

**FINDING OF NO SIGNIFICANT IMPACT**  
**Southern California Edison's Lugo-Victorville 500 kV Transmission Line Special Protection Scheme (LVRAS)<sup>1</sup> in Mojave National Preserve**  
**National Park Service, Department of the Interior**  
**Mojave National Preserve**

---

## **INTRODUCTION**

This Finding of No Significant Impact (FONSI) has been prepared, in accordance with the National Environmental Protection Act (NEPA), for Southern California Edison's Las Vegas-Victorville Remedial Action Scheme (LVRAS) in Mojave National Preserve and Environmental Assessment (EA), San Bernardino County, California. The EA was completed by the Bureau of Land Management (BLM) with input from the National Park Service (NPS) as a cooperating federal agency. The NPS is adopting the EA as the basis for a FONSI and decision on the NPS action. The FONSI, along with the EA and Errata Sheet, comprise the complete record of environmental impact analysis for the project.

This document describes the Selected Alternative and provides a brief explanation of why it will have no significant effects on the human environment (CFR Title 41 § 1500-1508). With the Selected Alternative of the EA, Southern California Edison (SCE) can ensure reliable connection and integration of multiple renewable and non-renewable energy generation projects in the Southern Nevada/Eastern California area onto the electric grid and prevent thermal overloading on the Lugo-Victorville 500 kV Transmission Line which is jointly owned by SCE and Los Angeles Department of Water and Power. The Lugo-Victorville 500 kV Transmission Line traverses the length of Mojave National Preserve (Preserve) and extends beyond its eastern and western boundaries onto Bureau of Land Management lands.

## **PURPOSE AND NEED FOR ACTION**

The purpose of the action is to reliably interconnect and integrate multiple renewable and non-renewable generation facilities in southern Californian and southern Nevada. The intent of the EA is to analyze those impacts to the natural and cultural resources of both BLM and NPS lands. The analysis will determine whether the BLM will renew and amend three right-of-way (ROW) grants, and the NPS will issue a right-of-way permit for continued operation of the transmission corridor, on their respective lands.

## ***ALTERNATIVES***

### **Selection of the Preferred Alternative**

The NPS selects Alternative 1 for implementation (identified as the Proposed Action in the EA). The Selected Alternative achieves SCE compliance with Western Electric

---

<sup>1</sup> Southern California Edison's LVRAS project is entitled the Las Vegas-Victorville Remedial Action Scheme, a major construction project on SCE's Eldorado-Lugo-Mohave 500 kV Transmission Lines..

Coordinating Council planning criteria and National American Electric Reliability Corporation standard PRC-012-1 Requirement 1.3. The NPS will issue a special use permit for construction in Mojave National Preserve. Construction specifics include:

1. Remove and replace (upgrade) existing overhead ground wire (OHGW) with optical ground wire (OPGW) across 84.5 miles of the existing SCE Eldorado-Lugo 500 kV Transmission Line between SCE's Eldorado Substation (Nevada) and Pisgah Substation (California). The portion of the Eldorado-Lugo 500 kV Transmission Line route for the project begins at M152-T2 near Nipton Road in Clark County (Nevada), and ends at M68-T3 near the existing Pisgah Substation in San Bernardino (California). OPGW would be installed in continuous segments, depending on various factors including line direction, inclination, and accessibility. The Eldorado-Lugo 500 kV Transmission Line traverses 51.3 miles of NPS lands in Mojave National Preserve.
2. In the Preserve, the project area includes 237 transmission tower sites; 31 helicopter landing zones, 17 pulling-tensioning-stringing sites, 16 optical ground wire modification poles, and six guard poles. The Proposed Action would temporarily impact 13.24 acres and permanently impact 0.17 acres in the Preserve.
3. Work would occur at SCE's Cima Substation in the Preserve. SCE owns the property on which the substation lies. LVRAS tasks include trenching on NPS land from tower M127-T6 to SCE property and the existing Cima Substation fence line, then into the substation; installation of two manholes would be placed outside the substation, within roughly 30 feet from fence line (one per conduit path).
4. Construction activities include temporary Best Management Practices (BMPs), project and contractor equipment and material storage areas, office trailers, portable toilets/restroom, water tanks, generators, lighting, helicopter landing areas, fueling stations, fencing, roll-off trash container, vehicle parking, equipment repair areas, tool storage trailers, onsite security, and security camera system. They may also include contractor equipment/materials delivery and storage, as required; grading activities to improve existing access roads and site preparation; removal of existing hardware and wires; installation of OPGW, ADSS, and OFNR cable; installation, maintenance, and removal of guard poles and other permit-related requirements; splicing OPGW; material salvage, disposal, and recycling; underground construction activities; and operation of construction equipment and vehicles, including helicopters. Construction would generally occur between 7:00 am and 7:00 pm each day.

