PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298

May 13, 2021

Tom Diaz
Project Manager
Major Environmental Projects
Southern California Edison
2244 Walnut Grove Avenue
Rosemead, CA, 91770

RE: Eldorado-Lugo-Mohave Upgrade Project: Notice to Proceed #3

Dear Mr. Diaz,

On April 29, 2021, Southern California Edison (SCE) submitted Notice to Proceed (NTP) Request #3 to the California Public Utilities Commission (CPUC) for the construction of portions of the Eldorado-Lugo-Mohave Upgrade Project (ELM Project). The Project would increase the amount of power delivered on the existing Eldorado-Lugo and Lugo-Mohave 500-kV transmission lines, address line clearance discrepancies, facilitate communication between substations, and modify substations to accommodate the Proposed Project. SCE's Eldorado-Lugo-Mohave Upgrade Project was evaluated in accordance with the California Environmental Quality Act (CEQA). The mitigation measures described in the Final Mitigated Negative Declaration (MND) were adopted by the CPUC as conditions of project approvals. The CPUC voted on August 27, 2020 to approve SCE's Eldorado-Lugo-Mohave Upgrade Project (Decision D.20-08-032) and a Notice of Determination was submitted to the State Clearinghouse (SCH# 2019089033). The CPUC also adopted a Mitigation Monitoring, Compliance and Reporting Program (MMCRP) to ensure compliance with all mitigation measures imposed on the ELM Project during implementation.

NTP Request #3 includes some project components that are located on lands under CPUC's jurisdiction; monitoring of project construction on federal lands will be conducted by the respective federal agencies. Specifically, this NTP request includes the following construction activities: Overhead ground wire (OPGW) installation, modifications to overhead structures, and staging yards to support construction activities. The subject project components were field validated by the CPUC Environmental Monitor on May 11, 2021. SCE requested two previous NTP authorizations in a phased approach. Given that the ELM Project has been approved by the CPUC, as described above, this phased construction review process allows SCE to proceed with individual project components where compliance with all applicable mitigation measures and conditions can be documented.

Comments and questions were provided to SCE on May 6. A revised NTPR addressing the comments was provided on May 11, 2021 and additional information was provided on May 12, 2021.

This letter documents the CPUC's thorough evaluation of all activities covered in this NTP, including the mitigation measure requirements applicable to the subject NTP Request. The evaluation process ensures that all mitigation measures applicable to the location and activities covered in the NTP are implemented, as required in the CPUC's Decision.

NTP #3 for the construction of the requested portions of the ELM Project is granted by the CPUC based on the factors described below.

Notice to Proceed Request Summary

SCE requests an NTP from the CPUC to construct the following improvements along certain segments of the existing 500 kV transmission line, located in California on non-federal lands. SCE specifics regarding this request are provided below (see indented text).

- Installation of optical ground wire (OPGW) fiber optic line along the Lugo-Mohave transmission line from the California/Nevada border near structure M165-T4 to M68-T4 (near Ludlow Series Capacitor Site).
- Complete modifications to strengthen the existing structures that will be configured with the new OPGW splice locations.
- Development of the Ludlow Alternative and Fenner Staging Yards.

These activities are described in the Final Mitigated Negative Declaration (November 2019) developed by the CPUC and are consistent with the proposed work to be performed at the upgrade locations of the project.

Construction Location, Description of Work Areas and Existing Conditions, and Approximate Acreage of Disturbance by Work Area, Vegetation Type and Land Use

The following table and referenced NTPR maps provide the different types of construction activities that occur in different work areas for OPGW installation. Below are the definitions for these terms:

- Equipment Site: Area to be used by equipment to complete the connecting of the fiber to the structure as well as the splicing of the fiber.
- New Structure Work Area (NSWA): Existing, previously disturbed, spur road and/or crane pad site.
- Structure Work Area (SWA): Area designated for the personnel to setup equipment and complete the installation of the OPGW. In some cases, the overall previously disturbed area was not included in the proposed SWA. Beta Engineering is proposing to modify the SWA (sites shown in the following table) by including all the previously disturbed areas around the structure site. The SWA was reconfigured to provide a net zero change in disturbance totals at these sites (moved the area from main the access road and moved to the area around structure).
- Expanded work areas: Additional work areas at Structures M78-T4 and M128-T1 will be utilized for crane installation procedures and will be limited to drive and crush methods only. Also, these areas may be utilized as access and set up for spicing equipment depending on the location of the tower leg. Similarly, splicing activities would be limited to drive and crush methods only.
- STR-BS1/AS1: The OPGW work areas designated for the equipment to be used for reeling in the old ground wire and spooling out the new OPGW.
- SA-BS1/AS1: The ingress/egress to the above-mentioned equipment work areas.
- Footpath: The route personnel will use to get from the SWA) to the equipment work areas (STR-BS1/AS1). Only foot traffic will use these routes.
- Landing Zones (LZ): An area designated to allow the helicopter to land safely away from any obstructions. The area will be used by the helicopter crew to shuttle material and personnel to respective structure sites. There will be a support fuel truck/mechanic vehicle for the helicopter crew.

The following table contains information on the location of construction activities (by existing structure number or helicopter LZ number), the associated work areas, and a description of construction activity within those work areas. In addition, existing site conditions are described for each work area. Lastly, an approximate acreage of disturbance by work area and by vegetation type or land use is shown.

