

Introduction

Project Overview

The Imperial Irrigation District (IID) and the U.S. Department of the Interior, Bureau of Land Management (BLM) are preparing a Draft Environmental Impact Statement/Environmental Impact Report (EIS/EIR) to assess the environmental effects of constructing, operating, and maintaining a new substation/switching station on the north side of Hobsonway west of the Blythe Power Plant, approximately 4.5 miles west of Blythe, California, to the Southern California Edison Company's (SCE's) Devers Substation, approximately 10 miles north of Palm Springs, California, a distance of approximately 118 miles. The Proposed Project will operate at either 230-kV or 500-kV and will provide increased transmission line capabilities from the proposed substation/switching station on Hobsonway to the Devers Substation to meet transmission requests.

IID is the State of California lead agency for the preparation of this EIS/EIR in compliance with the requirements of the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000 et. seq.), CEQA implementing guidelines (California Code of Regulations [CCR] Title 14, Section 15000 et. seq.), and IID's Rules and Regulations to Implement CEQA.

BLM is the federal lead agency for the preparation of this EIS/EIR in compliance with the requirements of the National Environmental Policy Act (NEPA), the Council on Environmental Quality (CEQ) regulation for implementing NEPA (40 Code of Federal Regulations [CFR] 1500 – 1508), and the BLM NEPA guidance handbook (H-1790-1).

The purpose of this document is to inform agency decision-makers and the general public about the potential adverse and beneficial environmental impacts of the Proposed Project and alternatives, and recommend mitigation measures that would reduce the significant adverse impacts to the maximum extent possible, and, where feasible, to a less than significant level. The information in an EIS or EIR does not dictate an agency's final determination on a project. However, under CEQA (Public Resources Code Section 21002.1), the state or local agency must adopt feasible mitigation measures or alternatives within its jurisdiction if they would avoid significant environmental effects identified for the Proposed Project.

The Proposed Project includes the construction and operation of a new substation/switching station and an approximately 118-mile transmission line (either double-circuit, 230-kV or single-circuit, 500-kV). The new substation/switching station would be located near Blythe, California, and the transmission line would extend from this location to the Devers Substation north of Palm Springs, California. As shown on Figure ES-1, the Proposed Project transmission line alignment would follow a generally east/west alignment from the new substation/switching station to the Devers Substation. The 230-kV transmission line option under consideration would utilize steel lattice structures for much of its alignment, however, single-steel pole structures would be used in agricultural areas to minimize disturbance of agricultural land. The 500-kV transmission line

option under consideration would use steel lattice structures along its entire route. The Proposed Project transmission line would be located along existing transmission line rights-of-way for much of its alignment, and would utilize existing access roads, requiring a limited amount of new access road construction. Substation/switching station construction would be necessary at a new facility on Hobsonway, approximately 4.5 miles west of Blythe, and substation equipment modifications would be necessary at the existing Devers Substation.

The "agency's preferred alternative" is the alternative which the BLM believes would fulfill its statutory mission and responsibilities, giving consideration to economic, environmental, technical and other factors. Based on the BLM's evaluation of Proposed Action and Alternatives, the BLM identified the Proposed Project as the "Agency Preferred Alternative."

Four alternatives to the Proposed Project are being considered, and are analyzed in this EIS/EIR: 1) Alternative A (a second northern route alternative); 2) Alternative B (a southern route alternative that would include upgrading and use of certain existing transmission facilities); 3) Alternative C (a third northern route alternative with an alignment generally parallel to and north of the Alternative A alignment); and 4) the No Action Alternative. These alternatives, and their alignments, are shown on Figure ES-1.

Alternative A would be similar in design and structure to the Proposed Project. This alternative would include the construction of a new substation/switching station on the north side of Hobsonway, west of the Blythe Power Plant near Blythe, and would include the construction of an approximately 119-mile long transmission line to the Devers Substation that would follow the same alignment as the Proposed Project with the exception being that the Alternative A route would follow Route Option A-2 west of Desert Center. Option A-2 would shift the alignment to the south to parallel the north side of the Devers-Palo Verde Transmission Line. As with the Proposed Project, the Alternative A transmission line configurations under consideration include both a double-circuit, 230-kV configuration and a single-circuit, 500-kV configuration.

