources, cultural, tribal cultural, and paleontological resources, geology and soils, greenhouse gases, hydrology and water quality, hazards and hazardous materials, land use, noise, transportation and traffic, and utilities when compared to the proposed project. Alternative 2 attains some project objectives (refer to Table 4-3) and is potentially feasible.
**ALTERNATIVE 3: KRAMER JUNCTION SOLAR SITE ALTERNATIVE**

*Description of Alternative*

Alternative 3, the Kramer Junction Solar Site Alternative, would include 650 MW of electric generation capacity through the use of solar PV panels, battery storage, on-site substations, and a gen-tie line. Given the land area, Alternative 3 could have a similar generation capacity as the proposed project. The Alternative 3 site includes approximately 3,913 acres on BLM administered land, located west of the Interstate 395 highway (I-395) and north of U.S. Route 58, just north of the community of Boron as shown on Exhibit 4-2, Kramer Junction Solar Site Alternative. The northern two-thirds of the Alternative 3 site is designated as a Development Focus Area (DFA) in the Desert Renewable Energy Conservation Plan (DRECP) and the remainder of the site is undesignated in the DRECP.

The DRECP requires CDFW to develop a county-wide conservation strategy that addresses Mohave ground squirrel, prior to developing land in DFA-designated areas. The time it would take to development the conservation strategy would likely delay any solar development in the area, however; the Alternative 3 site is considered a feasible location for solar development because it is an allowable use under the DRECP. Although the Alternative 3 solar site covers approximately 3,913 acres, the actual area of development would be similar to the proposed project (approximately 3,500 acres).

The anticipated route of the Alternative 3 gen-tie is shown on Exhibit 4-2 but has not been fully determined at this time. It is assumed that the gen-tie line would require an approximately 5-mile long gen-tie line and associated right-of-way. The point of interconnection would be at the Kramer Substation. Upgrades to the Kramer Substation may be required to allow for the interconnection. Depending on the final location of the gen-tie, existing rights-of-way may be required for the entirety, or a portion, of the gen-tie line.

An off-site alternative was recommended by the public to reduce impacts on the Daggett community. Alternative 3 would locate the proposed solar facility farther from residences than the proposed project and would avoid potential land use and air traffic safety impacts associated with location of a solar facility in proximity to an airport.
This page is intentionally blank.
Exhibit 4-2: Kramer Junction Solar Site Alternative
This page is intentionally blank.
Impact Comparison to the Proposed Project

Aesthetics and Visual Resources
Alternative 3 would include development of the solar facility within an undisturbed desert area, covered in a network of desert washes. There is an existing solar facility directly east and adjacent to the Alternative 3 site, and an existing boron mine directly west and adjacent to the Alternative 3 site. The visual quality of the Alternative 3 site and surrounding area is considered low to moderate, given the existing encroachments east and west of the Alternative 3 site.

A transmission corridor containing a high voltage transmission line, a sub-transmission line, gas pipeline, fiber optic cable, and distribution lines, runs parallel to the west side of I-395. An existing solar facility is located between I-395 and the Alternative 3 site. Construction at the Alternative 3 solar site would result in changes in existing views from I-395 and U.S Route 58. U.S Route 58 is an eligible state scenic highway. Existing views towards of the Alternative 3 site from the U.S. Route 58 are currently dominated by undeveloped desert landscape with scrub shrub vegetation and mountains in the background.

The project would replace views of the open desert with views of a solar facility. The gen-tie line for Alternative 3 would be approximately 5-miles long and would parallel U.S. Route 58. The gen-tie line and solar facility would not substantially obstruct or interrupt views of the surrounding landscape; however, the level of contrast to the existing undisturbed landscape would be moderate to moderately high in areas where the solar facility is close to U.S. Route 58. The resulting impact on visual quality would potentially be significant and unavoidable.

Alternative 3 would introduce similar new sources of lighting and glare to the Alternative 3 site as the proposed project. All lighting would be installed in accordance with County standard for nighttime lighting. The gen-tie line would be constructed with metallic components, which could introduce new sources of glare to the project site. No residences are located near the Alternative 3 site and solar panels would not direct glare towards the adjacent highways due to the angle of the solar panels relative to the highways. Impacts from light and glare would be less than significant.

