# **PUBLIC UTILITIES COMMISSION**

505 VAN NESS AVENUE SAN FRANCISCO, CA 94102-3298

September 26, 2008

Donald Johnson Project Manager Southern California Edison 2131 Walnut Grove Ave. Rosemead, C 911770

RE: SCE Antelope Transmission Project (Antelope-Vincent 500 kV Transmission Line) Segment 2 - Notice to Proceed (NTP #14)

Dear Mr. Johnson,

Southern Californian Edison (SCE) has requested authorization from the California Public Utilities Commission (CPUC) for construction of the Antelope Transmission Project (Antelope-Vincent 500 kV Transmission Line), Segment 2.

The SCE Antelope 500 kV Transmission Project (Project) was evaluated in accordance with the California Environmental Quality Act and a Certification of Public Convenience and Necessity (CPCN) was granted by CPUC Docket #A.04-12-008, SCH #2006041160 on March 15, 2007. NTP #14 is granted by CPUC for the proposed activities based on the following factors:

SCE submitted the following information in their NTP request:

### **Project Description**

Construction of Segment 2 and the upgrades to the Vincent Substation area anticipated to begin July 2008 and continue through April 2009.

Segment 2 involves the construction of a new 21.0-mile single-circuit 500 kV transmission line initially energized at 220 kV and 0.6 miles of a new 220 kV transmission line connecting SCE's Antelope Substation in the City of Lancaster to the Vincent Substation in incorporated Los Angeles County in the community of Acton.

Segment 2 is divided into five construction sections as follows:

- Section 1 extends from the Antelope Substation on the northern terminus of Segment 2 in the City of Lancaster southeasterly to the California Aqueduct in the City of Palmdale
- Section 2 continues from the California Aqueduct to Tower Construction Site 37 through the City of Palmdale and portions of the unincorporated area of the County of Los Angeles
- Section 3 continues southeasterly from Tower Construction Site 37 to Tower Construction Site 79 in the City of Palmdale
- Section 4 extends through northern portions of the unincorporated area of the County of Los Angeles from Tower Construction Site 79 to Tower Construction Site 115 near the Vincent Substation
- Section 5 includes the 220 kV shoofly south and west around the Vincent Substation

Additionally, Vincent Substation will undergo modifications to be equipped to serve as the termination point for the 220 kV line

The work on Segment 3 will be addressed under a separate NTP.

The Project also includes demolition and relocation of 4.4 miles of existing 66 kV sub-transmission line from Project Mile S2-0.0 to Project Mile S2-4.4 to accommodate construction of the new 500 kV transmission line in the right-of-way (ROW).

The Project will utilize facilities at the Antelope Substation that will be installed as part of the substation upgrades associated with the Antelope-Pardee 500 kV Transmission Project (Segment 1), including use of Antelope Substation Position No. 11.1. The upgrades to Antelope Substation installed as part of the Antelope-Pardee Transmission Project (Segment 1), and utilized by the Project include infrastructure required to increase the substation rating from 220 kV to 500 kV. During the initial substation expansion (associated with Segment 1), the four additional 220 kV line positions will be installed. The installation of these Line Positions at Antelope Substation would also include upgrading the existing 220 kV buses to 3700A, as well as installation of six new 220 kV circuit breakers, four line and eight bus dead-end structures, and fourteen 220 kV disconnect switches.

Since Antelope Substation would provide both the end of Segment 3A and the beginning of Segment 2, separate upgrades to the existing 220 kV switchyard will be required for each segment. Upgrades for the Project to the existing Line Position No. 11 shared with the Antelope-Pardee 500 kV Project include the following:

- Three 60-foot tie-downs with 2B-1590 kcmil conductors per phase each
- Three 220 kV capacitor voltage transformers
- Two 220 kV 3000A 40 kA circuit breakers and foundations
- Four 220 kV group operated, horizontally mounted disconnect switches with support structures and foundations, one
  equipped with grounding attachments
- Three 200-foot segments of 2B-1590 kcmil conductors; total: 600 feet

As discussed in the EIR for Segments 2 and 3 (page B-17), these upgrades to facilities at Antelope Substation are being installed as part of the Antelope Substation Transmission Project (Segment 1) and will be utilized as part of Segment 2. Therefore, these upgrades were included under NTP #2 for Segment 1.