Alternative B includes the construction of a new substation/switching station in the same location as that of the Proposed Project, and would interconnect this new facility with the Midway Substation (near Niland, California) with a new double-circuit, 230-kV transmission line that would generally follow the alignment of State Route 78 (SR-78) south from the new substation/switching station to the southern portion of the Chocolate Mountains before turning generally north and continuing to the Midway Substation. This transmission line would be approximately 79 miles long. In addition to these new facilities, Alternative B would require upgrading a total of approximately 35 miles of existing transmission lines south of the Devers Substation, and upgrading substation facilities at the Midway, Coachella, Mirage and Devers Substations.

Alternative C includes the construction of a new substation/switching station in the same location as that of the Proposed Project, and would interconnect this new facility with the Devers Substation in a manner similar to that of the Proposed Project. Alternative C would include the construction of a new transmission line (either double-circuit, 230-kV or single-circuit, 500-kV) that would be approximately 117 miles in length and would follow a similar alignment, although slightly to the north, of the Proposed Project alignment for much of its route.

Figure ES-1 Location of Proposed Project and Alternatives
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As required by both NEPA and CEQA, no project alternative is also considered in the analysis in this document. Additional alternatives were also considered during the initial alternatives formulation and screening process. These alternatives, and the reasons for their elimination from further consideration, are discussed in Section 2.7.

The Proposed Project and alternatives would be located within the California Desert Conservation Area (CDCA), a planning area under jurisdiction of the BLM. The CDCA Plan and amendments provide planning guidelines and land use requirements on BLM land within the CDCA. The CDCA Plan identifies designated utility corridors in which more intensive development of linear utilities is generally considered consistent with the CDCA Plan. Figure ES-2 shows designated utility corridors within the CDCA.

Because the project would be located within areas under BLM jurisdiction, construction and operation of the project requires BLM to authorize a Right-of-Way Grant. The Proposed Project and Alternatives A and C would be located within CDCA Plan-designated utility corridors, and a Right-of-Way Grant for the construction and operation of the Proposed Project or Alternatives A and C would be consistent with the CDCA Plan. Alternative B, however, would require the construction of a transmission line within the CDCA, but in areas outside of designated utility corridors. As such, for the BLM to issue a Right-of-Way Grant for construction and operation of Alternative B, an amendment to the CDCA Plan would be required or an exemption to the CDCA Plan would need to be authorized by the BLM.

Project Purpose and Need

The *California Energy Outlook: Electricity and Natural Gas Trends Report* (CEC 2001) describes the energy supply and demand trends of the past decade to provide perspective on current events. This report provides an overview of expected developments in the near future and addresses the long-term demand outlooks through 2010. The energy trend considers both electricity and natural gas developments. The report also examines electricity demand, load management, and natural gas infrastructure developments. The report estimates that demand for electrical power in the IID service area will increase at a rate of 20 to 30 megawatts (MW) annually. The report also states that California's peak electricity demand will continue to grow at about two percent per year on average.

New generation facilities have been completed in the region to the north and east of IID's service area that may provide a portion of IID's current and future requirements. These include the Griffith Energy Project in Kingman, Arizona and the South Point Energy Project north of Parker, Arizona. The Blythe Energy Project, west of Blythe, California, is under construction and will begin operation by April 2003. In addition, IID has received requests for transmission and interconnection service that may utilize the proposed transmission project.

Transmission access is the main constraint to utilizing these new generation sources to meet the increased demand for electrical power in IID's service area. IID's primary transmission system includes 92-kV, 161-kV, and 230-kV transmission lines with direct interconnections at Mirage, Imperial, Coachella Valley, Devers, and Blythe Substations. Presently, IID's access to the Western Area Power Administration (Western) transmission grid to the northeast is an existing 161-kV transmission line from the existing Blythe Substation to Niland. This existing transmission line is expected to be operating at or near its maximum capacity by the end of 2002.

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Figure ES-2 Existing BLM Designated Utility Corridors

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The basic objectives of the Proposed Project are to:

Objective 1: Ensure access to competitive generation sources that will allow IID to minimize the market price spikes, which adversely effect the region's customers.

Objective 2: Provide improved transmission access to new generation sources (e.g., the Griffith Energy Project, the South Point Energy Project, and the Blythe Energy Project) to meet the increased demands for electrical power in IID's service area and to respond to transmission service and interconnect requests.

Objective 3: Enhance system reliability by providing additional transmission line capacity to the Coachella Valley load center and, thus, reduce loading on other transmission lines.

Objective 4: Improve operational flexibility during normal as well as contingency situations.