Alternative 3 has greater impacts on aesthetics than the proposed project due to the introduction of industrial elements into a more undisturbed visual landscape near an eligible scenic highway. Implementation of this alternative would result in a potentially significant and unavoidable impact.

Agriculture and Forestry Resources
Alternative 3 would not involve development within designated farmland and would not convert farmland to nonagricultural use. Alternative 3 would have no impact on farmland. Alternative 3 would avoid all proposed project impacts on agricultural resources.
**Air Quality**

Alternative 3 would involve the use of construction equipment and vehicles that would result in temporary construction emissions. The alternative would not result in extended exposure of residences to criteria air pollutants or toxic air contaminants, as there are no residences in the vicinity of the Alternative 3 site. This alternative is located within a dry desert area with a network of washes. The Alternative 3 site is more topographically diverse than the project site. Alternative 3 would require more grading for site development to even out the grade for solar panel installation. The additional grading would result in greater potential for generation of fugitive dust (PM$_{10}$ and PM$_{2.5}$) during construction and over the project life. The additional grading would also require increased diesel-powered equipment activity, which would result in greater NO$_x$ emissions. Alternative 3 would exceed MDAQMD thresholds for NO$_x$, PM$_{10}$, and PM$_{2.5}$, even with mitigation incorporated, and the impact would be significant and unavoidable.

Alternative 3 would use the same types of construction equipment as the proposed project. The alternative would result in increased air quality emissions from fugitive dust due to the substantial grading that would be required on the site. Alternative 3 would avoid exposure of sensitive receptors to criteria air pollutants or toxic air contaminants because there are no sensitive receptors adjacent to the site. The nearest sensitive receptors are approximately 0.3 miles southwest of the Alternative 3 site, in Boron. Alternative 3 would have a greater impact on air quality than the proposed project because Alternative 3 would result in increased significant and unavoidable emissions of criteria air pollutants.

**Biological Resources**

Alternative 3 would have the potential to affect special-status wildlife and plant species, including direct impacts on habitat for desert tortoise, burrowing owl, special-status birds and bats, desert kit fox, and Mohave ground squirrel. Two BLM special-status plant species, desert cymopterus (*Cymopterus deserticola*) and Barstow woolly sunflower, (*Eriophyllum mohavense*), have the potential to occur on the Alternative 3 site.

Alternative 3 impacts on special-status species, habitat, and plants would be significant. Alternative 3 is located in proximity to known populations of Mohave ground squirrel and would result in substantial loss of Mohave ground squirrel habitat and impacts on desert wash habitat.

Alternative 3 would result in greater impacts on special-status species, habitat and plants than the proposed project. Mitigation measures identified for the proposed project could be implemented to reduce some biological resource impacts; however, additional mitigation measure would be required to address potential impacts on Mohave ground squirrel and desert washes. Alternative 3 would result in greater impacts on biological resources than the proposed project.
Cultural, Tribal Cultural, and Paleontological Resources
Alternative 3 would include ground-disturbing activities on undeveloped desert terrain. Ground-disturbing construction activities have the potential to uncover buried archeological, tribal cultural, or paleontological resources or human remains and result in a significant impact. Implementation of the mitigation measures identified for the proposed project would reduce potential impacts to a less than significant level. The potential for disturbing archaeological, tribal, or paleontological resources on the Alternative 3 site would be greater than the potential at the project site because a large portion of the project site has been subject to active agricultural activities including tilling, which disturbs the ground surface and the potential to encounter significant cultural resources is therefore reduced. Implementation of Alternative 3 would result in greater potential impacts on cultural resources than the proposed project due to the undeveloped nature of the Alternative 3 site.

Geology and Soils
Implementation of Alternative 3 would include development of the solar facility within an area of desert washes with uneven terrain. Additional grading would be required for site preparation. Alternative 3 grading would have the potential to cause soil erosion and loss of topsoil. Soils at the Alternative 3 site consist of sandy loam and the depth to groundwater would be substantial due to the desert environment. The Alternative 3 site soil conditions are not subject to liquefaction, landslides, or collapse.

Alternative 3 would require more grading than the proposed project due to presence of slopes and desert washes. Geology and soil impacts associated with the implementation of Alternative 3 would be greater than the proposed project.