Associated Work Areas, Description of Work	Site Condition	Approximate Acreage of Disturbance Per Work Area[1]	Vegetation Type (If Vegetated) or Land Use	Disturbance (Previously Disturbed or Undisturbed)	Approximate Acreage of Disturbance Per Vegetation Type or Land Use
M68-T4 (Figure 2, Page 2 of 16)					
SWA Equipment Setup Area is where equipment will be positioned to complete the installation and splicing of the OPGW.	The Proposed Project area is characterized by undeveloped, open desert lands.	0.04	*Larrea tridentata - Ambrosia dumosa* Shrubland Alliance	Undisturbed	0.04
STR-BS1 is the location where equipment will be staged to pull in the new OPGW. These sites can have either the V-Groove, which pulls in and reels in the old ground wire, or the tensioner, which has the new OPGW and spools it out as it is begin pulled in by the V-Groove at the other end of the wire pull.	The Proposed Project area is characterized by undeveloped, open desert lands.	0.25	Developed (includes existing roads, pullouts)	Previously Disturbed	0.03
			Larrea tridentata - Ambrosia dumosa Shrubland Alliance	Previously Disturbed	0.01
			Larrea tridentata - Ambrosia dumosa Shrubland Alliance	Undisturbed	0.21
M69-T1 (Figure 2, Pages 1 and 2)					
Equipment Setup Area is where equipment will be positioned to complete the installation and splicing of the OPGW (Temporary Work Area in NTPR #1).	The Proposed Project area is characterized by undeveloped, open desert lands.	0.03	*Larrea tridentata - Ambrosia dumosa* Shrubland Alliance	Undisturbed	0.03
STR-AS1 is the location where equipment will be staged to pull in the new OPGW. These sites can have either the V-Groove, which pulls in and reels in the old ground wire, or the tensioner, which has the new OPGW and spools it out as it is begin pulled in by the V-Groove at the other end of the wire pull.	The Proposed Project area is characterized by undeveloped, open desert lands.	0.35	*Larrea tridentata - Ambrosia dumosa* Shrubland Alliance	Undisturbed	0.29
			Larrea tridentata Shrubland Alliance	Undisturbed	0.06
SWA is where equipment will be positioned to complete the installation and splicing of the OPGW (Temporary Work Area in NTPR #1).	The Proposed Project area is characterized by undeveloped, open desert lands.	0.16	Developed (includes existing roads, pullouts)	Previously Disturbed	0.05
			Larrea tridentata - Ambrosia dumosa Shrubland Alliance	Previously Disturbed	0.10
			Larrea tridentata Shrubland Alliance	Previously Disturbed	0.01
LZ_83 (Figure 2, Pages 1 and 2 of 16)					
Designated helicopter LZs are close to OPGW work areas. Material and personnel will be flown from these locations to the respective structures to complete detaching and attaching of the OPGW to the structure. These sites are used for helicopter operations, including refueling and related support during the OPGW installation.	The Proposed Project area is characterized by undeveloped, open desert lands.	0.52	Developed (includes existing roads, pullouts)	Previously Disturbed	0.13
			Larrea tridentata – Ambrosia dumosa Shrubland Alliance	Previously Disturbed	0.01
			Larrea tridentata Shrubland Alliance	Previously Disturbed	0.03
			Larrea tridentata Shrubland Alliance	Undisturbed	0.35

Associated Work Areas, Description of Work	Site Condition	Approximate Acreage of Disturbance Per Work Area[1]	Vegetation Type (If Vegetated) or Land Use	Disturbance (Previously Disturbed or Undisturbed)	Approximate Acreage of Disturbance Per Vegetation Type or Land Use
M69-T3 (Figure 2, Page 3 of 16)					
The NSWA is existing disturbed work proposed to be added to allow for a crane setup to complete the connecting (socking) of the ground wires together. This is a ground wire transposition structure where the ground wire comes in and dead-ends from both directions at the structure. The crew needs to connect (sock) the ground wire together to allow it to be removed.	The Proposed Project area is characterized by undeveloped, open desert lands.	0.26	*Larrea tridentata* Shrubland Alliance	Previously Disturbed	0.26
M78-T4 (Figure 2, Page 5 of 16)					
The SWA is a modified work area proposed to utilize the entire previously disturbed area for crane setup. The original SWA was revised by taking space identified along the existing main access road and using it for the proposed area around the structure.	The Proposed Project area is characterized by undeveloped, open desert lands	0.20	Developed (includes existing roads, pullouts)	Previously Disturbed	0.05
			Larrea tridentata - Ambrosia dumosa Shrubland Alliance	Previously Disturbed	0.06
			Larrea tridentata Shrubland Alliance	Previously Disturbed	0.08
			Larrea tridentata Shrubland Alliance	Undisturbed	0.01
SA-AS1 is the proposed access route for the ingress/egress of equipment and personnel to the OPGW pulling site.	The Proposed Project area is characterized by undeveloped, open desert lands.	0.25	*Larrea tridentata* Shrubland Alliance	Undisturbed	0.25
SA-BS1 is the proposed access route for the ingress/egress of equipment and personnel to the OPGW pulling site.	The Proposed Project area is characterized by undeveloped, open desert lands.	0.35	*Larrea tridentata* Shrubland Alliance	Undisturbed	0.35
STR-AS1 is the location where equipment will be staged to pull in the new OPGW. These sites can have either the V-Groove, which pulls in and reels in the old ground wire, or the tensioner, which has the new OPGW and spools it out as it is begin pulled in by the V-Groove at the other end of the wire pull.	The Proposed Project area is characterized by undeveloped, open desert lands.	0.25	*Larrea tridentata* Shrubland Alliance	Undisturbed	0.25
STR-BS1 is the location where equipment will be staged to pull in the new OPGW. These sites can have either the V-Groove, which pulls in and reels in the old ground wire, or the tensioner, which has the new OPGW and spools it out as it is begin pulled in by the V-Groove at the other end of the wire pull.	The Proposed Project area is characterized by undeveloped, open desert lands.	0.38	*Larrea tridentata* Shrubland Alliance	Undisturbed	0.38