IID proposes to satisfy these objectives by constructing and operating a new transmission line from IID's proposed Hobsonway Substation, near Blythe, California, to the existing Devers Substation, near Palm Springs, California. Operating voltages may be either 230-kV or 500-kV. The optimum operating voltage will be based on the results of system studies that are currently underway.

Consultation and Coordination

The scoping process for the Proposed Action was designed to solicit input from the public; from federal, state, and local agencies; and from other interested parties on the scope of issues that should be addressed in the Draft EIS/EIR. The scoping process is also intended to identify significant issues related to the Proposed Action.

Since the publication of the first Notice of Intent (NOI), the name of the proposal has been changed to the California Desert Southwest Transmission Project. Publication of the Draft and Final EIS will be under that name. In addition, the Proposed Project and alternatives has been revised to address comments and concerns raised during the scoping process. The scoping process for the Proposed Action is described below.

A Revised NOI describing the Proposed Action and IID's modified Proposed Project was published in the Federal Register on Tuesday, August 13, 2002 (Volume 67, Number 156, pages 52737-52738) announcing the preparation a joint EIS/EIR addressing a proposed 230kV or 500kV transmission line project and possible CDCA Plan Amendment. In accordance with NEPA, a 30-day comment period was provided for the NOI. Two public scoping meetings were held on the following dates: 1) August 14, from 7-9 p.m., at the Blythe City Council Multipurpose Room, Blythe, California; and 2) August 15, from 7-9 p.m., at the IID Board Room, La Quinta, California.

A NOI was published in the Federal Register on Monday, March 26, 2001, (Volume 66, Number 58, pages 16485-16486) announcing the preparation of a CDCA Plan Amendment and EIS for the IID's Proposed New 230-kV "BN-BS" Transmission Line Project. Two public scoping

meetings were held on the following dates: 1) March 28, from 7-10 p.m., at the IID Board Room, La Quinta, CA, and 2) March 29, from 7-10 p.m., at the Blythe City Council Multipurpose Room, Blythe, CA.

CEQA Notification

For the IID's Proposed 230-kV "BN-BS" Transmission Line Project a Notice of Preparation (NOP) was sent to the State Clearinghouse and noticed for public and agency review on Tuesday, April 24, 2001 (SCH #2001041105). Since the publication of the NOP, the name of the proposal has been changed to the Desert Southwest Transmission Project. Publication of the Draft and Final EIR will be under that name. In addition, the Proposed Project has been revised to address comments and concerns raised during the scoping process.

As discussed above, IID subsequently modified its Proposed Project and issued a Revised NOP on July 31, 2002. In accordance with CEQA, a 30-day comment period on the Revised NOP was provided.

California Desert Conservation Area Plan Amendment

In 1980 when the CDCA Plan was issued, utility corridors 2 to 5 miles wide were designated, mostly along existing pipelines and transmission lines (BLM 1980). Subsequently, several additional corridors were designated. The intent of these designations is to limit future disturbance and land use designation for utilities to previously disturbed areas in existing utility corridors. By the legislation enabling the CDCA Plan, a plan amendment is required to allow an exception to the plan's designated utility corridors.

An amendment to the CDCA Plan would not be necessary for the Proposed Project or Alternatives A and C, because the transmission lines would be located within a designated utility corridor on BLM land. However, an amendment to the CDCA Plan would be necessary for Alternative B because the Alternative B transmission line would not be located entirely within a designated utility corridor.

If the CDCA Plan is not amended, the BLM may authorize installation of a transmission line, 161-kV or larger, within existing corridors only, or the BLM may deny the project if the existing corridor option does not prove feasible. An alternative that must be considered in this EIS/EIR is the use of existing BLM designated corridors as designated in the CDCA Plan (BLM 1980 as amended) for its entire route across public land in California. The Proposed Project and Alternatives A and C, described in Section 2, meet this requirement.

Permits, Approvals, and Regulatory Requirements

Numerous federal, state and local regulations and permit requirements would be applicable to construction and/or operation of the Proposed Project and alternatives. IID or its contractors would be required to comply with all applicable requirements, as well as obtain and comply with terms contained within required permits.