Greenhouse Gas Emissions
Alternative 3 construction would involve off-road construction equipment and vehicles that would result in construction GHG emissions, which would be short-term and temporary. GHG emissions associated with operations and maintenance of Alternative 3 would not exceed the GHG significance threshold of 3,000 MT CO₂e per year. Impacts associated with greenhouse gas emissions would be less than significant.

The Alternative 3 site is more topographically diverse than the project site and would require more vegetation removal and grading for site development to even out the grade for solar panel installation. The additional grading would result in greater use of off-road construction equipment, which would result in greater GHG emissions. Greenhouse gas impacts associated with the implementation of Alternative 3 would be greater than the proposed project.
4.0 Alternatives to the Proposed Project

Hazards and Hazardous Materials

Alternative 3 would involve use of the same hazardous materials as the proposed project (e.g., fuels, asphalt, lubricants, toxic solvents, pesticides, and herbicides). Project construction activities would occur in accordance with all applicable standards for handling and transport of hazardous materials set forth by the County of San Bernardino and state and federal health and safety requirements. The substation and solar facility are not located on sites that are included on a list of hazardous materials sites, as determined through review of the EnviroStor and GeoTracker databases.

There are two LUST cleanup sites located on the east side of Kramer Substation, but no development would occur at those locations. Alternative 3 would increase the potential for occurrence of wildfires in the project site above existing conditions and would introduce energy storage infrastructure containing highly flammable materials to a vegetated desert landscape. Impacts related to hazards and hazardous materials would be potentially significant and would likely require mitigation.

Alternative 3 would not include development in the vicinity of the Barstow-Daggett Airport and would avoid the potential air traffic safety hazards and conflicts. The Boron Airstrip, a private airstrip, is located approximately 0.70 mile south of the Alternative 3 project site. The Alternative 3 facilities would not be expected to create a hazard to air traffic due to the distance between the project and the Boron Airstrip similar to that with the proposed project when issued a Determination of No Hazard from the FAA.

Alternative 3 would require use of the same hazardous materials as the proposed project and would have the same less than significant impact related to the potential for wildfires. Alternative 3 would avoid air traffic safety hazards because Alternative 3 is not located in proximity to an airport. Alternative 3 would have less potential for hazard impacts than the proposed project.

Hydrology and Water Quality

Alternative 3 is located in an area crossed by a network of desert washes. Grading and earthwork in the Alternative 3 area would result in increased risk of erosion and associated water quality impacts. Alternative 3 could also require redirecting streams due to grading within the desert washes. Preparation of a project-specific Storm Water Pollution Prevention Plan (SWPPP) would minimize construction-related water quality impacts from erosion; however, impacts on stream flows could be significant due to grading within desert washes.

Construction of the Alternative 3 solar facility would require use of water for dust suppression. The Alternative 3 site does not contain any groundwater wells and does not have any existing groundwater use. The use of groundwater for dust control could have a significant impact on groundwater supplies. Although the site is located near an existing mine, but there are no known
sources of contamination on the site and Alternative 3 is not expected to create a new source of contaminated water.

Alternative 3 would not necessarily avoid the project’s contribution to significant and unavoidable impacts on hydrology and water quality (groundwater supply) due to potential future transfer or shift of the FPA of the current landowners within the subbasin and the fact that the County cannot compel actions by the Watermaster to adjust FPA or take other actions to reach equilibrium in the Baja Subarea.

The presence of Alternative 3 within an area of desert washes would increase the likelihood of flooding and substantial damage to the facility during flooding. Additional engineering would be required to avoid flood damage. The engineering solutions could result in other impacts on the environment, such as increased air quality and greenhouse gas emissions. Alternative 3 would result in greater hydrology and water quality impacts than the proposed project due to the location of the solar facility within an area of desert washes.

**Land Use and Planning**

Alternative 3 is located entirely within land under the jurisdiction of the BLM. The northern two-thirds of Alternative 3 is designed as a Development Focus Area within the BLM DRECP LUPA. The remainder of the Alternative 3 site is undesignated in the DRECP. DRECP Policies DFA-BIO-IFS-4 and 5 prohibit development in the Alternative 3 area until a county-wide conservation strategy has been developed by CDFW that addresses the Mohave Ground Squirrel population. Once the strategy is developed, the BLM would be required to review and determine if this area should remain as a DFA. No proposals for development will be considered by the BLM until a determination has been made.