Associated Work Areas, Description of Work	Site Condition	Approximate Acreage of Disturbance Per Work Area[1]	Vegetation Type (If Vegetated) or Land Use	Disturbance (Previously Disturbed or Undisturbed)	Approximate Acreage of Disturbance Per Vegetation Type or Land Use
M78-T4 SWA to M78-T4 STR - AS1 Footpath is the area for the personnel to walk between the structure and OPGW pulling sites. When connecting the ground wire to the new OPGW, the personnel need to walk the wire between the sites to the respective V-Groove/tensioner to connect (sock) the wires together.	The Proposed Project area is characterized by undeveloped, open desert lands.	0.01	*Larrea tridentata* Shrubland Alliance	Undisturbed	0.01
M78-T4 SWA to M78-T4 STR - BS1 Footpath is the area for the personnel to walk between the structure and OPGW pulling sites. When connecting the ground wire to the new OPGW, the personnel need to walk the wire between the sites to the respective V-Groove/tensioner to connect (sock) the wires together.	The Proposed Project area is characterized by undeveloped, open desert lands.	0.01	*Larrea tridentata* Shrubland Alliance	Undisturbed	0.01
NSWA is a temporary existing 12-foot two-track road to allow access for support to LZ_92.	The Proposed Project area is characterized by undeveloped, open desert lands.	0.06	Developed (includes existing roads, pullouts)	Previously disturbed	0.06
LZ_92 (Figure 2, Page 5 of 16)					
Designated helicopter LZs are close to OPGW work areas. Material and personnel will be flown from these locations to the respective structures to complete detaching and attaching of the OPGW to the structure. These sites are used for helicopter operations, including refueling and related support during the OPGW installation.	The Proposed Project area is characterized by undeveloped, open desert lands.	0.24	*Larrea tridentata* Shrubland Alliance	Undisturbed	0.24
M116-T2 (Figure 2, Page 5 of 16)					
NSWA is the existing disturbed work area proposed to be added to allow for a crane setup to complete the connecting (socking) of the ground wires together. This is an angle structure where the ground wire comes in and dead-ends from both directions at the structure. The crew needs to connect (sock) the ground wire together to allow it to be removed. Angle structures will be reviewed on a case-by-case basis based on the angle the wire that goes around the structure (inside or outside angle). Brackets may need to be developed to assist with the pulling operations. Cranes are preferred at these locations due to the heavy strain on the traveler and adjustments that may need to be made to allow for the "free rolling" of the traveler.	The Proposed Project area is characterized by undeveloped, open desert lands	0.17	*Larrea tridentata* Shrubland Alliance	Previously Disturbed	0.17
LZ_128 (Figure 2, Page 7 of 16)					
Designated helicopter LZs are close to OPGW work areas. Material and personnel will be flown from these locations to the respective structures	The Proposed Project area is characterized by undeveloped, open desert lands	0.03	Developed (includes existing roads, pullouts)	Previously Disturbed	0.01

Associated Work Areas, Description of Work	Site Condition	Approximate Acreage of Disturbance Per Work Area[1]	Vegetation Type (If Vegetated) or Land Use	Disturbance (Previously Disturbed or Undisturbed)	Approximate Acreage of Disturbance Per Vegetation Type or Land Use
to complete detaching and attaching of the OPGW to the structure. These sites are used for helicopter operations, including refueling and related support during the OPGW installation.			*Yucca schidigera* Shrubland Alliance	Undisturbed	0.02
M117-T1 (Figure 2, Page 7 of 16					
NSWA is the existing disturbed work area proposed to be added to allow for a crane setup to complete the connecting (socking) of the ground wires together. This is a ground wire transposition structure where the ground wire comes in and dead-ends from both directions at the structure. The crew needs to connect (sock) the ground wire together to allow it to be removed.	The Proposed Project area is characterized by undeveloped, open desert lands	0.15	*Larrea tridentata* Shrubland Alliance	Previously Disturbed	0.15
M122-T2 (Figure 2, Pages 8 and 9)					
NSWA is the existing disturbed work area proposed to be added to allow for a crane setup to complete the connecting (socking) of the ground wires together. This is an angle structure where the ground wire comes in and dead-ends from both directions at the structure. The crew needs to connect (sock) the ground wire together to allow it to be removed. Angle structures will be reviewed on a case-by-case basis based on the angle the wire that goes around the structure (inside or outside angle). Brackets may need to be developed to assist with the pulling operations. Cranes are preferred at these locations due to the heavy strain on the traveler and adjustments that may need to be made to allow for the "free rolling" of the traveler.	The Proposed Project area is characterized by undeveloped, open desert lands	0.15	*Larrea tridentata* Shrubland Alliance	Previously Disturbed	0.15
M128-T1 (Figure 2, Page 10 of 16)					
SWA is the modified work area is proposed to utilize the entire previously disturbed area for crane setup. In addition, the four outriggers of the crane would encroach on non-disturbed areas (each outrigger pad is 4 feet by 4 feet). The original SWA was revised by taking space identified along the existing main access road and using it for the proposed area around the structure.	The Proposed Project area is characterized by undeveloped, open desert lands.	0.18	Developed (includes roads, homes, ornamental areas)	Previously Disturbed	0.04
			Larrea tridentata - Ambrosia dumosa Shrubland Alliance		0.04
			Larrea tridentata - Ambrosia dumosa Shrubland Alliance	Previously Disturbed	0.08
			Yucca schidigera Shrubland Alliance	Previously Disturbed	0.01
STR-BS1 is the location where equipment will be staged to pull in the new OPGW. These sites can have either the V-Groove, which pulls in	The Proposed Project area is characterized by undeveloped, open desert lands.	0.28	Developed (includes existing roads, pullouts)	Previously Disturbed	0.05