The Project will also utilize facilities at the Vincent Substation, an existing 500/220 kV substation owned, operated, and maintained by SCE. The proposed Project will require that the existing 220 kV Line Position No. 3 at Vincent Substation be equipped to terminate the Segment 2 line. The following equipment will be installed at the 220 kV Line Position No. 3 as part of this NTP request:

- One 60-foot-high by 45-foot-wide line dead-end structure and foundations
- Three 60-foot tie-downs with 2B-1590 kcmil conductors per phase each
- Three 220 kV capacitor voltage transformers
- One 220 kV 3000A 40 kA circuit breakers and foundations
- Two 220 kV group operated, horizontally mounted disconnect switches with support structures and foundations; one
  equipped with grounding attachments
- Three 100-foot segments of 2B-1590 kcmil conductors; total: 600 feet

The above modifications to Vincent Substation will not require any additional lighting. To make space for these upgrades, fifteen existing 220 kV bus supports and their foundations will be removed.

The scope of work at Vincent Substation will also include the removal of a wave trap and line tuner, and the installation of protective relays inside the existing Control Room.

## Construction Methodology

The proposed Project consists of three major activities:

 Demolition and relocation of the existing 4.4 mile 66 kV double circuit sub-transmission line between Project Mile S2-0.0 to Project Mile S2-4.4. Relocating the existing 66 kV sub-transmission line will allow for the construction of the 500 kV project in its current alignment. The 66 kV sub-transmission line will be relocated 10 feet east of the westerly edge of the new 100 foot project right-of-way.

- Construction of a new 220 kV/500 kV transmission line between Antelope Substation in Lancaster (Project Mile S2-0.0) and the Vincent Substation in the northern portion of unincorporated County of Los Angeles property (Project Mile S2-21.0).
- 3. Upgrade to the Vincent Substation consisting of:
  - Installation of new equipment inside the existing 220 kV switchyard
  - Installation of protective relays inside the existing Control Room

### 66 kV SUB-TRANSMISSION LINE DEMOLITION AND RELOCATION

Approximately 4.4 miles of the existing 66 kV sub-transmission line will be demolished and relocated. System components that will be demolished include 954-kcmil stranded aluminum conductor (SAC), approximately 96 double circuit wood poles and two tubular steel poles (TSP). The new installation will consist of approximately 96 new wood poles and installation of two TSPs on anchor-bolted foundations. Approximately seven new wood poles at angle locations will be guyed and anchored. The installation of wood poles will be temporary. All new wood poles will be replaced with anchor-bolted TSPs once the TSP order is received. The new conductor will be 954-kcmil stranded aluminum conductor. This work will be completed using conventional construction equipment and removal/installation techniques. No helicopter work will be performed during demolition activities. Helicopters may be used during wire stringing activities.

### Road Preparation for 66 kV Sub-transmission Line Demolition and Relocation

Access to the existing sub-transmission line will be from existing access roads. These roads may require light grading to make them passable. No construction of new spur or access roads will be required for demolition. Existing diversion berms may be temporarily removed to allow access for equipment and materials.

Access to the section of new 66 kV line along the westerly boundary of the right-of-way will be from a new access road constructed 20 feet east of the new 66 kV line. Construction of this road will require light grading.

Wire Installation and Removal for 66 kV Sub-transmission Line Demolition and Relocation
Disturbance during conductor installation and removal will consist of wire stringing sites and guard pole structures as depicted on the disturbance maps. Guard structure and wire stringing sites are 100 feet by 50 feet unless noted otherwise.