Alternatives Including the Proposed Action

The Proposed Action consists of the issuance of several federal authorizations, including a Right-of-Way Grant that would allow the development of IID’s Proposed Project, a new transmission line. The transmission line would connect to a new substation/switching station on the north side of Hobsonway adjacent to the Blythe Power Plant and is designed to connect existing and future system facilities in the vicinity of Blythe, California, to SCE’s Devers Substation near Palm Springs, California. The Proposed Project would operate at either 230-kV or 500-kV and would provide increased transmission line capabilities to meet transmission requests.

Proposed Project

IID proposes to construct, operate, and maintain a new, approximately 118-mile transmission line from a new substation/switching station located on the north side of Hobsonway, west of the existing Blythe Power Plant, approximately 4.5 miles west of Blythe, California, to SCE Devers Substation, approximately 10 miles north of Palm Springs, California. The Proposed Project would operate at either 230-kV or 500-kV and would provide increased transmission line capabilities from the proposed new substation/switching station on Hobsonway to the Devers Substation to meet transmission requests. For most of its alignment the transmission line would be located adjacent to SCE’s existing 500-kV Devers-Palo Verde Transmission Line. In addition, the Proposed Project would include a new substation/switching station located on Dillon Road adjacent to the existing transmission line facilities near Indio, California. This new substation/switching station on Hobsonway would provide a connection point with the Proposed Project transmission line and IID’s existing Coachella Substation. The proposed location of the new substations/switching stations, connection facilities, and Proposed Project transmission line route is shown on Figure ES-1. As discussed in Section 1, the Proposed Project transmission line would be located entirely within a BLM-designated utility corridor; therefore, an amendment to the CDCA Plan would not be required. However, a Right-of-Way Grant from the BLM for construction and operation activities associated with the Proposed Project transmission line would be necessary for areas within the CDCA.

Table ES-1 provides a summary of the primary components of the Proposed Project.

Table ES-1 Summary of Proposed Project Components	
Proposed Route and Right-of-Way	<ul style="list-style-type: none"> • Transmission Line Length: approximately 118 miles. • Connection Point: IID’s proposed new substation/switching station on Hobsonway. • Connection Point: IID’s existing KN-KS line adjacent to Dillon Road near Coachella, CA. • Connection Point: IID’s existing Coachella Substation near Coachella, CA. • Termination Point: SCE’s Devers Substation near Palm Springs, CA. • Right-of-Way Width: 300 feet. The right-of-way width would be reduced in specific locations to mitigate potential impacts to resources (e.g., historic trails, adjacent land restrictions, existing roads and highways, and biological and cultural resources). • Total Right-of-Way Acreage: approximately 4,290 acres (does not include construction access roads).
Transmission Line Facilities (single-circuit, 500-kV)	<ul style="list-style-type: none"> • Conductors: One 3-phase AC circuit consisting of two 1.5 to 2-inch ACSR conductors per phase. • Minimum Conductor Distance from Ground: 30 feet at 60 °F and 27 feet at the maximum operating temperature.

**Table ES-1
Summary of Proposed Project Components**

- Shield Wires: Two 1/2 to 3/4-inch diameter wire(s) for steel lattice.
- Transmission Line Tower Types:
 - Steel Lattice Tower along entire route.
 - Structure Heights (approximate): Steel Lattice – 100 to 180 feet.
- Average Distance between Towers: Steel Lattice – 1,400 feet*.
- Total Number of Towers (approximate): 430 – 480*.

Transmission Line Facilities (double-circuit, 230-kV)

- Conductors: Two 3-phase AC circuits consisting of two 1.5 to 2-inch ACSR conductors per phase.
- Minimum Conductor Distance from Ground: 30 feet at 60 °F and 27 feet at the maximum operating temperature.
- Shield Wires: One for single pole designs and one for steel lattice designs, 3/8 to 3/4-inch-diameter wire(s).
- Transmission Line Tower Types:
 - Steel Lattice Tower along entire route, with the exception of agricultural areas and local areas where Single-Pole steel structures might be used.
 - Structure Heights (approximate): Steel Lattice and Single Pole – 100 to 195 feet.
- Average Distance between Towers: Steel Lattice and Single Pole – 1,200 feet*.
- Total Number of Towers (approximate): 500 - 550*.

Transmission Line Facilities (single-circuit, 230-kV)

- Conductors: One 3-phase AC circuits consisting of two 1.5 to 2-inch ACSR conductors per phase.
- Minimum Conductor Distance from Ground: 30 feet at 60 °F and 27 feet at the maximum operating temperature.
- Shield Wires: Two 3/8 to 3/4-inch diameter wire(s) for single H-frame designs
- Transmission Line Tower Type:
 - Tubular Steel H-frame
 - Structure Heights (approximate): 75 to 100 feet.
- Average Distance between Towers: 800 feet*.