Associated Work Areas, Description of Work	Site Condition	Approximate Acreage of Disturbance Per Work Area[1]	Vegetation Type (If Vegetated) or Land Use	Disturbance (Previously Disturbed or Undisturbed)	Approximate Acreage of Disturbance Per Vegetation Type or Land Use
and reels in the old ground wire, or the tensioner, which has the new OPGW and spools it out as it is begin pulled in by the V-Groove at the other end of the wire pull.			*Larrea tridentata - Ambrosia dumosa* Shrubland Alliance	Previously Disturbed	0.02
			Larrea tridentata - Ambrosia dumosa Shrubland Alliance	Undisturbed	0.19
			Senegalia greggii – Hyptis emoryi – Justicia californica Shrubland Alliance	Undisturbed	0.01
STR-AS1 is the location where equipment will be staged to pull in the new OPGW. These sites can have either the V-Groove, which pulls in and reels in the old ground wire, or the tensioner, which has the new OPGW and spools it out as it is begin pulled in by the V-Groove at the other end of the wire pull.	The Proposed Project area is characterized by undeveloped, open desert lands.	0.32	Developed (includes existing roads, pullouts)	Previously Disturbed	0.05
			Larrea tridentata - Ambrosia dumosa Shrubland Alliance	Previously Disturbed	0.01
			Larrea tridentata - Ambrosia dumosa Shrubland Alliance	Undisturbed	0.26
M128-T1 SWA to M128-T1 STR-AS1 Footpath is the area for the personnel to walk between the structure and OPGW pulling sites. When connecting the ground wire to the new OPGW, the personnel need to walk the wire between the sites to the respective V-Groove/tensioner to connect (sock) the wires together.	The Proposed Project area is characterized by undeveloped, open desert lands.	0.01	*Larrea tridentata - Ambrosia dumosa* Shrubland Alliance	Undisturbed	0.01
M128-T1 SWA to M128-T1 STR-BS1 Footpath is the area for the personnel to walk between the structure and OPGW pulling sites. When connecting the ground wire to the new OPGW, the personnel need to walk the wire between the sites to the respective V-Groove/tensioner to connect (sock) the wires together.	The Proposed Project area is characterized by undeveloped, open desert lands.	0.01	*Larrea tridentata - Ambrosia dumosa* Shrubland Alliance	Undisturbed	0.01
LZ_139 (Figure 2, Page 10 of 16)					
Designated helicopter LZs are close to OPGW work areas. Material and personnel will be flown from these locations to the respective structures to complete detaching and attaching of the OPGW to the structure. These sites are used for helicopter operations, including refueling and related support during the OPGW installation.	The Proposed Project area is characterized by undeveloped, open desert lands.	0.63	*Larrea tridentata - Ambrosia dumosa* Shrubland Alliance	Previously Disturbed	0.06
			Larrea tridentata - Ambrosia dumosa Shrubland Alliance	Previously Disturbed	0.02
			Larrea tridentata - Ambrosia dumosa Shrubland Alliance	Undisturbed	0.20
			Yucca schidigera Shrubland Alliance	Previously Disturbed	0.02
			Yucca schidigera Shrubland Alliance	Undisturbed	0.33

Associated Work Areas, Description of Work	Site Condition	Approximate Acreage of Disturbance Per Work Area[1]	Vegetation Type (If Vegetated) or Land Use	Disturbance (Previously Disturbed or Undisturbed)	Approximate Acreage of Disturbance Per Vegetation Type or Land Use
LZ-140 (Figure 2, Page 11 of 16)					
Designated helicopter LZs are close to OPGW work areas. Material and personnel will be flown from these locations to the respective structures to complete detaching and attaching of the OPGW to the structure. These sites are used for helicopter operations, including refueling and related support during the OPGW installation.	The Proposed Project area is characterized by undeveloped, open desert lands.	0.04	Developed (includes existing roads, pullouts)	Previously Disturbed	0.02
			Larrea tridentata - Ambrosia dumosa Shrubland Alliance	Previously Disturbed	0.01
			Larrea tridentata - Ambrosia dumosa Shrubland Alliance	Undisturbed	0.01
M164-T1 (Figure 2, Page 15 of 16)					
NSWA is the disturbed work area proposed to be added to allow for a crane setup to complete the connecting (socking) of the ground wires together. This is a ground wire transposition structure where the ground wire comes in and dead-ends from both directions at the structure. The crew needs to connect (sock) the ground wire together to allow it to be removed.	The Proposed Project area is characterized by undeveloped, open desert lands.	0.21	*Larrea tridentata* Shrubland Alliance	Previously Disturbed	0.21
LZ 93 (Figure 3, Page 1)					
Designated helicopter LZs are close to OPGW work areas. Material and personnel will be flown from these locations to the respective structures to complete detaching and attaching of the OPGW to the structure. These sites are used for helicopter operations, including refueling and related support during the OPGW installation.		0.19	*Larrea tridentata* Shrubland Alliance	Undisturbed	0.19
Staging Yards					
Fenner Staging Yard	The Proposed Project area is characterized by mostly undeveloped and open lands, utilities, and infrastructure.	5.39	Developed (includes roads, homes, ornamental areas)	Previously Developed	5.39
Ludlow Alternate Staging Yard	The Proposed Project area is characterized by mostly undeveloped and open lands, utilities, and infrastructure.	3.18	Barren – Not Developed. Developed (includes roads, homes, ornamental areas)	Previously Developed	3.18

[1]The numbers in this column have been rounded from the last column, Approximate Acreage of Disturbance Per Vegetation, and therefore may not be exact.

Project Activity Schedule

Construction will start May 6, 2021 near the California/Nevada border area on the Lugo-Mohave transmission line and continue west to M68-T4 (western most existing structure under CPUC jurisdiction). The overhead transmission construction schedule will be completed continuously while the line is de-energized. However, the line cannot be de-energized during summer months (July through September) and will need to be put back into service. The construction schedule on the Lugo-Mohave transmission line will include a summer hiatus.

The schedule for the overhead sections being completed on non-federal (CPUC) lands is identified below.

Project Component	Construction Start Date	Operation Start Date
OPGW Construction on the Lugo-Mohave Transmission Line from California/Nevada border area to M68-T4	May 2021	November 2021
Ludlow Alternate Yard	May 2021	November 2021
Fenner Yard	May 2021	November 2021

Description of Project Activities Requested

Access Roads

Construction improvements included within this NTPR will not require the construction of new access roads. Access will be provided from existing utility access roads and public access roads to/from the Project site.

Preconstruction Activities

The appropriate staking and preconstruction surveys will be completed and transmitted to the CPUC for review and approval. The Storm Water Pollution Prevention Plan (SWPPP) requirements will be implemented (i.e., Best Management Practices [BMP]).

OPGW Construction Activities

Construction activities to be performed are as follows:

- Remove OHGW and install OPGW on existing towers of the Lugo-Mohave 500 kV transmission line.
- Beginning at the state line and proceeding west, remove the southerly OHGW and replace with an OPGW. The use of existing roads and helicopter landing zones will support the construction activities.
- The OPGW wire will be spliced at several tower sites, including the mid-line series capacitor. The splice structure locations are: M68-T4, M69-T1, M78-T4, and M128-T1. In addition, a one-or two-person crew will access these locations to test the fibers after the OPGW has been installed. This crew will use the designated SWA at each of these locations.
- Complete modifications to strengthen the existing structures that will be configured with the new OPGW splice locations. These modifications will occur at the following existing structures: M68-T4, M69-T1, M69-T3, M78-T4, M116-T2, M117-T1, M122-T2, M128-T1, and M164-T1.
- Access to various towers on BLM land via existing right-of-way access roads within CPUC's jurisdiction.

