

ELDORADO-LUGO-MOHAVE (ELM) SERIES CAPACITATOR PROJECT

Date: January 22, 2025
To: Narissa Jimenez-Petchumrus, Project Manager, CPUC
From: Vida Strong, Aspen Project Manager
Subject: Monitoring Report #37: December 1 through 31, 2025

Introduction

This report provides a summary of the remaining construction and compliance activities associated with Southern California Edison's (SCE) El Dorado-Lugo-Mohave (ELM) Series Capacitor Project (Project). All series capacitor and substation upgrade construction activities were completed by SCE and their contractors, and the project was fully energized in 2024 (see Monitoring Reports #1 through #34). The only remaining activities include the installation of an alternating current (AC) mitigation system along approximately 60 miles of Southern California Gas Company's (SoCalGas) natural gas pipelines parallel to SCE's Lugo-Mohave 500 kV transmission line and on other pipelines. SoCalGas is conducting the construction necessary to install the AC mitigation system; although, the California Public Utilities Commission (CPUC) is providing monitoring oversight to ensure that all required Project mitigation measures, permit conditions, and compliance plan requirements are being implemented. Although the following cathodic protection activities are project-wide, this report is limited to construction and compliance activities under the jurisdiction of the CPUC, which includes non-federal California lands. Overall cathodic protection activities include:

- Installation of 2/0 copper grounding cable parallel to and within 10 feet of SoCalGas pipelines L235 and L3000.
- Installation of coupon test stations (CTS) to monitor the level of AC interference over time and to alert SoCalGas of any issues that may develop.
- Installation of solid-state decoupler (SSD) devices to allow AC to pass to ground while retaining direct current (DC) on pipelines L235 and L3000.
- Other ancillary improvements necessary to facilitate the installation of AC mitigation components, such as access improvements and laydown yards.

CPUC Environmental Monitors (EMs)

CPUC EM, Rosina Goodman, was onsite December 10 and 17 during the reporting period due to limited work on land overseen by the CPUC. No construction activities occurred between December 22-27, 2025, for the Christmas holiday and on December 31, 2025 for the New Years Holiday.

CPUC Notices to Proceed (NTPs)+

Table 1 summarizes the NTPs issued for the Project by the CPUC, to date. No additional NTPs are required.

Table 1 - CPUC Notices to Proceed			
NTP	Date Requested	Date Issued	Description
NTP #1	09-22-2020	12-14-2020	<ul style="list-style-type: none"> ▪ Modifications at the Lugo Substation ▪ Mid-Line Series Capacitor Construction at Ludlow Series Capacitor 5 ▪ Distribution and Telecommunications Construction for Mid-Line series Capacitors and the Barstow Repeater ▪ Staging Yard construction at the Ludlow Series Capacitor Yard
NTP #2	03-23-2021	04-01-2021	<ul style="list-style-type: none"> ▪ Tower raise modifications on the Lugo-Mohave and Eldorado-Lugo transmission lines (two locations) ▪ Establishment of Helicopter Landing Zone 184 ▪ Development of the Coolwater Staging Yard
NTP #3	04-29-2021	05-13-2021	<ul style="list-style-type: none"> ▪ Installation of OPGW fiber optic line along the Lugo-Mojave transmission line from Structure M165-T4 (near California/Nevada border) to Structure M68-T2 (near Ludlow Series Capacitor) ▪ Modifications to strengthen overhead structures with new OPGW splice structures ▪ Development of the Fenner Staging Yard and Ludlow Alternative Staging Yard
NTP #4	05-28-2021	06-08-2021	<ul style="list-style-type: none"> ▪ Installation of OPGW fiber optic line along the Lugo-Mohave transmission line from Structure M66-T3 (west end) to Lugo Substation (east end) ▪ Modifications to strengthen overhead structures with new OPGW splice structures ▪ Development of the Arrow Lake Road Staging Yard and Bear Valley Staging Yard
NTP #5	07-15-2025	08-04-2025	<ul style="list-style-type: none"> ▪ Installation of 2/0 copper grounding cable parallel to and within 10 feet of L235 and L3000. ▪ Installation of coupon test stations (CTS) to monitor the level of AC interference over time and to alert SoCalGas of any issues that may develop. ▪ Installation of solid-state decoupler (SSD) devices to allow AC to pass to ground while retaining direct current (DC) on L235 and L3000. ▪ Other ancillary improvements necessary to facilitate the installation of AC mitigation components, such as access improvements and laydown yards.