Total Number of Towers (approximate): 8*.

Substation Facilities

- A new substation/switching station on Hobsonway, requiring a total area of approximately 25 acres, would be constructed immediately west of the Blythe Power Plant near Blythe, California. The Proposed Project transmission line would connect at this facility which would accommodate two 230-kV circuits, or one 500-kV circuit depending on the final determination of the Proposed Project transmission line configuration.
- A new substation/switching station on Dillon Road, requiring a total area of approximately 25 acres, would be constructed west of Dillon Road adjacent to the existing transmission line facilities near Indio, California. The new substation/switching station would provide a connection point with the Proposed Project transmission line and IID’s existing Coachella Substation.
- Coachella Substation: Upgrades to existing facilities to accommodate increased transmission service.
- Devers Substation: Facilities would be expanded at the existing Devers Substation, north of Palm Springs, California, to accommodate interconnection of the Proposed Project transmission line and to reconfigure existing transmission line approaches to the substation to provide the necessary clearances between adjacent transmission lines and other facilities.

Communications Facilities

- Systems: Digital Radio System, microwave, VHF/UHF radio, and Fiber Optic Ground Wire (OPGW).
- Functions: Communications for fault detection, line protection, SCADA, and two-way voice communication.

*The exact quantity and placement of the structures depends on the final detailed design of the transmission line which is influenced by the terrain, land use, and economics. Alignment options may also slightly increase or decrease the quantity of structures.

Constructing a transmission line includes identifying and constructing access roads, rights-of-way and structure sites clearing (including construction yards), installing foundations, assembling and erecting the structures, clearing, pulling (i.e., stringing transmission line conductors through the structures), tensioning and splicing sites, installing ground wires and conductors, installing counterpoise/ground rods, and cleanup and site reclamation. Various phases of construction may be supported by the use of helicopters to minimize--and eliminate in some cases--the need to travel along the right-of-way. The use of helicopters is especially beneficial for conductor installation activities. Table ES-2 lists temporary and permanent disturbance for the Proposed Project.

Table ES-2			
Proposed Project Land Disturbance by Project Feature			
Project Feature	Acres Disturbed During Construction	Acres to be Restored	Acres Permanently Disturbed
Structure Sites	914 – 1,020	866 - 966	48 – 54 ^a
Access Roads	26 ^b	6	20
Staging Areas	28	28	0
Pull Sites ^c	63	63	0
New Substation/Switching Stations (2)	50		50
Devers Substation (expansion)	5		5
Total Estimated	894 – 1,125	767 - 986	127 - 139

- ^a Area at structure sites include short spur roads from the existing Devers-Palo Verde Transmission Line maintenance road.
- ^b New access roads would be required and some existing roads would require upgrades to allow passage of heavy equipment to set structures and deliver concrete.
- ^c Pull sites are areas at which equipment utilized for installation of transmission line wires would be temporarily located during construction.

Alternative A – Second Northern Route Alternative

Alternative A would be similar in design and structure to the Proposed Project. This alternative would include the construction of a new substation/switching station on the north side of Hobsonway west of the Blythe Power Plant near Blythe (also shown on Figure ES-1), and would include the construction of an approximately 119-mile long transmission line to the Devers Substation that would follow the same alignment as the Proposed Project except that the Alternative A route would follow Route Option A-2 west of Desert Center. Option A-2 would shift the alignment to the south to parallel the north side of the Devers-Palo Verde Transmission Line. As with the Proposed Project, Alternative A transmission line configurations under consideration include both a double-circuit 230-kV configuration and a single-circuit 500-kV configuration.

As with the Proposed Project, the Alternative A transmission line would be located entirely within a BLM-designated utility corridor; therefore, a CDCA Plan amendment would not be required. The Alternative A transmission line alignment is shown on Figure ES-1. The BLM-designated utility corridors in the CDCA are shown on Figure ES-2.

The structural components for Alternative A would be the same as those described for the Proposed Project as described in Table ES-1.

Project construction activities associated with Alternative A would be the same as those described for the Proposed Project. Estimated land disturbance would be the same as that identified for the Proposed Project (see Table ES-2).