OPGW construction will mostly be contained within the existing overhead transmission line ROWs; therefore, minimal site preparation will be required for this project component. The OPGW wire will be spliced at several tower sites, including the mid-line series capacitor.

Clearing and or drive/crush of vegetation will be conducted at work sites of the overhead work areas to provide sufficient work space. A few sites may need minor grading to provide a flat level work space. Stormwater Pollution Prevention Plan (SWPPP) requirements will be implemented (i.e., best management practices [BMP]) prior to clearing or minor grading. Rumble plates may be placed on existing dirt access road that provide access to the overhead sites.

Installation of overhead telecommunication facilities will be implemented by attaching the fiber optic cable to structures, replacing one of two existing OHGWs. The OPGW, which consists of a fiber optic cable core surrounded by strands of steel and aluminum wire, will be pulled into position using the existing OHGW.

Two trucks will be used for the two OPGW pull sites; one site will have a puller and one site will have a tensioner with the OPGW reel set at each end of the cable. The Fiber optic OPGW cables are then pulled between two selected splice structures along the existing Lugo-Mohave transmission lines.

Cable splices will be required at towers located at the extent of each cable length. The majority of the lattice steel towers with new OPGW spices will require structure modifications for the new configuration or for strength, which include ground wire peak modifications, body modifications, and/or bent steel repairs.

Construction also includes modification and strengthening of the ground wire peak of existing lattice steel towers where OPGW splices would occur (some towers also require minor modifications to the steel in the tower body). In order to accommodate dead-end OPGW hardware assembly and the associated loads, some of the existing suspension structures being used for splicing locations would require minor bracing reinforcement to the body of the tower. These modifications will occur at the following existing structures: M68-T4, M69-T1, M69-T3, M78-T4, M116-T2, M117-T1, M122-T2, M128-T1, and M164-T1.

OPGW Construction	Major Construction Activities
OPGW Construction on the Lugo-Mohave Transmission Line	Remove OHGW and replace with OPGW on the Lugo-Mohave Transmission line Modify and strengthen the ground wire peak of existing lattice steel towers where OPGW splices would occur (some towers also require minor modifications to the steel in the tower body)

Equipment and vehicles that may be used during construction include the following:

- Hughes 530F Helicopter
- Fuel, helicopter support truck
- Backhoe-loader
- Boom/crane truck
- R/T Crane
- Bullwheel puller
- D8 Cat
- 744 front end loader
- Manlift/bucket truck
- Skid steer mulcher
- Static truck/tensioner
- Wire truck/trailer

- Utility vehicle
- 1-ton, ¾-ton trucks 4x4 pickup truck
- Lowboy truck, trailer
- Splicing lab vehicle
- Worker commuter vehicles

Construction will be performed by either SCE construction crews or contractors. Multiple crews will work concurrently when possible; however, the estimated deployment and number of crew members will vary depending on factors such as material and equipment availability, weather, and construction scheduling. It is anticipated that approximately 44 overhead construction personnel will be working at the Project site(s) on any given day. The landscape contractor is responsible for implanting mitigation plans during construction such as the Special Status Plant Salvage and Relocation Plan, Cacti and Yucca Salvage and Relocation Plan, and Habitat Restoration and Revegetation Plan (HRRP). Approximately 20 landscape construction personnel will be working at the Project site(s) on any given day.

Materials associated with construction will be delivered via truck by vendors and suppliers directly to the site or to the nearest staging yard and/or substation for storage and distribution to the specific sites.

Any land that may be temporarily disturbed as a result of this Project will be restored in accordance with the HRRP following completion of the OPGW construction sitework.

Construction activities will mostly be maintained within the existing ROWs; therefore, minimal site preparation will be necessary for installation of these components. Stormwater BMPs will be installed at various work sites required by the Project's SWPPP if necessary. Construction BMPs will be replaced with final BMPs following completion of the OPGW construction sitework.

Other Activities

Foot Access during Ground Wire/OPGW Installation

Beta Engineering requests approval to walk (footpaths) in unapproved Project areas to pull the ground wire/OPGW during installation at Structures M78-T4 and M128-T1.

Background:

Pulling the ground wire/OPGW lead line will most likely be required in every wire pull but will not be required in every wire pull but not be required in every span. In order to pull out the old ground wire and pull in the new OPGW, they need to be connected at each end to the appropriate machine (V-groove or tensioner). The workers will walk the line from the structure to the vehicles parked in the Project approved areas.

Protocol:

1. The surveyors will coordinate with EPG and review project maps and data to ensure that areas designated as Environmentally Sensitive Areas (ESAs) will not be impacted.
2. The EPG Biological Monitors will conduct sweeps of the areas and a 25 foot buffer.
3. The EPG Biological Monitors will discuss with the surveyor any resources in the area such as burrows or sensitive plants.
4. All access will be by foot traffic. Equipment will be the lead line, ground wire, or OPGW. Occasionally the line/wire may touch the ground as it is being pulled by hand.
5. The crews will gently rake the ground to remove evidence of "visible paths".
6. The EPG Biological Monitor will conduct a final sweep of the site prior to mobilizing to the next span.

On longer foot paths to the vehicles, the ground wire may have occasion to be drug on the ground. On those longer paths, the protocol will be as follows:

1. The construction foreman and the Biological Monitor will consult and determine where the wire may make contract with the ground.
2. The foreman and Biological Monitor will develop a sketch of the area and select a path to avoid sensitive resources.
3. If there are no sensitive resources work can proceed with no further action required.
4. If there are sensitive resources along the path and 25-foot buffer described above, the following additional steps are required.
5. The contractor will bring additional contractor personnel to the work area to carry the wire.
6. If contact is made with the ground:
    - The Biological Monitor will record the location on the sketch and confirm sensitive resources are not impacted;
    - If the Authorized Biologist or Biological Monitor determines there is a risk to sensitive resources, the foreman and monitor will select an alternate path; and
    - The Authorized Biologist or Biological Monitor will identify that contact was made and record in FRED.
7. Impacts to sensitive resources, if any, will be reported in FRED.