The wire installation crew may use helicopters for pulling sockline cables and monitoring the wire pulling portion of the wire stringing operation. The wire stringing operation consists of the following activities:

- Prepare wire pulling and wire stringing sites
- Install insulator assembly on the poles
- Hang stringing sheaves
- Haul and set up wire pulling and tensioning equipment. Movement of wire stringing equipment in many cases will
  require transporting heavy equipment on lowboy trailers from site to site
- Install wire catch-off snubs
- String in conductor wire
- Splice conductor wire
- Remove string sheaves and attach conductor wire to insulators (clipping)
- Dead-end wires (Install compression dead-end assemblies)
- Install jumper wires on dead-end structures

The wire stringing setup locations will include buried wire snubbing devices, tensioning equipment, wire reel trailers and wire sagging winch tractors. Buried wire snubbing devices are only required when the stringing setup is between two tangent structures. The equipment required at wire stringing and pulling locations will be similar to that used for 500 kV wire stringing described below.

Removal of the conductor will be initiated by either placing the conductor in stringing sheaves or lowering it to the ground. The old conductor will be wound onto "breakaway" reels as it is removed. In areas where the old conductor is placed into sheaves, a 3/8-inch steel pulling cable, or rope pulling line, will replace the old conductor as it is removed allowing for complete control of the conductor tension during its removal. The steel cable, or rope line, will be removed under controlled conditions to protect existing facilities and the public as well as to minimize ground and habitat disturbance. All wire-pulling equipment will be removed upon completion of conductor removal activities.

The reels of old conductor will be transported by truck to a material and equipment yard to be prepared for recycling. All waste materials not recycled will be characterized as outlined in the Waste Characterization and Management Plan approved by the CPUC on April 29, 2008. Materials will be disposed of at an approved facility using appropriate transportation and documentation protocol.

Double Circuit Pole Installation and Removal for 66 kV Sub-transmission Line Demolition and Relocation

A work area of approximately 100 feet by 100 feet will be required for structure demolition and installation so that the rough terrain crane can set-up at the existing or new pole location. The rough terrain crane will be located transversely (cross-direction) to the greatest extent possible from the pole location. The removal poles components will be placed on blocking and will be cut-up at the site or disassembled and the poles hauled off. The scrap pole components will be placed in containers and transported to an approved receiving facility in accordance with the Hazardous Substance Control and Emergency Response Plan and Water Characterization and Management Plan.

Upon removal of the wood poles, the pole holes will be backfilled with clean fill, compacted and the area recontoured to match the existing land surface as much as practicable.

### NEW 220 kV/500 kV TRANSMISSION LINE CONSTRUCTION

Installation of the new 500 kV transmission line will involve five phases, some of which will occur concurrently. These include:

- Road preparation
- Site preparation
- 3. Foundation installation
- 4. Structure installation (includes assembly and erection)
- 5. Wire stringing (includes conductor splicing)

### Road Preparation for New 220 kV/500 kV Transmission Line Construction

The first step for construction of the new 500 kV transmission line is access road preparation. For Sections 1, 2, 4 and 5, existing access roads will be utilized to the greatest extent possible. New spur and access roads required in these sections are delineated on the disturbance area maps. For Section 3, significant new access and spur road construction will be required. These are also delineated on the disturbance area maps. Existing access roads that are too narrow to accommodate equipment or require maintenance for constructability or safety reasons will be modified. This may involve something as simple as smoothing ruts to widening the existing road to 15 feet to accommodate large construction equipment. The Access Road and Disturbance Maps will note that overland travel can be used in limited instances where there are no existing roads. This involves allowing vehicles access to sites by driving over existing vegetation. Temporary roads not required for ongoing maintenance of the new 500 kV transmission line will be restored and revegetated in accordance with Mitigation Measures B-27b, APM BIO 1 and APM BIO 7 in the Habitat Restoration and Revegetation Plan.

## Site Preparation for New 220 kV/500 kV Transmission Line Construction

A work area of approximately 200 feet by 200 feet will be prepared at each construction tower site to provide a fairly level and safe working platform. Where necessary, tower sites, or an associated crane pad, would be graded or cleared of vegetation to provide a construction pad that is free of vegetation or any obstacles hindering tower construction. Preparation of the Tower Construction Sites will provide a stable area of sufficient size to assemble tower components and to properly set up the erection crane so that the crane boom can be located transverse to the tower to the greatest distance possible.