Construction & Compliance

A summary of construction and compliance activities is provided below by NTP. Allowed construction activities under each NTP is summarized in Table 1 above.

- **NTP #1-4.** To date, all construction activities are complete.
- **NTP #5.** To date, all pre-compliance materials associated with NTP #5 have been reviewed and approved by the CPUC EM. Construction activities associated with NTP #5 began on September 22, 2025, and continued throughout the reporting period.

Summary of All Construction Activity

Construction activities associated with NTP #5 conducted by SoCalGas during the reporting period included:

1. The existing Newberry Springs Yard is being used as a reporting location for workers, vehicle and equipment parking, and material storage during construction.

2. The Crucero Road yard continues to be used for equipment and material staging, including the water tanks for dust mitigation. The yard boundaries have been expanded to the approved limits of disturbance. Construction activities during the reporting period included grading, rock placement, desert tortoise and security fence installation, and BMP installation (see Photo 1).
3. The Ludlow laydown yard was used for equipment and material staging, including the water tanks for dust mitigation. During the reporting period, the yard was decompacted and all construction equipment, BMPs, and fencing was removed (see Photo 2).
4. Construction and monitoring activities on the SoCalGas L235 pipeline included:
 - Access road maintenance and cactus and Yucca salvage/relocation in Sections 1, 2, and 4 (see Photo 3).
 - Potholing activities occurred in Section 2.
 - Site preparation, wire installation (see Photo 4), and SSD/bellhole installation (see Photo 5) occurred in Sections 1 and 2.
5. No construction and monitoring activities occurred on the SoCalGas L3000 pipeline.
6. Water trucks were deployed and escorted by biologists on all access roads to control dust at all work sites, laydown yards, and on the access roads.

Environmental Compliance

1. There were no Incident Reports, Project Memoranda, or Non-Compliance Reports issued by the CPUC EM during the reporting period.
2. There were no self-reported incidents by the SoCalGas inspection team during the reporting period.
3. There were no SWPPP maintenance items/corrective actions recorded during the reporting period.
4. No reportable (>1 gallon) spills identified during the reporting period.
5. Avian activities during the subject reporting period are summarized below. If required, nest management, including establishment of buffers and the removal of inactive non-special-status bird species' nests, was implemented per the requirements of the project Nesting Bird Management Plan (NBMP).
 - No active nests or nest removals were reported during the subject period.
 - No nest failures due to Project activities were reported during the subject period.
 - There were no project-related mortality events observed during the reporting period.
6. There were no special-status species observed or detected during the reporting period.

Minor Project Refinements (MPRs) and Temporary Extra Workspaces (TEWS)

Table 2 summarizes the CPUC MPRs and TEWS issued since the start of construction through this reporting period. One MPR was approved during the subject reporting period.

Table 2 – Minor Project Refinements and Temporary Extra Workspaces			
MPR/ TEWS	Date Requested	Date Issued	Description
MINOR PROJECT REFINEMENTS (MPRs)			
1	08-26-2021	09-08-2021	Additional work areas.
2	09-24-2021	09-30-2021	Work areas, walking paths, water sources.
3	10-11-2021	10-21-2021	Additional work areas.
4	10-13-2021	10-21-2021	Additional work areas, distribution line modification.

Table 2 – Minor Project Refinements and Temporary Extra Workspaces			
MPR/TEWS	Date Requested	Date Issued	Description
MINOR PROJECT REFINEMENTS (MPRs)			
5	10-13-2021	10-15-2021	Potable water source, additional work areas.
6	12-21-2021	01-11-2022	Induction fencing.
7	01-20-2022	01-26-2022	Additional water source.
8	02-07-2025	02-11-2025	Implementation of cathodic protection measures.
9	12-10-2025	12-11-2025	Additional water source.
TEMPORARY EXTRA WORKSPACES (TEWS)			
1	05-10-2021	05-10-2021	▪ Use of existing access road between Structures M162-T1 and M163-T1 and M164-T1 and M164-T2.
2	10-14-2025	10-15-2025	▪ Temporary use of water source for AC mitigation construction.

CPUC Incident Reports, Project Memoranda (PMs) and Non-Compliance Reports (NCRs)

Table 3 summarizes the CPUC Project Memorandum and Incident Reports issued since the start of construction. No Incident Reports, PMs, or NCRs were issued during the subject reporting period.