Typical daily construction activities will include use of construction trailers and portable restrooms, personal parking for construction personnel, export of removed wire, and installation of OPGW related components and structure modifications. Other daily construction activities may include refueling and equipment maintenance and repair, containment of waste disposal, and component assembly.

Access to Towers on BLM Lands

1. Crews will travel from M164-T3, bypassing CPUC structures M164-T2 & M164-T1, and arrive at M163-T4 to work on BLM CA lands as authorized in ATC 6B.
2. Crews will travel again from M163-T2, bypassing CPUC structures M163-T1, M162-T1, M162-T2, & M162-T3, and arrive at M161-T3 in order to continue work on BLM CA Lands, as authorized in ATC 6B.

As part of observing and following ELM Project mitigation measures and protocols, sweeps will be done by monitors prior to any movement/driving in the CPUC areas. Monitors will escort the American Power and Gothic vehicles. Gothic will be installing BMPs, salvaging and replacing cacti/yucca, and salvaging and replacing special status as required.

Staging Yards

SCE's NTP Request included construction of the Ludlow Alternate and Fenner Staging Yards. The Fenner staging yard is located on the north side of I-40, approximately 10 miles south of Goffs, California. The Ludlow Alternate Yard is located on the south side of I-40 at the unincorporated town of Ludlow.

Site preparation required for the staging yard may include vegetation clearing and grubbing, with minimal grading to provide drainage berms for stormwater management, and SWPPP requirements will be implemented. Onsite parking will be provided for construction personnel.

The staging yards will serve as a reporting location for workers, vehicle and equipment parking, and material storage during project execution. The yard may be fenced and have construction trailers for supervisory and clerical personnel and may be lit for staging and security. Normal maintenance and refueling of construction equipment would be conducted at the yard; refueling and storage of fuels would be in accordance with the SWPPPs.

The need for temporary power would be determined based on the type of equipment and facilities to be used for construction. If existing distribution lines are available, a temporary service and meter may be used to provide electrical power at the yard. If it is determined that temporary power is not available, then a portable generator may be used intermittently for electrical power.

Materials commonly stored would include, but not be limited to, construction trailers; construction equipment; portable sanitation facilities; electrical equipment such as circuit breakers, steel/wood poles, OHGW or OPGW reels, marker balls, hardware, insulators, and cross arms; signage; consumables (e.g., fuel); waste materials for salvaging, recycling, or disposal; and BMP materials (e.g., straw wattles, gravel, and silt fences).

The staging yards may also serve as assembly points for crews from where they would be transported to work sites. The majority of materials associated with the construction will be delivered by truck to the staging yard for subsequent distribution to work areas. Some materials may be delivered directly to construction work areas.

Night Use

OPGW construction work is not anticipated to occur at night. However, crews may travel to and setup at sites before sunrise or clean up and travel from sites after sunset. The Project has submitted a request to the applicable local authority having jurisdiction to travel to the work areas before official sunrise under the direction of the Authorized Biologist during periods of sufficient sunlight. Vehicle escorts will be provided as necessary as determined by the Authorized Biologist in accordance with the Desert Tortoise Take Avoidance and Minimization Plan. If it becomes necessary, the Project will also submit a request to travel from the sites after sunset during periods of sufficient sunlight.

Helicopter Use

Helicopters will be used during the OPGW installation primarily for cable stringing, including ferrying material, equipment, or personnel. Helicopter operations, including refueling and related support, typically occur at staging yards or helicopter landing zones (LZs) close to OPGW construction. Helicopters may also use designated helicopter landing zones (LZ) situated throughout the Project area along the ROW. In emergency situations, when an LZ or staging yard cannot be safely reached, a helicopter may land on any access or spur road.

Helicopters typically used for OPGW stringing activities include light and medium duty helicopters. Potential bases for operation would include the Ludlow Airport or others in close proximity to the Project site. Flight paths would be determined immediately prior to construction by the helicopter contractor and filed with the appropriate authorities as required. The Project received approval of the Helicopter Use Plan on November 17, 2020.

Helicopter LZs are listed and described in the table in Site Locations and Conditions Section along with other existing structures and the associated work areas. In addition, LZ_93 is shown on the map with the Ludlow Alternate Staging Yard because of its proximity to that yard. Below is a complete list of LZs included in this document and their approximate location in reference to a project component.

Helicopter Landing Zone (LZ)	Approximate Location
LZ_83	West of M69-T1
LZ_92	Southwest of M78-T4.

Helicopter Landing Zone (LZ)	Approximate Location
LZ_93	Ludlow Airport. LZ_93 (north side) and the Ludlow Alternate Staging Yard (south side) are across Interstate 40 from each other.
LZ_128	Approximately 500 feet northeast of M116-T5.
LZ_139	In close proximity and south of M128-T1.
LZ_140	In close proximity and south of M128-T2.

Helicopter use is not required to construct the Ludlow Alternate or Fenner Staging Yards; however, the yard may be used as a fly yard for helicopters throughout the course of the ELM Project.

Water Use

Construction water will be required for dust control at this project site. Construction water will be obtained from a CPUC approved water source. The Fort Cady California Corporation in Newberry Springs would likely provide water for construction activities. This groundwater source is a private groundwater well. NTPR-1 contained information on this source of water and a map of its location.

Other Activities

Other daily construction activities may include refueling and equipment maintenance and repair, material stockpiling, containment of waste disposal, and structure assembly.