## Other Alternatives Considered

The No Action Alternative proposed to maintain the status quo. SCE's Eldorado-Lugo 500 kV Transmission Line would not be upgraded; no associated improvements would be constructed. The National Park Service would issue a right-of-way permit for SCE to continue existing operation of its transmission facilities on Mojave National Preserve lands.

Alternative 2 proposed for the BLM to take a similar action to the NPS' under No Action. The BLM would renew a right-of-way grant for the Eldorado-Lugo 500 kV transmission line right-of-way without upgrades or improvements. The BLM would also renew a ROW grant for SCE's Hector 12 kV distribution line in conformance with FLPMA. No additional action would be taken by the NPS.

### **Decision Rationale**

The Selected Alternative meets the purpose and need of the project while preserving existing Preserve resources. Transmission lines are part of essential critical infrastructure. SCE can continue to provide reliable electric transmission to the energy grid. Simultaneously, the NPS can provide maximal protection to the natural and cultural resources of Mojave National Preserve and minimize impacts to the Mojave Wilderness. The No Action alternative would not mitigate potential vulnerabilities to the power grid, and Alternative 2 would not have impacts, beneficial or adverse, to the Preserve.

### **Why the Selected Alternative Will Not Have a Significant Effect on the Human Environment**

NEPA regulations define significance as requiring the consideration of both the context and intensity of an action (40 CFR 1508.27):

- (a) Context includes geography, baseline conditions, affected interests, agency mandate, and duration and timing.
- (b) Intensity refers to the severity of impact.

The following 10 criteria are included in the Council on Environmental Quality's NEPA regulations definition of the term "significantly" (40 CFR 1508.27) and were used to determine if the Selected Alternative will result in significant effects.

*Impacts that may be both beneficial and adverse. A significant effect may exist even if the federal agency believes that on balance the effect may be beneficial.*

The Selected Alternative allows the project proponent, SCE, to maintain and upgrade its transmission lines, as specified in the Preserve' enabling legislation, the California Desert Protection Act of 1994. It will also have beneficial impacts on the resources in and adjacent to the project area by deterring potential thermal overload of the transmission lines. Ecosystems native to the eastern Mojave Desert will retain values such as desert bighorn sheep habitat and migration corridors; desert tortoise habitat – in particular, critical habitat as defined in the Desert Tortoise Recovery Plan (revised 2011,

US Fish & Wildlife Service); and mature Joshua Tree forests. The limited but permanent intrusion of high-voltage transmission lines and the considerable, if temporary, disturbance associated with construction is counterbalanced by the long-term benefits of LVRAS – improved reliability to the electric grid and reduced risk of thermal overloading and potential associated wildfires.

*The degree to which the Selected Alternative affects public health and safety.*

The Selected Alternative will reliably interconnect and integrate multiple renewable and non-renewable generation facilities in eastern California and southern Nevada. Improved reliability of the power grid will ensure improved public health and safety both in Mojave National Preserve and for the greater good. Transmission line upgrades will allow SCE to perform generation tripping during unanticipated line losses. At the completion of construction, SCE will have met Western Electric Coordinating Council planning criteria and National American Electric Reliability Corporation standard PRC-012-1 Requirement 1.3.

*Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.*

The Selected Alternative would not result in impacts within, or in proximity to wetlands, wild and scenic rivers, or prime farmlands. Mojave National Preserve has a varied landscape of sand dunes, mountain ranges, dry lakebeds, lava flows, cinder cones, Joshua tree forests, and far-reaching vistas. The Preserve is known for its extremely dark night skies. The NPS continues to permit cattle grazing in the Preserve, a land use that dates to the 19<sup>th</sup> and early 20<sup>th</sup> centuries; active grazing allotments will not be affected by the LVRAS project. The Eldorado-Lugo 500kV transmission line corridor enters the Preserve at Ivanpah Valley, deemed Category I critical habitat for the desert tortoise (*Gopherus agassizii mohavensis*). On Cima Dome and Shadow Valley, the corridor crosses through one of the largest, densest populations of Joshua trees in the world, then continues across the Cinder Cones/Lava Field, and through outstanding habitat for desert bighorn sheep in the Old Dad Mountains. These areas of the Preserve are also home to numerous historic sites from early mining, ranching, homesteading and railroading representative of the history of the western frontier. These historic sites are at enough distance away from the transmission corridor to be unaffected by the LVRAS project.

*Wilderness and Wilderness Character*

The 1994 CDPA, which established the Preserve, also designated nearly half of the land area in the Preserve (804,949 acres) as wilderness. The NPS manages the “Mojave Wilderness” in accordance with the 1964 Wilderness Act, the CDPA, NPS *Management Policies 2006*, and DO-41: *Wilderness Stewardship*. The Mojave Wilderness is bordered by the BLM’s Kelso Dunes Wilderness Area and Bristol Mountains Wilderness Area to the west.

SCE's Eldorado-Lugo, or Las Vegas-Victorville, 500 kV Transmission Line corridor lies between, but is excluded from, designated wilderness areas. While helicopters are an integral part of the LVRAS project, they will remain outside of wilderness. SCE has identified helicopter landing zones within their existing ROW corridor and at existing locations outside of the Mojave Wilderness. The ROW access road and most of the spur roads to each transmission tower, lie within this 180' wide corridor. One spur road, to tower M107-T1, follows local topography; in doing so, it crosses into wilderness for 0.17 miles. It is needed to transport personnel, heavy equipment (e.g., bucket cranes) and materials to the tower to facilitate the slinging operation in coordination with the aircraft, as well as the rest of the installation work. The transmission towers are not in wilderness.

A minimum requirements analysis was completed to determine the minimum tool necessary to protect the values of the Mojave Wilderness. The minimum tool was determined to be use of the existing spur road to facilitate construction requirements of the project. The action includes installation of removable wilderness barriers to the spur road for non-SCE or -SCE contractor personnel. Similar barriers have been effective in deterring wilderness violations in other parts of the Preserve.

*The degree to which the effects on the quality of the human environment are likely to be highly controversial.*

No highly controversial effects were identified during preparation of the EA or during the public scoping and EA review periods.

*The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.*

No highly uncertain, unique, or unknown risks were identified during preparation of the EA or during the public scoping and review periods.

*The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.*

The Selected Alternative does not establish an NPS precedent for future actions with significant effects or represent a decision in principle about a future consideration. It allows the NPS to follow precedent previously set by the 1994 California Desert Protection Act which allows for SCE to operate, maintain, and upgrade existing transmission lines in Mojave National Preserve. The Selected Alternative will not result in significant effects from a future action.

*Whether the action is related to other actions with individually insignificant but cumulatively significant impacts. Significance exists if it is reasonable to anticipate a cumulatively significant impact on the environment. Significance cannot be*

*avoided by terming an action temporary or by breaking it down into small component parts.*

The impacts of the Selected Alternative on each impact topic were identified in the EA. Cumulative impacts on each impact topic were also identified; none will have cumulatively significant effects.