Alternative B– Southern Route Alternative

Alternative B includes the construction of the new substation/switching station on the north side of Hobsonway as described for the Proposed Project, and the construction of a new approximately 79-mile, 230-kV transmission line between the new substation/switching station and the existing Midway Substation near Niland. In addition to the construction of the new substation/switching station, the new transmission line, and the equipment upgrades at the Midway Substation, Alternative B would require upgrading segments of IID’s existing KN-KS transmission line and related facilities between the existing Coachella and Mirage Substations and between the Mirage and Devers Substations. This upgrade would enable the final interconnection between the new substation/switching station and the Devers Substation commensurate with the Proposed Project.

Approximately 40 miles of the new transmission line right-of-way would be located within a BLM-designated utility corridor. However, 38 miles of the right-of-way would not be located within a BLM-designated utility corridor; therefore, an amendment to the CDCA Plan would be required. Figure ES-1 shows the locations of the new substation/switching station on Hobsonway, the Alternative B transmission line alignment, and the section of IID’s existing KN-KS transmission line that would be upgraded. The BLM-designated utility corridors in the CDCA are shown on Figure ES-2.

Table ES-3 summarizes the various components of Alternative B.

Table ES-3 Summary of Alternative B Components	
Proposed Route and Right-of-Way	<ul style="list-style-type: none"> • Route Length: 79 miles (plus upgrades to an additional 35 miles of existing transmission lines). • System Interconnection Point: New substation/switching station on Hobsonway. • Termination Point: Midway Substation near Niland, CA. (Upgrades to segments of existing transmission lines between Coachella, Mirage, and Devers substations would achieve “interconnection” with Devers Substation.) • Right-of-Way Width: 300 feet. The right-of-way width would be reduced in specific locations to mitigate potential impacts to resources (e.g., historic trails, existing roads and highways, and biological and cultural resources). • Total Right-of-Way Acreage: 2,790 acres (does not include construction access roads).
Transmission Line Facilities (double circuit, 230-kV)	<ul style="list-style-type: none"> • Conductors: Two, 3-phase AC circuits consisting of one or two 1-inch ACSR conductors per phase. • Minimum Conductor Distance from Ground: 30 feet at 60 °F and 27 feet at the maximum operating temperature. • Shield Wires: One for single pole designs and two for H-frame designs of 3/8 to 3/4-inch-diameter wire(s). • Transmission Line Tower Types: <ul style="list-style-type: none"> - Single-pole steel structures entire route, with the exception of other transmission line crossings. - Structure Heights (approximate): Single Pole – 100 to 125 feet; H-frame – 45 to 65 feet.

**Table ES-3
Summary of Alternative B Components**

- Distance between Towers (approximate): Single Pole – 800 to 1,200 feet.
- Total Number of Towers (approximate): 354 - 465 depending on final design.
- Total Number of Towers to be upgraded (approximate): 121
- Number of New “Inset” Towers in Upgrade Segments: 7

Substation Facilities

Expansion of existing facilities at substations would be necessary for Alternative B. The following modifications at existing substations, or at substations being completed as part of other projects, would be necessary:

- A new substation/switching station on Hobsonway, requiring a total area of approximately 25 acres, would be constructed west of the Blythe Power Plant near Blythe, California. The Proposed Project transmission line would connect at this facility which would accommodate two 230-kV circuits, or one 500-kV circuit depending on the final determination of the Proposed Project transmission line configuration.
- Midway Substation near Niland, CA: Existing facilities would be expanded at the existing Midway Substation to accommodate the new transmission line and to rearrange existing transmission line approaches to the substation to provide the necessary clearances between adjacent lines and other facilities.
- Coachella Substation: Existing facilities would be upgraded. All improvements would be within the existing footprint of the substation.
- Mirage Substation: Existing facilities would be expanded. All improvements would be within the existing footprint of the substation.
- Devers Substation: Facilities would be expanded at the existing Devers Substation, north of Palm Springs, California, to accommodate interconnection of the Proposed Project transmission line, reconfigure existing transmission line approaches to the substation, and provide the necessary clearances between adjacent transmission lines and other facilities.

Communications Facilities

- Systems: Digital Radio System, VHF/UHF radio.
- Functions: Communications for fault detection, line protection, SCADA, and two-way voice communication.

Project construction activities associated with Alternative B would be similar to those described for the Proposed Project. Table ES-4 lists estimated land disturbance for Alternative B.