CPUC Evaluation of Preconstruction Mitigation Implementation

All applicable project mitigation measures (MMs), Applicant Proposed Measures (APMs), compliance plans, and permit conditions shall be implemented. Some measures have on-going/time-sensitive requirements and are required to be implemented prior to and during construction where applicable. Section 7.1.1 in SCE's NTP request provides the required environmental submittals for the issue areas addressed by the Eldorado Lugo Mohave Upgrade Project Final MND. The following contains a status of applicable MM and APM required submittals and requirements. Any outstanding requirements are also included:

Aesthetics: As required by MM AES-1, design fundamentals that reduce the visual contrast of new facilities with the characteristic landscape were used by SCE in the final design of the approved project. SCE prepared a Project Design and Surface Treatment Plan for CPUC review and approval. The Plan includes details of how the design will minimize visual intrusion and contrast by effectively blending earthwork, vegetation manipulation, and facilities with the landscape. The Project Design and Surface Treatment Plan was approved by the CPUC on September 10, 2020. In compliance with MM AES-2, SCE shall screen construction activities from view. To reduce significant impacts associated with construction yards, staging areas, and material and equipment storage areas shall be visually screened using temporary screening fencing, with the exception of construction yards, staging areas, and material and equipment storage areas on existing substation properties.

As required by MM AES-3, only the minimum amount of vegetation necessary for the construction of structures and facilities shall be removed during construction. As required by MM AES-4, SCE shall avoid all night lighting where possible and minimize its use under all circumstances.

Air Quality: As required by MM AQ-1, SCE shall prepare and implement Dust Control Plan that describes all measures that will be implemented for the project. The plan includes restrictions for vehicle traffic

speeds on unpaved roads, watering frequencies for disturbed areas, covering loaded haul vehicles or provide adequate freeboard, and the reduction of non-essential earth-moving activity under high wind conditions. In addition, in compliance with APM AIR-03, off-road diesel construction equipment with a rating between 100 and 750 horsepower would be required to use engines compliant with the U.S. Environmental Protection Agency's final Tier 4 non-road engine standards. Additionally, as required by APMs AIR-03, AIR-04, and AIR-05, limitations on equipment idling would be implemented, ridesharing would be encouraged, and construction diesel engines would be maintained in good working order. The Dust Control Plan was approved by the CPUC on November 17, 2020.

Biological Resources: A Worker Environmental Awareness Program (WEAP) will be prepared to educate on-site workers about the proposed Project's sensitive environmental issues in accordance with MM BR-2. Throughout the duration of construction, SCE shall be responsible for ensuring that all on-site project personnel receive this training prior to beginning work. SCE shall maintain a list of all personnel who have completed the WEAP training. The WEAP was approved by the CPUC on September 10, 2020.

SCE prepared a Habitat Restoration and Revegetation Plan (HRRP) in accordance with MM BR-4 to outline the restoration or revegetation of all temporary disturbance areas. The HRRP was approved by the CPUC on December 11, 2020.

An Integrated Weed Management Plan (IWMP) was developed in compliance with MM BR-5 to propose methods of preventing or controlling project-related spread or introduction of weeds. The IWMP was approved by the CPUC on September 10, 2020.

As required by MM BR-6, a Cacti and Yucca Salvage Plan was developed and approved by the CPUC on December 11, 2020. Also a requirement of MM BR-6, a Special-Status Plant Salvage and Relocation Plan was developed. This plan was approved by CPUC on January 27, 2021.

As required by MM BR-8, SCE is required to compensate for all desert tortoise habitat loss. SCE prepared a Habitat Conservation Plan documenting the mitigation strategy for impacts to desert tortoise habitat. The HCP was approved by the CPUC on October 30, 2020.

Consistent with the requirements of MM BR-9, a Raven Management Plan was developed and approved by the CPUC on November 24, 2020.

SCE prepared a Nesting Bird Management Plan (NBMP) consistent with MM BR-10. This plan was developed to describe methods to minimize potential project effects to nesting birds, and to avoid any potential for unauthorized take. The NBMP was developed in coordination with CDFW and USFWS and was approved by the CPUC on December 11, 2020.

As required by Mitigation Measure BR-11, a Burrowing Owl Passive Relocation Plan was developed and approved by the CPUC on November 24, 2020.

Preconstruction surveys for special-status plants and wildlife will be conducted consistent with MMs BR-6, BR-9, BR-11, BR-12, and BR-13. SCE will ensure wildlife impact avoidance and minimization through measures outlined in MM BR-7 during project construction.

Cultural Resources: As required by MM CR-3, a Cultural Resources Management Plan (CRMP) was prepared by SCE. The CRMP was approved by the CPUC on December 9, 2020. A Tribal Engagement Plan was prepared and included in the CRMP and the CRMP was provided to the tribes for review, consistent with APM-TCR-2.

Hazards and Hazardous Materials. SCE prepared and will implement a Project-specific Hazardous Materials and Waste Management Plan pursuant to Title 24, Part 9 of the California Code of Regulations (CCR) that identifies hazardous materials to be transported, used, and stored on site for the proposed

construction activities as well as hazardous wastes generated onsite as a result of the proposed construction activities and appropriate management procedures**.** The Hazardous Materials and Waste Management Plan was approved by the CPUC on October 30, 2020.

Hydrology and Water Quality. SCE submitted Erosion Control Plans included in the Storm Water Pollution Prevention Plans developed for the project.

Noise. Best Management Practices for construction noise management will be implemented as outlined in MM N-1 to reduce construction noise levels to the extent feasible. Construction noise shall be confined to days and hours consistent with local jurisdiction regulations. Construction traffic shall be routed away from residences, recreational facilities, and schools to the maximum extent feasible.

Consistent with APMs NOI-01 and NOI-02, SCE will ensure that helicopter operations at landing zones at landing zones within 700-feet of occupied residences are limited to 2 hours per day and that helicopters maintain a height of at least 500-feet when passing over residential areas, except at temporary construction areas or when actively assisting with conductor stringing.

Paleontological Resources: A Paleontological Resource Mitigation and Monitoring Plan (PRMMP) was prepared for the Eldorado-Lugo-Mohave Upgrade Project. The PRRMP was approved by the CPUC on November 17, 2020.

Traffic and Transportation. Consistent with MM T-1, SCE will prepare and implement a Construction Traffic Control Plan. A Helicopter Use Plan was prepared for CPUC approval to identify the specific locations requiring deconstruction of existing project facilities or construction of new or replacement project facilities as outlined in MM T-3. The plan identifies the specific locations requiring deconstruction or construction work using helicopters. The Helicopter Use Plan was approved by the CPUC on November 17, 2020. A revised Plan was approved on May 11, 2021 which incorporated an additional helicopter operator.

