

[FINAL DRAFT]

Eldorado – Lugo – Mohave Series Capacitor Project

Habitat Compensation Plan

Prepared by

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Applicable agencies

Bureau of Land Management

National Park Service

California Public Utilities Commission

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1.0 PROJECT BACKGROUND

SCE is a public utility that provides electric service to a population of approximately 15 million people within an approximately 50,000-square-mile service area that encompasses 180 cities throughout Southern California. This Project was approved by the California Independent System Operator (CAISO) following recommendations for approval as a policy-driven upgrade through the CAISO's transmission planning process. As a policy-driven upgrade, the purpose of the Project is to integrate renewable generation and relieve area deliverability constraints.

The capability of the existing infrastructure is limited by the existing series capacitors and terminal equipment and needs to be upgraded to meet the Project objectives by increasing the import capability of the existing transmission lines. These upgrades have been approved as CAISO policy-driven upgrades in the 2012-2013 and 2013-2014 Transmission Plans. Additionally, the Project will reduce megawatt (MW) flow into the neighboring Los Angeles Department of Water and Power's (LADWP's) transmission system.

In September 2017, the United States (U.S.) Fish and Wildlife (USFWS)—in consultation with the Bureau of Land Management (BLM)—released the Biological Opinion for Activities in the California Desert Conservation Area (BO) regarding the effects on the federally listed desert tortoise and its USFWS-designated critical habitat, in accordance with Section 7 of the federal Endangered Species Act (FESA) of 1973, as amended (16 U.S. Code 1531 et seq.), of existing and future actions that are likely to occur within the boundaries of the California Desert Conservation Area (CDCA). The BO pertains, but is not limited to the construction, operation, maintenance, and decommissioning of transmission and distribution lines, substations and switchyards, and communication towers under the direction of the CDCA Plan, as amended, including the conservation and management actions for the Desert Renewable Energy Conservation Plan (BLM 2016). The BO describes the process by which the BLM and USFWS will consult on future activities and analyzes whether implementation of these activities is likely to jeopardize the continued existence of the desert tortoise or result in the destruction or adverse modification of its USFWS-designated critical habitat. FESA compliance for the Project is covered under the BO.

2.0 PROJECT OVERVIEW

Southern California Edison's (SCE's) Proposed Project would:

- Construct 2 new 500 kV mid-line series capacitors (i.e., the proposed Newberry Springs Series Capacitor and Ludlow Series Capacitor) and associated equipment.
- Provide 2 communication paths between the series capacitor sites.
 - – Install approximately 2 miles of overhead and 700 feet of underground telecommunications facilities as one path to connect the proposed series capacitors to SCE's existing communication system.
 - – Install approximately 2 miles of underground telecommunications facilities as a second communication path to connect the series capacitors to SCE's existing communication system.
- Provide station light and power to the proposed series capacitors by extending and/or rerouting existing lines to create approximately 2 miles of overhead and 700 feet of underground 12 kV distribution circuits. (The new distribution poles would support overhead telecommunication facilities as well as the electric distribution lines.)

- Construct 3 new fiber optic repeater facilities (Barstow, Kelbaker, and Lanfair) within the Lugo-Mohave ROW.
- Install distribution lines for light and power at the 3 proposed fiber optic repeater sites.
- Install underground telecommunications facilities from existing transmission structures to the Barstow, Kelbaker, and Lanfair fiber optic repeater sites.
- Address 16 potential overhead clearance discrepancies at 14 locations by:
 - – Relocating, replacing, or modifying existing transmission, subtransmission, and distribution facilities at approximately 12 locations along the Eldorado-Lugo, Eldorado-Mohave, and Lugo-Mohave 500 kV Transmission Lines to address 14 of the overhead clearance discrepancies. Tower modifications would include raising 9 towers up to approximately 18.5 feet by inserting new lattice-steel sections in tower bodies.
 - – Performing minor grading at 2 locations along the Lugo-Mohave 500 kV Transmission Line to address 2 of the overhead clearance discrepancies.
- Install approximately 232 miles of optical ground wire (OPGW) (approximately 59 miles on the Eldorado-Mohave Transmission Line and approximately 173 miles on the Lugo-Mohave Transmission Line, and approximately 3 miles of underground telecommunications facilities in the vicinity of the Mohave Substation).
- Modify and strengthen the ground wire peak of existing suspension towers where OPGW splices would occur (some of these towers would also require minor modifications to the steel in the tower body).
- Install approximately 2,000 feet of underground telecommunications facilities within the existing Lugo, Mohave, and Eldorado Substations.
- Within Lugo Substation, perform modifications on the existing series capacitors and install new terminating equipment and remove 2 existing tubular steel poles (TSPs) and install 2 new TSPs on the Eldorado-Lugo and Lugo-Mohave 500 kV Transmission Lines.
- Within the Eldorado Substation, perform modifications on the existing series capacitors and upgrade the terminal equipment on the Eldorado-Lugo 500 kV Transmission Line.
- Within the Mohave Substation, replace existing series capacitors on the Lugo-Mohave 500 kV Transmission Line and install new terminal equipment on the Eldorado-Mohave and Lugo-Mohave 500 kV Transmission Lines.
- Install (if necessary) cathodic protection on approximately 60 miles of SoCalGas’s natural gas pipelines parallel to SCE’s Lugo-Mohave 500 kV Transmission Line and on other pipelines as needed.