The Alternative 3 solar and energy storage site is located outside the jurisdiction of the County. The nearest transmission interconnection would be Kamer Substation, and the gen-tie from the project solar site to the substation line may cross areas designated as RL-5 (rural living, 5-acre minimum), RL (rural living), and CR (rural commercial) by the General Plan. These zoning designations allow for the development of renewable energy generation facilities with County approval of a Conditional Use Permit (CUP).

Alternative 3 would have greater land use impacts than the proposed project due to siting of the project on BLM land where a portion of the site is not covered by a DFA and a county-wide conservation strategy needs to be adopted prior to any solar facility being allowed in the area.

**Noise**

Alternative 3 would involve short-term construction noise and long-term operational noise. The closest sensitive receptors are located approximately 0.30 mile southwest of the Alternative 3...
site. The impact from noise generation during construction and operation would be less than significant due to the distance between the project facilities and the nearest sensitive receptor.

Construction at the Alternative 3 solar site would have a lesser noise impact than the proposed project solar site because there are no sensitive receptors immediately adjacent to the alternative solar site that would be exposed to construction and operational noise.

**Utilities and Service Systems**

Alternative 3 would require use of similar sanitary facilities as the proposed project and would not significantly affect water quality standards. Alternative 3 could require greater use of water supplies than the proposed project due to the increased grading and compaction that would likely be required at the site to level the surface undulations within the washes. Operational water demand for panel washing would be the same as the proposed project. The Alternative 3 area does not contain on site wells and there may not be adequate supplies of water to support construction and operation in the Alternative 3 area.

Alternative 3 has the potential for significant impacts on water supplies because there are no existing entitlements of water for the area. Further, Alternative 3 would not necessarily avoid the project’s contribution to significant and unavoidable impacts on groundwater supply due to potential future transfer or shift of the FPA of the current landowners within the subbasin and the fact that the County cannot compel actions by the Watermaster to adjust FPA or take other actions to reach equilibrium in the Baja Subarea. Alternative 3 would have greater impacts on services and utilities than the proposed project due to increased construction water demand and the potential for inadequate water supply.

**Transportation and Traffic**

The number of vehicle trips associated with construction and operation of Alternative 3 would be similar to the proposed project, and impacts would be less than significant with implementation of mitigation measure TRA-1, which required a Construction Traffic Control Plan. Transmission structures would be constructed consistent with FAA requirements and would have no impact on air traffic patterns because no public use airports are located in proximity to the Alternative 3 site. Any new access roads constructed for Alternative 3 would be designed to achieve County standards and would not increase hazards due to a design feature. No closures to U.S. 58 or I-395 would occur that may affect emergency access in the vicinity of the project. Alternative 3 impacts on transportation and traffic would be less than significant.

Alternative 3 would have less impacts on transportation and traffic due to the lower volume of traffic on local roads in proximity to the Alternative 3 site. Alternative 3 would also avoid impacts on air traffic because no public use airports are located in proximity to Alternative 3.
**Alternative 3 Summary and Feasibility**

Implementation of Alternative 3 would result in reduced impacts on agricultural resources, hazards, noise, and transportation and traffic. Implementation of Alternative 3 would result in greater impacts on aesthetics, air quality, biological resources, geology and soils, greenhouse gas emissions, hydrology and water quality, and land use than the proposed project.

Alternative 3 is located wholly on BLM-administered land and would require a BLM right-of-way grant for development, in addition to a CUP from the County for development of an overhead gen-tie line. Obtaining BLM approval would require CDFW to develop a conservation strategy for Mohave ground squirrel, which would substantially increase the cost and length of time required for permitting the project. Alternative 3 would meet some of the project objectives and is considered potentially feasible because it is located within DRECP land use areas that are suitable for solar development.

**ALTERNATIVES CONSIDERED BUT REJECTED**

The discussion below summarizes the alternatives that were considered but ultimately rejected because they do not meet basic project objectives. These alternatives were suggested during scoping or were considered by the County during the alternatives development process.

**Distributed Generation Alternative**

Distributed generation refers to the installation of small-scale solar energy facilities at individual locations at or near the point of consumption (e.g., use of solar PV panels on a business or home to generate electricity for on-site consumption). The generating capacity of a distributed generation source is significantly smaller than that of centrally located utility-scale energy generation sources and can range from generation at a single residence to larger installations for commercial or multi-unit housing applications. Distributed generation systems typically generate less than 10 MW. The distributed generation alternative would require at least 65 separate renewable energy projects at 10 MW each to provide a level of energy generation comparable to the proposed project. Finding 65 or more separate sites for development of solar power is not feasible due to the time, expense, and site control requirements associated with selecting such a large number of locations.