## Foundation Installation for New 220 kV/500 kV Transmission Line Construction

Once a Tower Construction Site has been prepared, the foundations will be installed using standard "poured-in-place" augured excavation techniques. Typically, installation of the foundation requires: final surveying to establish elevations and orientation, site grading, fabrication and installation of rebar cages, installation of stub angles/anchor bolt cages, concrete pouring, and site restoration and recontouring.

For steel lattice towers, each foundation is augured to the required depth and a full length reinforcing steel (rebar) cage is placed inside the excavated hole. The tower leg stub angle is set to its required dimensions and then held in place with a template while concrete is being poured. The final step is forming and finishing the reveal (exposed) portion of the foundation. On average, a typical foundation will have a reveal of approximately two feet but may vary from six inches to three feet depending on terrain.

Steel lattice towers will be constructed on four concrete foundations. The dimensions for each foundation will be dependent upon line angle, topography, tower height, span length, and soil properties. Typically, the foundations will range from four to six feet in diameter and have a depth of 15 to 30 feet.

Foundations for tubular steel poles (TSP) will be of a single shaft drilled pier concrete foundation design. Single shaft foundations for TSPs used in this section of line may range from eight to ten feet in diameter and from 35 to 60 feet in depth. A drilled shaft of this size generates more spoils than can be effectively used to recontour the site upon completion of the foundation. Excess spoils will be hauled to an approved disposal site to be recycled as clean fill on other projects in accordance with the stipulations of both the Vegetation Removal and Excavation Plan and Disposal and Waste Characterization Plan approved for the Project.

## Structure Installation for New 220 kV/500 kV Transmission Line Construction

When the concrete have been cured and are deemed ready for structure installation, several truck tractor/trailer units, flatbed trucks and on-site loaders/forklifts will haul, unload and stack bundles of steel at each tower location and pole components at each pole location. An assembly crew will assemble the tower/pole components ahead of a tower/pole erection crew that will erect the assembled structures.

## Tower/Pole Assembly for New 220 kV/500 kV Transmission Line Construction

The tower/pole components will be assembled on-site. Assembly crews will use various pieces of heavy equipment to complete their portion of the work, which may include setting tower legs. Assembled components will be placed on wood blocking for the erection crew to facilitate the lifting capacity of the erection cranes.

#### Tower/Pole Erection for New 220 kV/500 kV Transmission Line Construction

The towers/poles will be erected in stages using conventional and rough terrain hydraulic cranes with the lifting capacity for the components being erected, such as preassembled tower panels, boxed sections, and bridges. During the erection operations, the erection crew may opt to install insulators and string sheaves (generally insulators and stringing sheaves are installed by the wire stringing crew). Upon completion of tower/pole erection, the construction pad will be left in place for use by the wire stringing crew for the purpose of setting up wire stringing and high-reach man lift equipment.

### Wire Stringing for New 220 kV/500 kV Transmission Line Construction

Wire pulling sites will be established at predetermined disturbance locations as shown on the Access Road and Disturbance Maps. The wire installation crew will make extensive use of helicopters for movement of crews, movement of tools and equipment, installing insulators, hanging stringing sheaves, pulling sockline cables and monitoring the wire pulling portion of the wire stringing operation. The wire stringing operation consists of the following activities:

- Prepare wire pulling and wire stringing sites
- Install insulator assembly on the towers/poles
- Hang stringing sheaves
- Haul and set up wire pulling and tensioning equipment. Movement of wire stringing equipment in many cases will
  require transporting heavy equipment on lowboy trailers from site to site
- Install wire catch-off snubs
- String in overhead ground wire (OHGW) and fiber optic cable (OPGW)
- String conductor wire
- Splice conductor wire
- Sag conductors, OHGW and OPGW
- Remove string sheaves and attach conductor wire to insulators (clipping)
- Dead-end wires (Install compression dead-end assemblies)
- Install jumper wires on dead-end towers

The area required for wire stringing and pulling sites will be the entire width of the ROW and 300 feet in length. A three to one ratio from the break-over tower (first tower out of the wire puller or wire tensioning machines) to the puller or tensioner is mandatory. It is the goal to have the wire pulling sites spaced a distance of two full reel lengths (approximately 3 miles) apart. In rough terrain with limited conventional road access, the degree of angle of dead-end towers limits the choices for wire stringing and pulling locations.