*The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.*

Impacts to all known cultural resources shall be avoided through implementation of BLM management conditions and Cultural Resource Management Plan. Where the project area overlaps with areas sensitive for the presence of buried and currently unknown resources, monitoring will be required, and any resources discovered shall be treated appropriately. Within Mojave National Preserve, prehistoric and historic cultural resources identified by survey lie outside of both the project work areas and the Area of Potential Effect (APE). Therefore, the Selected Alternative will not result in impairment to the Preserve's cultural resources.

*The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.*

As discussed above, about half of the Preserve's area is designated as wilderness and half is designated as critical habitat for the federally threatened Mojave Desert tortoise (*Gopherus agassizii*). The Las Vegas-Victorville 500 kV Transmission Lines cross through desert tortoise critical habitat in Ivanpah Valley, Shadow Valley, and Cima Dome. Construction activity in desert tortoise habitat during active season (March 1 through October 31) and during active periods (early mornings and late afternoons during active season) will require onsite biological monitors and enforcement of protective measures as described in the Programmatic Biological Opinion for Activities in the Mojave National Preserve, San Bernardino County, California issued to by the US Fish and Wildlife Service (August 7, 2019).

*Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment.*

The Selected Alternative violates no federal, state, or local environmental protection laws.

## **PUBLIC INVOLVEMENT AND AGENCY CONSULTATION**

### **Scoping**

Beginning in June 2016, SCE initiated discussions with the Bureau of Land Management, National Park Service, Bureau of Reclamation, US Fish and Wildlife

Service, and California Department of Fish & Wildlife regarding several major construction projects to upgrade the electric grid. The BLM took on the role of lead federal agency for NEPA and NHPA compliance. Through a Memorandum of Understanding, the NPS Mojave National Preserve agreed to become a cooperating agency. Interagency cooperation was facilitated by bi-weekly conference calls to complete National Historic Preservation Act, Section 106 consultation; Endangered Species Act, Section 7 consultation; and the National Environmental Policy Act Environmental Assessment pathway.

The public scoping process began October 18, 2019, with the Bureau of Land Management publishing a notice on its online NEPA Register, reference DOI-BLM-CA-D080-2020-0001-EA.

## Review of the Environmental Assessment

On February 28, 2020, the BLM published the EA for this project for public review and comment.

<https://eplanning.blm.gov/epl-front-office/eplanning/projectSummary.do?methodName=renderDefaultProjectSummary&projectId=1502126>

The BLM accepted comments through March 31, 2020. Two letters were submitted – one with minor corrections, the other with comments regarding desert tortoise protection and general organization of the EA and supporting documents. The BLM resolved these issues in the EA.

## MITIGATION

**Table of Adaptive Management & Mitigation Measures**

| Resource Area            | Mitigation   | Responsible Party                |
|--------------------------|--|----------------------------------|
| Wilderness               | The spur road to one transmission tower crosses into wilderness due to the localized topography. A Minimum Requirements Analysis must be completed to determine the minimum tool necessary to preserve wilderness character.   | NPS,<br>Mojave National Preserve |
| Desert Tortoise          | Each construction crew must have an on-site biological monitor to survey and monitor for desert tortoise, and to implement reasonable and prudent measures and terms and conditions of the Biological Opinion for Activities in the Mojave National Preserve, San Bernardino County, California. | SCE                              |
| Desert Tortoise          | All on-site personnel must complete desert tortoise orientation training prior to initiating work in Mojave National Preserve. The training materials and schedule must be approved by the National Park Service. This can be combined with an orientation to Mojave National Preserve.          | SCE                              |
| Mojave National Preserve | All on-site personnel must complete an orientation to Mojave National Preserve. The training materials and schedule must   | SCE                              |