Wildfire. SCE prepared a Fire Management Plan as required by MM WF-1. The Plan requires that a qualified Fire Marshal be established to implement and enforce all provisions of the Fire Management Plan. The Fire Management Plan was approved by the CPUC on November 17, 2020.

Conditions of NTP Approval

The conditions noted below shall be met by SCE and its contractors prior to the start of construction:

- All applicable project mitigation measures, APMs, compliance plans, and permit conditions shall be implemented. Some measures have on-going/time-sensitive requirements and shall be implemented prior to and during construction where applicable.
- Copies of all relevant permits, compliance plans, and this NTP shall be available on site for the duration of construction activities. All permits and plans shall be made available to the CPUC Environmental Monitors (EMs) upon request.
- To capture ongoing project and resource changes during construction, updated construction and resource maps, and digital spatial data (KML/KMZ or GIS data viewable from mobile device) shall be made available to SCE/contractor field monitoring staff and the CPUC EMs as changes occur.
- **BR-1:** SCE shall submit resumes of biological monitors to the CPUC for approval at least 10 working days prior to the monitor commencing field duties.
- **BR-3:** Prior to any ground-disturbing activities, SCE shall provide CPUC and BLM with final engineering GIS shapefiles depicting all temporary and permanent disturbance areas, as well as summary data on

temporary and permanent disturbance for each vegetation or habitat type. CPUC EM to verify site staking.

- **BR-7:** Minimization measures including but not limited to adhering to the 15 mile per hour speed limit, covering pipes, tanks and excavations will be implemented throughout construction.
- **BR-10:** If any access routes occur within "one-mile line-of-sight and one-half mile no line-of-sight golden eagle buffer, USFWS review and approval shall be obtained prior to use to ensure that project construction activities do not result in injury or disturbance" to nesting golden eagles. Signage shall be installed along the approved route prior to its use.
- **MM BR-13:** SCE shall conduct pre-construction surveys for desert kit fox, ringtail, and American badger no more than 30 days prior to initiation of construction activities and submit to CPUC and BLM for review and approval.
- **MMs BR-6, BR-9, BR-11, BR-12, and BR-13**: Conduct reconstruction surveys for special-status plants and wildlife. Results of preconstruction surveys shall be provided to the CPUC for review and approval.
- **APM-CUL-1:** SCE shall perform surveys prior to construction for any Proposed Project areas not yet surveyed (e.g., new or modified staging areas, pull sites, or other work areas).
- **MM HWQ-2:** If Horizontal Directional Drilling (HDD) is required, an HHD Fluid Management Plan shall be prepared and implemented.
- **MM N-2:** No less than 15 days prior to construction that would occur within 500 feet of residences, businesses, or other occupied structures, SCE shall distribute a public notice mailer. SCE shall also establish a toll-free telephone number for receiving questions or complaints during construction and develop procedures for responding to callers. SCE shall address all complaints within one week of when the complaint is filed, and shall provide to the CPUC, within 15 days of the end of each month, a monthly report with records of all complaints and responses. SCE shall mail the notice to all residents or property owners within 500 feet of the right-of-way or within 1,000 feet of helicopter fly yards and flight paths.
- **MM T-1:** Prior to the start of construction of a project component that could affect traffic (e.g., OPGW reconductoring over public roadways), SCE shall submit a Construction Traffic Control Plan for review and approval by state and local agencies responsible for public roads that would be directly affected by the construction activities and/or would require permits and approvals.
- **MM T-2:** Prior to construction, SCE shall establish the pre-construction conditions of the roads within 500 feet in each direction of project access points and confer with State and local agencies.
- **APM-TCR-1:** Provide monitoring reports to the CPUC on a monthly basis.
- **MM UT-1:** Prior to commencing construction or as soon as such data are available, if it is not available before construction, SCE shall determine and report to CPUC and BLM the location of adjacent utilities and other metallic or conducting objects susceptible to induced voltages and currents. Prior to the in-service date of the Proposed Project series capacitors, SCE shall ensure that the necessary grounding or other appropriate measures to provide appropriate cathodic protection has been installed and shall confirm this to the CPUC and BLM.
- **MM UT-3:** SCE shall provide CPUC and BLM metallic object locations that may present a shock hazard as soon as available and prepare an Induced Current Touch Study for CPUC and BLM review and approval.
- **MMCRP:** Once preconstruction survey reports are submitted, the CPUC EMs shall conduct site reviews to verify that the required site boundary and resource staking has been installed in work areas. Typically, each work site shall be delineated by markers (usually wooden stakes) which define the approved work area boundaries. Any Environmentally Sensitive Area (ESA) identified during

preconstruction surveys shall also be delineated for avoidance. Only after the preconstruction survey reports and staking verification reviews occur, is construction permitted to begin.

- **MMCRP:** SCE will prepare and distribute a weekly environmental compliance status report for distribution to the CPUC consistent with project permits, mitigation measures, and the Mitigation Monitoring, Compliance and Reporting Plan (MMCRP). Prior to the start of monitoring activities, SCE shall provide a proposed format describing content and organization of Weekly Compliance Reports for CPUC review and approval.
- **MMCRP:** No movement or staging of construction vehicles or equipment shall be allowed outside of the approved areas. If additional temporary workspace areas or access routes, or changes in technique and mitigation implementation to a lesser level are required, a Temporary Extra Work Space (TEWS) or Minor Project Change (MPC) request shall be submitted for CPUC review (MMCRP Section 4.6). In addition, all water sources and disposal sites not previously identified shall require a TEWS or an MPR.
- As clarified in a May 6, 2021 email to SCE from CDFW, biological sweeps are to occur after sunrise and biologist shall not have limited visibility due to darkness.
- Any variances from local jurisdictions on allowable workdays/hours shall be provided to the CPUC prior to their implementation.
- The protocols of the Contractor Fatigue Management Plan shall be implemented during extended workdays.

Sincerely,

Eric Chiang

Eric Chiang
CPUC Environmental Project Manager

cc: V. Strong, Aspen