In order to be a viable alternative to the project, the applicant would need to own or control a sufficient amount of land to accommodate 650 MW of capacity. The applicant, however, does not currently own or control any other such sites or land in San Bernardino County. Therefore, this alternative would not meet the project objectives, it was eliminated from further consideration in this EIR.
Off-Site Alternative: North of I-15

The purpose of the Off-Site Alternative is to locate the proposed solar facility farther from neighboring residences than the proposed project. Relocation of the project to a location north of I-15 was suggested by the public during the scoping process for the EIR.

The land north of I-15 is predominantly owned by the BLM and a portion of that land is within an Area of Critical Environmental Concern (ACEC). The BLM has designated ACECs in areas with highly sensitive environmental resources. None of the land to the north of I-15 has been identified as Development Focus Area (DFA) under the Desert Renewable Energy Conservation Plan (DRECP), but BLM land use plan. The BLM will not allow solar development outside of DFAs. Development of solar facility on BLM land outside of a DFA, including the area north of I-15, would be infeasible. Relocation of the proposed project to an ACEC would also result in greater environmental impacts because the environmental resources in the project site are less sensitive due to the existing development and use of the project site.

This alternative would conflict with the DRECP generating potential environmental impacts on sensitive resources in the area. The Off-Site Alternative: North of I-15 was rejected from further consideration due to regulatory infeasibility.

Other Alternative Project Sites

During the scoping process of the EIR, the public requested considering other alternative sites for the project. The applicant considered several alternative sites for the project but rejected due to infeasibility of developing the project at the site under the current legal and regulatory framework or because the alternative sites would have greater environmental and land use impacts than the proposed project site.

Land to the north of I-15 and south of I-40 are predominantly owned by the BLM, in an ACEC area, and is not designated for renewable energy development. Locating the project in these alternative sites would conflict with the DRECP generating potential environmental impacts on sensitive resources in the area. These alternative sites were eliminated from further consideration.

Land to the west of Daggett is either owned by the military or developed with a higher density of residential use. It would be infeasible to obtain a sufficient amount of land from the military to accommodate 650 MW of capacity; therefore, alternative sites west of Daggett were eliminated from further consideration. Land to the east of Daggett is located closer to the residential areas of Newberry Springs.
**Alternative Technology: Concentrating Solar Photovoltaic**

The Concentrated Solar Power Alternative would utilize concentrated solar power (CSP) as an alternative technology to the PV technology used for the proposed project. A CSP facility would encompass approximately 4,000 acres, compared to the approximately 3,500 acres for the proposed project. All other project components including the on-site substations, battery storage, and gen-tie line would remain the same as with the proposed project.

The purpose of this alternative is to provide an alternative technology than the PV technology proposed for the project. This alternative was ultimately rejected as it would require 500 more acres to construct the solar facility than the proposed project and would result in greater environmental impacts due to the increased project development footprint and increased water use.

**Environmentally Superior Alternative**

CEQA requires that an environmentally superior alternative be identified; that is, an alternative that would result in the fewest or least significant environmental impacts. If the No Project Alternative is the environmentally superior alternative, State CEQA Guidelines Section 15126.6(e)(2) requires that another alternative that could feasibly attain most of the project’s basic objectives be chosen as the environmentally superior alternative.

The No Project Alternative is the environmentally superior alternative. However, in accordance with CEQA Guidelines Section 15126.6(e)(2), a secondary alternative must be chosen since the No Project Alternative is environmentally superior. Therefore, Alternative 2, the Reduced Footprint Alternative, is the environmentally superior alternative. Alternative 2 reduces impacts associated with the proposed project due to the avoidance of significant air quality impacts, reduced impact on sensitive biological resources, and reduced impact on residents due to residential setbacks. Alternative 2 would not result in any increase in environmental impacts. Alternative 2 also attains most or all of the basic project objectives, however it would not allow for the project to achieve its key goal of utilizing the existing interconnection capacity at the Coolwater Substations to provide approximately 650 MW of renewable energy leveraging the use of existing electrical transmission infrastructure.
This page is intentionally blank.