

ELDORADO-LUGO-MOHAVE (ELM) SERIES CAPACITATOR PROJECT

Date: November 21, 2025 (revised)
To: Narissa Jimenez-Petchumrus, Project Manager, CPUC
From: Vida Strong, Aspen Project Manager
Subject: Monitoring Report #35: January 1 through October 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 on 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 September 24 and October 1, 8, 15 and 22 during the reporting period.

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 |

| Table 1 - CPUC Notices to Proceed | | | |
|--|-----------------------|--------------------|---|
| NTP | Date Requested | Date Issued | Description |
| 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. Two new staging yards, Crucero Road yard (see Photo 1) and Ludlow Laydown Yard (see Photo 2) completed construction which included vegetation clearing, grading, temporary security fencing, temporary desert tortoise fencing, screening, water tank staging, and BMP installation.
3. Construction activities on the SoCalGas L235 pipeline included:
 - Escorting personnel and equipment on all access roads, access road maintenance, clearing vegetation, potholing, wire installation, Bellhole excavation, and Solid State Decoupler (SSD) attachment to existing pipe in Section 19,
 - Clearing vegetation, potholing, wire installation and splicing, Bellhole excavation, SSD attachment to existing pipe, and restoration grading in Section 20 (see Photo 3),
 - Potholing, excavation, and installation of CTS 7,

- Grading, excavation, and installation of CTS 6 (see Photo 4),
 - Grading, potholing, backfilling, wire installation, Bellhole excavation, and SSD attachment to existing pipe in Section 17A (see Photo 5), and
 - Excavation in CTS 4.
4. Construction activities on the SoCalGas L3000 pipeline included:
- Escorting personnel and equipment along the access road, access road maintenance, grading, potholing, and wire installation in Section 1 (see Photo 6), and
 - Grading, potholing, and wire installation in Section 2.
5. Water trucks were deployed and escorted by biologists on all access roads to control dust at all work sites and on the access road.

Environmental Compliance

1. There were no Incident Reports, Project Memoranda, or Non-Compliance Reports issued by the CPUC EM during the reporting period.
2. On September 25, 2025, a cultural monitor observed chert within the footprint of the Ludlow Laydown Yard prior to construction. An Avoidance buffer was established around the resource, and the footprint of the yard was modified to avoid the resource.
3. One Level 1 incident was reported by the SoCalGas inspection team during the reporting period.
 - On October 23, L235 CTS 4 was excavated prior to pre-construction survey submittal. CPUC did field verify staking on October 8th and a pre-construction survey was performed October 10th; however, documentation was not submitted as construction activity was not scheduled. A pre-activity survey was performed prior to ground disturbance, and there were no adverse impacts to resources. For corrective actions, SoCalGas included that the CPUC site tracker with approval status will be shared between Lead EM, Consultant Project Manager, and Construction for easy reference for field personnel.
4. There were no SWPPP maintenance items/corrective actions recorded during the reporting period.
5. Two reportable (>1 gallon) spills identified during the reporting period.
 - On October 20, a small hydraulic fluid leak was noticed after moving a V-ditch trencher/ripper from L3000 Section 2 to L3000 Section 1. The equipment was staged within L3000 Section 1 work area with secondary containment pending evaluation of equipment. The impacted soil was removed from the access road, placed into containment, and staged at the Crucero Road Laydown Yard for disposal at an appropriate disposal facility.
 - On October 21, the V-ditch trencher/ripper had a hydraulic line failure when attempting to move the equipment to facilitate evaluation. The V-ditch trencher was moved to allow for hydraulic fluid cleanup and staged within the workspace with secondary containment pending maintenance. Impacted soil was removed from the workspace, placed into containment, and staged at Crucero Laydown Yard for disposal at an appropriate disposal facility.
6. 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.
7. Special-status species observed or detected during the reporting period included Mojave fringe-toed lizard. The biological monitor herded the lizards out of harm's way and outside of the work area.

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

Table 2 summarizes the CPUC MPRs and TEWS issued since the start of construction. No MPRs and one TEWS was submitted for approval 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. |
| 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. |
| 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 |

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. |

| 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 | 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. |
| 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 | 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. |

| Table 3 – CPUC Incidents, Project Memoranda (PM), and Non-Compliance Reports | | | | | |
|--|---------------------------|----------------|----------|--|--------------------|
| Incident/ PM/NCR | Regulatory Requirement | Date Issued | Location | Description | Corrective Actions |
| | | | | <ul style="list-style-type: none">▪ Inappropriate inactive nest determination based on 15-minute observation of nest▪ Lack of self-reporting by contractor when compliance items are identified | |

PHOTOS



Photo 1. Construction of the Crucero Road Yard (September 24, 2025).



Photo 2. Construction of the Ludlow Yard (October 1, 2025).



Photo 3. L235 Section 20 Restoration Grading (October 20, 2025)
(Photo Provided by SoCalGas)



Photo 4. L235 CTS 6 Installation (October 24, 2025)
(Photo Provided by SoCalGas)



Photo 5. Ripping at L235 Section 17A
(Photo provided by So Cal Gas)



Photo 6. L3000 Section 1 V-ditch Trencher (October 29, 2025)
(Photo Provided by SoCalGas)