The wire stringing setup locations will include buried wire snubbing devices, tensioning equipment, wire reel trailers and wire sagging winch tractors. Buried wire snubbing devices are only required when the stringing setup is between two tangent towers. When stringing from a dead-end tower, the wire is typically snubbed to the tower dead-end plates.

The wire pulling sites are located in areas according to tower type and the terrain length of the prescribed pull. Conductor pulling machines appropriately sized for the conductor being strung are trailer mounted single drum type, with the drum holding approximately 21,000 feet of %-inch steel pulling cable (sockline).

### Wire Splicing for New 220 kV/500 kV Transmission Line Construction

During stringing operations, the length of conductor wire pulled will be greater than what is provided on a single reel requiring that two or more reels are "temporarily spliced" using flexible or double sock type grips joined with a steel pulling swivel. These temporary splices will be removed and a compression slice installed in their place. The splicing operation will occur mid-span between towers.

### **GUARD STRUCTURES**

The purpose of a guard structure is to protect the public from pulling cables and wires at road crossings and to protect existing power line crossings. Guard structures will be established prior to wire stringing or splicing. A temporary guard structure consisting of upright poles and pole cross-arms will be set at the edge of main access roads, highways and at existing power lines being crossed to allow public and construction traffic to move freely along the roads during construction of the transmission line.

#### VINCENT SUBSTATION UPGRADES

The work inside the switchyard will require both above grade and below grade construction. Below grade construction will include installation of conduit and foundations. Above grade construction will include installation of steel structures, electrical equipment, and associated hardware.

Installation of protective relays inside the control room will not require any construction equipment or ground disturbing activities. The extent of the relay work will consist of installation of cables, programming, and testing.

Substation construction will occur within the existing substation fenced area in accordance with accepted construction industry standards. Work will generally be scheduled in daylight hours (6:30 a.m. to 5:00 p.m.), Monday through Friday. In the event that construction is required outside of the specified hours in order to meet schedule requirements, a variance will be obtained from the Los Angeles County. All materials associated with substation construction will be delivered by truck to the site. As applicable, truck traffic will use major streets and will be scheduled for off-peak traffic hours. All construction debris associated with the construction effort will be placed in appropriate onsite containers and periodically disposed of according to all applicable regulations. Materials will be staged along the east perimeter fence.

It is estimated that approximately 35 cubic yards of soil will be removed during these construction activities (SCE, 2006). Soil will be sampled and tested for contamination prior to removal from the site and properly disposed of, as required by law. The improvements at Vincent Substation will be limited to the installation of equipment and structures on previously disturbed land within existing substation boundaries. No additional grading or earth movement will occur at Vincent Substation in association with the Project.

### HELICOPTER USAGE AND STORAGE

Helicopters will be used during construction of the new 500 kV line to support all construction activities. Uses may include:

- Transporting personnel and tools to tower sites and onto towers
- Transporting personnel performing environmental and cultural resource monitoring, construction quality control and site visits
- Installing tower insulator assemblies
- Installing wire stringing sheaves and pulling cables

Helicopters will be stored and operated out of the Avenue I Yard, the 10-Acre Yard, and possibly another yard approved by the CPUC. Helicopters supporting Segment 2 construction activities will require landing areas at selected locations along the route. The anticipated helicopter landing/fueling areas will be at the wire stringing sites located along the ROW. These areas will be finalized during construction by personnel qualified to assess impacts resulting from their use.

The fueling sites for medium and light helicopters will also include the Avenue I Yard, 10-Acre Yard, Rodeo Yard, and Rogers Ranch Yard if approved. Hazardous Substance Spill Control Plan, Waste Characterization Plan, and, because no fuel will be stored on site currently, a statement of exemption from a Spill Control and Prevention Plan have been prepared that include conditions pertaining to these yards. All personnel working on the site will be required to be trained in accordance with the Worker Environmental Awareness Program created for the Project to ensure a clear understanding of how to prevent and respond to spills, fires, or other emergencies.