**Table ES-4
Alternative B Land Disturbance by Project Feature**

Project Feature	Acres Disturbed During Construction	Acres to be Restored	Acres Permanently Disturbed
Structure Sites	494 - 657	469 - 624	25 – 33 ^a
Existing Access Roads	11 ^b	9	2
New Access Roads ^c	24	12	12
Staging Areas	30	30	0
Pull Sites	43	43	0
New Substation/Switching Station	25		25
Upgrade Segment 1	25	25	0
Upgrade Segment 2	10	8	2
Devers Substation (expansion)	5		5
Total Estimated	667 – 830	596 - 751	71 – 79

^a Area at structure sites includes short access road from the existing maintenance roads.

^b Existing roads would require upgrades to allow passage of heavy equipment to set structures and deliver concrete.

^c Approximately 10 miles of new roads, 20 feet wide, would be required to access structure sites for construction. It is estimated that 50 percent of the roads would be restored.

Alternative C – Third Northern Route Alternative

Alternative C would be similar in design and structure to the Proposed Project. This alternative would include the construction, operation, and maintenance of a new, approximately 117-mile-long, transmission line from a new substation/switching station located on the north side of Hobsonway west of the Blythe Power Plant, approximately 4.5 miles west of Blythe, California, to SCE’s Devers Substation, approximately 10 miles north of Palm Springs, California (also shown on Figure ES-1). However, Alternative C would generally parallel I-10 for much of its length (the Alternative C transmission line alignment is located at varying distances – approximately 1 to 4 miles – north of the Proposed Project transmission line alignment). As with the Proposed Project, the Alternative C transmission line configurations under consideration include both a double-circuit, 230-kV configuration and a single-circuit, 500-kV configuration.

As with the Proposed Project, the Alternative C transmission line would be located entirely within a BLM-designated utility corridor in areas of the CDCA; therefore, a CDCA Plan amendment would not be required. The Alternative C transmission line alignment is shown on Figure ES-1. The BLM-designated utility corridors in the CDCA are shown on Figure ES-2.

Table ES-5 summarizes the various components of Alternative C. Many of the components would be similar to those described for the Proposed Project.

Table ES-5 Summary of Alternative C Components
<p>Proposed Route and Right-of-Way</p> <ul style="list-style-type: none"> • Transmission Line Length: approximately 117 miles. • Connection Point: IID’s proposed new substation/switching station on Hobsonway, and local transmission needed for interconnection to existing facilities near Blythe, CA. • Connection Point: IID’s existing KN-KS line adjacent to Dillon Road near Coachella, CA. • Connection Point: IID’s existing Coachella Substation near Coachella, CA. • Termination Point: SCE’s Devers Substation near Palm Springs, CA. • Right-of-Way Width: 300 feet. The right-of-way width would be reduced in specific locations to mitigate potential impacts to resources (e.g., historic trails, adjacent land restrictions, existing roads and highways, and biological and cultural resources). • Total Right-of-Way Acreage: approximately 4,250 acres, including construction access roads and staging areas.
<p>Transmission Line Facilities (single-circuit, 500-kV)</p> <ul style="list-style-type: none"> • Conductors: One 3-phase AC circuit consisting of two 1.5 to 2-inch ACSR conductors per phase. • Minimum Conductor Distance from Ground: 30 feet at 60 °F and 27 feet at the maximum operating temperature. • Shield Wires: Two 1/2 to 3/4-inch-diameter wire(s) for steel lattice. • Transmission Line Tower Types: <ul style="list-style-type: none"> - Steel Lattice Tower along entire route. - Structure Heights (approximate): Steel Lattice – 100 to 180 feet. • Average Distance between Towers: Steel Lattice – 1,400 feet*. • Total Number of Towers (approximate): 405 – 440*.
<p>Transmission Line Facilities (double-circuit 230-kV)</p> <ul style="list-style-type: none"> • Conductors: Two 3-phase AC circuits consisting of two 2-inch ACSR conductors per phase. • Minimum Conductor Distance from Ground: 30 feet at 60 °F and 27 feet at the maximum operating temperature. • Shield Wires: One for single pole designs and one for steel lattice designs of 3/8 to 3/4-inch-diameter wire(s). • Transmission Line Tower Types: <ul style="list-style-type: none"> - Steel Lattice Tower along entire route, with the exception of agricultural areas and local areas where Single-Pole steel structures might be used. - Structure Heights (approximate): Steel Lattice and Single Pole – 100 to 195 feet. • Average Distance between Towers: Steel Lattice and Single Pole – 1,200 feet*. • Total Number of Towers (approximate): 525 - 560*.