Table 3 – CPUC Incidents, Project Memoranda (PM), and Non-Compliance Reports					
Incident/PM/NCR	Regulatory Requirement	Date Issued	Location	Description	Corrective Actions
INCIDENT REPORTS					
Level 1 Incident	MM CR-5	02-04-21	Ludlow Series Capacitor	On February 3, 2021, the CPUC EM documented no monitors present in an area where monitoring is required.	BETA provided a response on February 19, 2021 and indicated that no work occurred within the established buffer for sensitive resources at the site. As such, BETA contended that all work occurred at a distance where monitoring would not be required. As a final resolution, SCE submitted a map revision to the area in question which reduced the work site boundaries to a farther distance from the sensitive resources. The CPUC confirmed that the reduction of the project limits would be an acceptable approach in lieu of the required monitoring.
Level 1 Incident	APM AIR-02	04-07-21	Ludlow Series Capacitor	Between March 30 and April 6, 2021, a non-compliant piece of heavy equipment (scraper) was utilized.	SCE shall ensure that all off-road diesel equipment meets the requirements defined under APM AIR-02. SCE shall provide documentation of any exceptions defined under APM AIR-02 prior to utilizing equipment for any project activities.
Level 1 Incident	MM BR-10	04-08-21	Project-wide	Data associated with golden eagle surveys and potential nesting sites was not provided to the CPUC within the required timeframe.	SCE will enter all active golden eagle nests data obtained during the April 2021 surveys into FRED within 24 hours of this report.

Table 3 – CPUC Incidents, Project Memoranda (PM), and Non-Compliance Reports					
Incident/ PM/NCR	Regulatory Requirement	Date Issued	Location	Description	Corrective Actions
Level 1 Incident	MM T-3 Helicopter Use Plan MMCRP	06-14-21	Project- wide	Providing insufficient data for helicopter flight tracks review	Flight track review will be required daily at the end of each day the helicopter was operating. Flight track information will include flight path, including altitude above ground using a system that pings every three seconds so that we can gather time, elevation, and location data, start/end times, jurisdiction information, any resource information, and landing information.
PROJECT MEMORANDUMS					
PM 001	ITP 8.8 MM BR-1	03-08-21	Ludlow Series Capacitor Lugo Substation	<ul style="list-style-type: none"> On March 5, 2021, the CPUC EM observed project activities that had occurred prior to the installation of required desert tortoise exclusionary fencing. Several records identified monitors commencing activities onsite prior to CPUC concurring with agency approvals. 	SCE must comply with the specific requirements of the approved Temporary Desert Tortoise Exclusion Fencing Plan. This includes the installation of exclusion fencing prior to vegetation removal and grading activities at locations identified in the plan. SCE is also reminded that CPUC concurrence is required prior to biological monitors commencing activities at project work sites.
NON-COMPLIANCE REPORTS					
NCR 001	MM T-3 MM BR-10 NBMP MMCRP Helicopter Use Plan	06-16-21	Various	<ul style="list-style-type: none"> Operating a helicopter without the required GPS tracking device Removing buffers for golden eagle nests without notification or documentation Unreported mortality event of red-tailed hawk Non-notification of nest buffer reduction at red-tailed hawk nest Late reporting of Level 1 incident of helicopter nest buffer incursion Multiple nest buffer incursions over the period of 5/17/21 to 6/6/21 Inadequate daily flight track review by contractor Inappropriate inactive nest determination based on 15-minute observation of nest Lack of self-reporting by contractor when compliance items are identified 	A Response and Corrective Action by SCE was provided following each of the nine "Failure to Comply" Requirements identified in the NCR and a separate response was provided following each of the five "Corrective Actions Required" listed in the NCR.

PHOTOS



Photo 1. Crucero Yard Security and Desert Tortoise Fence Installation (December 17, 2025).



Photo 2. Ludlow Yard decompaction and fence removal (December 4, 2025).



Photo 3. L235 Section 4 Yucca Transplantation
(Photo Courtesy of SoCalGas)



Photo 4. L235 Section 2 Copper Wire Installation (December 16, 2025)
(Photo courtesy of SoCalGas)



Photo 5. L235 Section 1 SSD/bellhole covered (December 17, 2025)