- e CULTURAL RESOURCES. A total of 22 cultural resource sites have been identified in the project area of Segment 2. Sixteen (16) of these sites are located in areas that may be impacted by construction activities. Table 1 of the Cultural Resources Management Plan specifically states how the sites will be avoided. Two sites (CA-LAN-3655 and CA-LAN-3734) will require testing to evaluate their eligibility for the California Register of Historical Resources. SCE shall provide documentation on the testing results to the CPUC prior to work in these areas.
- **BIOLOGICAL RESOURCES.** Biological surveys were conducted in 2007 and April 7-10, 2008, along the 500 kV/220 kV Line as a 200+ foot wide belt transect corridor survey (100 feet on each side of the outer disturbance limits of the Line). A survey with the same 200 foot buffer was also conducted on July 17, 2008 for new access roads to some of the towers between Elizabeth Lake Road and State Route 14 (Towers 40 90). Other areas were also surveyed that are outside of this right-of-way as identified on the disturbance maps. LSA biologists conducted protocol level California red-legged frog and nesting riparian bird surveys at the Amargosa Creek corridor crossing from March through July 2008. Swainson's hawk surveys were also conducted in 2007 by LSA and it was determined that there was no suitable Swainson's hawk nesting habitat in Segment 2.

One special-status plant species was observed either within or just outside the disturbance areas. Numerous populations of Peirson's morning-glory (*Calystegia peirsonii*) were found. In some instances the populations were patchy in their distribution, and in other instances, there were large populations with thousands of individual plants. Populations of Peirson's morning-glory were found from Towers 8 to 84 and frequently between Tower 22 and Tower 84.

One special-status reptile species and one potential special-status mammal species were identified: the coast horned lizard (*Anota* coronatum) and the San Diego desert woodrat (*Neotoma lepida intermedia*). In 2007, one inactive and one potential burrowing owl burrow were detected between the Antelope Substation and the California Aqueduct (in the vicinity of Towers 3 and 16). These areas will be avoided and/or resurveyed as needed prior to construction. One American badger burrow was detected. The badger burrow was found between Towers 89 and 91. Per Mitigation Measure B-26, and in consultation with CDFG, badgers will be passively relocated from the project area during the non-breeding season.

VARIANCE REQUEST #12: On September 17, 2008, SCE submitted Variance Request #12 (revised) to modify the requirements of Mitigation Measure V-1b of the Final EIR/EIS. Mitigation Measure V-1b states:

"In locations designated by the CPUC, SCE shall construct the new transmission line using existing access roads and spur roads. SCE shall consult with the visual specialist designated by the CPUC to ensure that the objectives of this measure are achieved. SCE and its Contractors shall submit plans and construction drawings for access roads and spur roads, demonstrating compliance with this measure, to the CPUC for review and approval at least 60 days prior to the start of construction".

Under Variance Request #12, SCE requests to classify some of the access and spur roads as permanent to meet standards for tower access and maintenance. SCE states that this is required

because permanent access and spur roads will be required for regular access to several areas where there are no other roads or the existing roads are inadequate. Also, SCE states that this is necessary because the new 500 kV line will form the backbone of the SCE transmission system, and regular access for maintenance and emergencies will be necessary beyond the duration of construction. Under this request, 4.68 miles of access and spur roads would be classified as permanent. This NTP does not grant any SCE requests specified under Variance Request #12.