| Resource Area | Mitigation  | Responsible Party |
|---------------|---|-------------------|
|               | be approved by the National Park Service. This can be combined with an orientation to desert tortoise.  |                   |
| Nesting Birds | To prevent undue harm to nesting birds, construction activity disturbance and habitat-altering activities or portions of activities should be scheduled outside bird breeding season. In upland desert habitats and ephemeral washes containing upland species, the season generally occurs between March 15th - August 1st. If an activity that may disturb breeding activity or alter any breeding habitat must occur during the breeding season, a qualified biologist must survey the area for nests prior to commencement of such construction activities. This shall include burrowing and ground nesting species in addition to those nesting in vegetation and human infrastructure. If any active nests (containing eggs or young) are found, an appropriately-sized buffer area (up to 300 feet for passerine species or up to 500 feet for owls and raptors) must be avoided until the young birds fledge. | SCE               |
| Raptors       | Red-tailed hawks and ravens, both known to nest on transmission towers in Mojave National Preserve, must be protected according to the provisions of the Migratory Bird Treaty Act.   | SCE               |
| Wildlife      | SCE shall implement additional protection measures for general and special-status wildlife species as suggested by the onsite biologist. Special-status mammal species occurrence in the project area include the desert bighorn sheep, American badger, kit foxes, woodrat species, and other species that could be affected or crushed by construction vehicles. Protection measures would include requiring  | SCE               |

| Resource Area                               | Mitigation   | Responsible Party |
|---|--|-------------------|
|   | <p>project personnel to attend training; cover trenches or provide escape ramps for all walled holes or trenches deeper than 6 inches; operate all vehicles and equipment at posted speed limits on public roads and follow a speed limit of 15 miles per hour on all non-public access roads to minimize vehicle collisions with wildlife, if at all possible avoid middens, burrows, vegetation or geology (i.e., caliche layers, rock outcrops) that provide cover, dens or cavities. Trenches or holes greater than 5 feet in depth must be covered or fenced when left overnight to prevent entrapment and/or injury to desert tortoises.</p> |                   |
| <p>Special-status plants</p>                | <p>Locations of any special-status plants shall be flagged and avoided as possible and monitored by a qualified biologist during construction. Dust control measures will also be implemented to minimize fugitive dust impacts on plants. See LUPA-BIO-7/13, LUPA-BIO-PLANT-2/3, and CONS-BIO-PLANT-1. (BLM Mitigation BR-2)</p>  | <p>SCE</p>        |
| <p>Native vegetation/plant assemblages</p>  | <p>Impacts to native vegetation shall be avoided to the maximum extent possible. See LUPA-BIO-7/13/14, LUP-BIO-SV5-1/2/3/5, and LUP-COMP-1/2. (BLM Mitigation BR-3)</p>  | <p>SCE</p>        |
| <p>Habitat restoration and revegetation</p> | <p>A Habitat Restoration and Revegetation Plan shall be prepared and implemented. Within the Mojave National Preserve, biological crusts need to be carefully removed intact, stored in a safe place, and then replaced in the original location after revegetation to complete restoration. Also, within the Mojave National Preserve, vegetation restoration must follow the vegetation management</p>   | <p>SCE</p>        |

| Resource Area                       | Mitigation  | Responsible Party |
|-------------------------------------|---|-------------------|
|                                     | guidelines set forth in the NPS Reference Manual #77: Natural Resource Management and, in particular, the preservation of diversity, preservation of genetic integrity and the prevention of genetic contamination. See LUPA-BIO-7/13, LUPA-BIO-SVF-1/2/3/5, LUPA-BIO-VEG-1/5, LUPA-LIVE-1, NLCS-DIST-1/2, NLCS-LANDS-1/3/5, and ACEC-DIST-1/2. (BLM Mitigation BR-4) |                   |
| Habitat Compensation                | A Habitat Compensation Plan shall be prepared and implemented. See LUPA-BIO-13 and LUPA-COMP-1/2, NLCS-DIST-1/2, NLCS-LANDS-1/3/5, and ACEC-DIST-1/2. (BLM Mitigation BR-5)   | SCE               |
| Native vegetation/plant assemblages | Control and management of targeted non-native and/or invasive plants (i.e., weeds) in the project area and vicinity within SCE's 500 kV transmission line right-of-way corridor, per SCE Right of Way Weeds – Status & Guidance 2018 (NPS Mojave National Preserve). (BLM Mitigation BR-6)  | SCE               |