**Table ES-5
Summary of Alternative C Components**

Substation Facilities

- A new substation/switching station on Hobsonway, requiring a total area of approximately 25 acres, would be constructed immediately west of the Blythe Power Plant near Blythe, California. The Proposed Project transmission line would connect at this facility which would accommodate two 230-kV circuits, or one 500-kV circuit depending on the final determination of the Proposed Project transmission line configuration.
- A new substation/switching station on Dillon Road, requiring a total area of approximately 25 acres, would be constructed west of Dillon Road adjacent to the existing transmission line facilities near Indio, California. The new substation/switching station would provide a connection point with the Proposed Project transmission line and IID's existing Coachella Substation.
- Coachella Substation: Upgrades to existing facilities to accommodate increased transmission service.
- Devers Substation: Facilities would be expanded at the existing Devers Substation, north of Palm Springs, California, to accommodate interconnection of the Proposed Project transmission line and to reconfigure existing transmission line approaches to the substation to provide the necessary clearances between adjacent transmission lines and other facilities.

Communications Facilities

- Systems: Digital Radio System, microwave, VHF/UHF radio.
- Functions: Communications for fault detection, line protection, SCADA, two-way voice communication.

*The exact quantity and placement of the structures depends on the final detailed design of the transmission line, which is influenced by the terrain, land use, and economics. Alignment options may also slightly increase or decrease the quantity of structures.

Project construction activities associated with Alternative C would be similar to those described for the Proposed Project. Table ES-6 lists estimated land disturbance for Alternative C.

**Table ES-6
Alternative C Land Disturbance by Project Feature**

Project Feature	Acres Disturbed During Construction	Acres to be Restored	Acres Permanently Disturbed
Structure Sites	701 – 936	665 - 888	36 – 48 ^a
Access Roads	20 ^b	7	13
Staging Areas	28	28	0
Pull Sites	63	63	0
New substation/switching station	50		50
Devers Substation (expansion)	5		5
Total Estimated	892 - 1127	763 - 986	129 - 141

^a. Area at structure sites include short access road from the existing maintenance roads.

^b. Existing roads will require upgrades to allow passage of heavy equipment to set structures and deliver concrete.

No Action Alternative

Under the No Action Alternative, the BLM would not issue a Right-of-Way Grant for the construction of the Proposed Project. Without the project, it is likely that in the future it would be necessary to occasionally shed some load to avoid overloading circuits and transformers and unacceptable low voltages in various IID service areas. The No Action Alternative does not address the current or growing demand for electricity and could result in shortages of electricity within IID's service areas. Under this alternative, structures and hardware would continue to be repaired and/or replaced as required during regular maintenance operations and in response to emergency outages on the transmission lines and at the substations. These repairs would also have to be made with increasing frequency as the facilities increase in age.

Alternatives Screening

Since the Federal actions associated with the development of the Proposed Project are limited primarily to the issuance of applicable permits necessary for the construction and operation of the Project, alternatives to these actions are similarly limited. However, a range of potential alternatives to the Proposed Project were considered and evaluated, as discussed below, to consider alternatives projects that may avoid or minimize potential adverse effects of the Proposed Project. Potential alternatives to the Proposed Project were identified on the basis of issues and concerns identified during the NEPA and CEQA scoping process.

The alternatives screening process consisted of three steps:

Step 1:

Identify the basic objectives of the Proposed Project.

Step 2:

Identify the primary environmental issues associated with the construction and operation of the Proposed Project.

Step 3:

Identify a reasonable range of potential alternatives and evaluate each alternative using the following criteria:

- Potential to provide a clear environmental advantage over the Proposed Project;
- Technical and regulatory feasibility; and
- Consistency with IID's objectives, the project's purpose and need, and public policy objectives.

Alternatives that met the screening criteria of Step 3 were carried forward for detailed analysis in the Draft EIS/EIR. Those alternatives that did not meet both criteria were not evaluated further. The particular reasons for removing them from consideration are provided in Table 2-12.

Summary of Impacts and Mitigation Measures

Section 3 of the EIS/EIR presents analyses of the potential impacts of the Proposed Project and alternatives. Table ES-7 provides a summary of these potential impacts and mitigation measures to reduce or eliminate such impacts.