3.0 MITIGATION FOR IMPACTS TO DESERT TORTOISE

Compensation for impacts to desert tortoise habitat is required under the BLM’s Programmatic Biological Opinion (BO) (FWS-KRN/SBD/INY/LA/IMP/RIV-17Bo532-17F1029) dated September 1, 2017. BLM requires project proponents to compensate for the loss of desert tortoise habitat through the Desert Renewable Energy Conservation Plan’s (DRECP) Land Use Plan Amendments (LUPA). The DRECP’s LUPA-COMP-1 requires compensation fulfilled by either non-acquisition, land acquisition or a combination of

both, depending on the BLM approval/authorization. BLM agreed (Feb 2020) to accept a certified mitigation bank to compensate for desert tortoise impacts covered in the Programmatic BO.

Compensatory mitigation is required under California Public Utilities Commission's Initial Study/Mitigated Negative Declaration Mitigation Measure BR-8. SCE will compensate for all desert tortoise habitat loss through off-site habitat acquisition and management, or through participation in an approved in-lieu fee compensatory mitigation bank or other agency approved mitigation strategies.

Compensation for temporary and permanent impacts to desert tortoise habitat¹ is proposed at the following ratios:

- A 5-to-1 ratio for impacts to desert tortoise critical habitat
- A 1-to-1 ratio for impacts to desert tortoise habitat, excluding critical habitat

No compensatory mitigation is proposed for disturbed areas (i.e., totally denuded, mostly denuded with scattered shrub-like vegetation, active agricultural, residential, and urban) that provide no habitat value to the species. Although much of the desert tortoise habitat disturbance resulting from Proposed Project activities will be temporary, compensatory mitigation will be provided at a permanent ratio due to the slow recovery time of habitats in desert ecosystems. No mitigation will occur for impacts to developed land within the Proposed Project area or areas that have been previously mitigated for.

SCE ELM Project team worked closely with BLM regarding using certified banking credits as compensation for impacts under the BO. Email correspondence from June 23, 2020, confirmed that BLM has approved the Mojave Desert Tortoise Conservation Bank as a viable option for the protection for the desert tortoise. SCE will purchase mitigation credits at the CDFW-Certified Mojave Conservation Mitigation Bank (Bank). The Bank is comprised of eight (8) mitigation properties with approximately 4,683 acres of desert tortoise habitat within the Western and Northern Colorado Recovery units for Desert Tortoise. Prior to construction commencement, SCE will purchase approximately 75 percent of the credits required (approximately 280 credits). The Project's current design includes more helicopter landing zones than will be needed to complete construction. SCE will allow the onboarding construction contractor to select the appropriate landing zones, thereby eliminating the need for some sites. SCE estimates that approximately 40 acres of temporary impacts to non-critical desert tortoise habitat may be avoided by reducing the number of landing zones and/or laydown yards that may have not been used during construction. The Bank will serve as a means for SCE to debit and credit its mitigation as impacts accrue over the life of the Biological Opinion permit, respective to the Desert Tortoise Recovery Units the impacts occur in. The number of credits to be debited will be determined based on the actual impacts resulting from completed Project activities. Once the project is completed, SCE will provide final accounting of credits purchased. Each desert tortoise credit is equivalent to one acre of mitigation. Below is a table of the estimated impacts, mitigation and associated Mojave Recovery Unit purchases:

¹A desert tortoise habitat assessment was conducted for the ELM project. During the fieldwork associated with the habitat assessment, biologists mapped the vegetation alliances that were present along the project alignment. Vegetation alliances considered unsuitable for desert tortoise (i.e., developed [including roads, homes, and ornamental areas], barren, and active agriculture) were considered unsuitable habitat. In some locations, the underlying vegetation had been previously disturbed to the point where it was considered unsuitable habitat. All remaining areas were considered suitable habitat.

Desert Tortoise Impacts & Mitigation for ELM

	SCE Impacts to DT Critical Habitat	Ratio for Critical Habitat ¹	SCE Impacts Outside DT Critical Habitat	Ratio Outside of Critical Habitat ¹	Total Mitigation Rq'd
Eastern Mojave Recovery Unit	9.86	5:1	10.6	1:1	59.9
Western Mojave Recovery Unit	7.78	5:1	114.2	1:1	153.1
Colorado Desert Recovery Unit	17.92	5:1	9.72	1:1	99.32

¹ As of March 2020

TOTAL 312.32