## Agency Consultation

### *SHPO and Tribal Consultation*

#### California State Historic Preservation Officer

Class III background research and field surveys were completed and documented in cultural resources inventory and evaluation reports prepared for the Selected Action. Eight sites are on lands administered by the NPS, of which two lay outside the Area of Potential Effect [APE]. Ten of the documented sites are on lands administered by the NPS, Mojave National Preserve. Twelve new cultural resources sites were identified, three previously identified resources were revisited (two of which were updated), and 24 isolated finds were documented. As the lead agency, the Bureau of Land Management determined there would be no adverse effect to historic resources and submitted a request for concurrence to the California State Historic Preservation Officer June 20, 2018. The SHPO concurred with the BLM's with BLM's proposed

approach to satisfy its compliance with Section 106 of the NHPA. On June 1, 2017, the BLM initiated tribal consultation regarding both of SCE's projects, LVRAS and Eldorado-Lugo-Mohave Series Capacitor (ELM), on behalf of the NPS with the following tribes: Colorado River Indian Reservation, Fort Mojave Indian Tribe, Chemehuevi Indian Tribe, and Twentynine Palms Band of Mission Indians. The Fort Mojave Indian Tribe and the Twentynine Palms Band of Mission Indians both responded with interest in continuing government-to-government consultation for the duration of the two projects.

## **U.S. Fish and Wildlife Service**

The BLM requested concurrence from the US Fish & Wildlife Service (USFWS) with a finding of not likely to adversely affect desert tortoise or Mohave tui chub, both species of which are listed as either threatened or endangered under the federal Endangered Species Act and the California Endangered Species Act. The request, which was sent September 7, 2018, included a biological assessment of the EA. The USFWS issued programmatic biological opinions to both the BLM California Desert District and to the NPS Mojave National Preserve. The Biological Opinion for Activities in the Mojave National Preserve, San Bernardino County, California was issued August 7, 2019 by the USFWS Palm Springs Field Office. It addresses most operational activities on utility rights-of-way, including SCE's LVRAS project, and updates protective measures for desert tortoises and desert tortoise critical habitat in the Preserve. The project area does not include and is not located near Mohave tui chub populations or habitat.

## **California Department of Fish and Wildlife**

Throughout the entirety of the project area on both NPS and BLM lands, there are 33 special status plant species and eight special status wildlife species identified by either the California Department of Fish and Wildlife (CDFW), USFWS, or both agencies. SCE will comply with CDFW guidelines for western burrowing owl surveys and implement mitigation measures per CDFW guidelines. An on-site biologist will monitor for special status plants, flagging individual plants during construction.

## CONCLUSION

Based on the information, analysis, and mitigation measures contained in this FONSI; the EA; and the full consideration of scoping and EA review comments received from affected agencies and the public, the NPS has determined that the Selected Alternative does not constitute a major federal action that will significantly affect the quality of the human environment. Therefore, the preparation of an environmental impact statement is not required and the requirements of NEPA have been satisfied. Once NEPA compliance has been satisfied for the Eldorado-Lugo portion of SCE's 500 kV transmission line, the National Park Service, Regions 8 will issue a right-of-way permit for the entirety of the transmission corridor. Mojave National Preserve will issue a special use permit for construction of the LVRAS project so that SCE may implement the Selected Alternative.

## RECOMMENDED

---

Mike Gauthier, *ACTING* Superintendent  
Mojave National Preserve  
National Park Service

---

Date

## APPROVED

---

Stan Austin, Director  
National Park Service, Regions 8, 9, 10, 12

---

Date