## The conditions noted below shall be met by SCE and its contractors:

- Construction of new access and spur roads shall be done in accordance with approved project mitigation measures.
- Several sensitive resources were identified during the preconstruction surveys and noted in LSA's biological reports dated July 10 and August 8, 2008. Prior to work in the vicinity of those areas, CDFG must be consulted on how the resource protection is to be handled. This information shall be submitted to the CPUC prior to work in the area.
- As identified in the Biology Mitigation Measures and Applicant Proposed Measures (APMs) in the EIR/EIS, SCE would assign Biological Monitors to the Project. They would be responsible for ensuring that impacts to special-status species, native vegetation, wildlife habitat, or unique resources would be minimized to the fullest extent possible. The Biological Monitor shall be on-site to monitor all work and will conduct sweeps of the approved areas, especially areas with high burrow concentrations which will be impacted. Monitors would flag the boundaries of areas where activities need to be restricted in order to protect wildlife including special-status species. These restricted areas would be monitored to ensure their protection during construction. This will include protecting species covered under the Migratory Bird Treaty Act (MBTA) and CDFG codes regarding the protection of nests and eggs. If breeding birds with active nests are found, a biological monitor shall establish a 300-foot buffer around the nest and no activities will be allowed within the buffer until the young have fledged from the nest or the nest fails. The 300-foot buffer may be adjusted to reflect existing conditions including ambient noise and disturbance with the approval of the CDFG and USFWS (as well as CPUC notification). The biological monitor shall conduct regular monitoring of the nest to determine success/failure and to ensure that project activities are not conducted within the buffer until the nesting cycle is complete or the nest fails.
- Biological survey sweeps shall be conducted and results submitted to the CPUC for review and
  approval prior to equipment and vehicles mobilizing into an area. After complete surveys have been
  submitted and approved by the CPUC, site occupation can occur; however, if occupation does not
  occur within seven calendar days of survey submittals, biological clearance sweeps shall be reconducted prior to site occupation, including nesting bird surveys during the breeding season.
- Per Mitigation Measure B-3b, CDFG and CPUC shall field verify temporary and permanent impacts
  to desert wash habitat at Towers 9 and 10. SCE shall coordinate with CDFG and CPUC to acquire
  and ensure permanent protection of mitigation lands.
- Per Mitigation Measure B-4b, CDFG and CPUC shall field verify temporary and permanent impacts to Joshua tree woodland and Juniper woodland habitat. SCE shall coordinate with CDFG and CPUC to acquire and ensure permanent protection of mitigation lands.

- Per Mitigation Measure B-13d, CDFG and CPUC shall field verify temporary and permanent impacts to montane scrub and Juniper woodland habitat. SCE shall coordinate with CDFG and CPUC to acquire and ensure permanent protection of mitigation lands.
- SCE shall submit documentation that California red-legged frog survey results have been submitted to CDFG and USFWS.
- If special-status plant or animal species are observed within the project area, the CPUC EM and CDFG shall be notified immediately.
- SCE shall contact CDFG prior to any action that would impact a woodrat midden and provide documentation to the CPUC that consultation has occurred.
- Per Mitigation Measure A-1f, prior to its use on the project, SCE shall provide to the CPUC the
  following information for all diesel equipment used on the project: Tier rating, CARB registration,
  where applicable Smoke Check Test results, and in the case of Tier 1 engines, where the contractor
  plans to install VEDEC retrofit exhaust system, verification of installation shall be provided to the
  CPUC.
- Per Mitigation Measure A-1i, SCE will submit a monthly helicopter use log including expected hours of operation, type of helicopter, and purpose of use to the CPUC for review and approval.
- The Cultural Resources Management Plan shall be followed by SCE and its contractors.
- Based on the topography (depositional environment) and the number of previously recorded sites in the area, monitoring of ground disturbing activities by a qualified archaeologist shall be required between Structure 35 and Structure 39 in the Leona Valley area.
- Two sites (CA-LAN-3655 and CA-LAN-3734) will require testing to evaluate their eligibility for the California Register of Historical Resources. SCE shall provide documentation on the testing results to the CPUC prior to work in these areas.
- Per Mitigation Measure G-1, SCE shall submit survey results for slope stability issues for access road
  areas. No work can be conducted on access roads in hill/sloping areas until the criteria for this
  measure are completed.
- Per Mitigation Measure G-8, a certified paleontological monitor will monitor compliance at construction areas where excavation is being conducted in geologic units of moderate to high sensitivity. Areas of low sensitivity will be spot-checked periodically. Paleontological monitoring reports will be submitted to the CPUC for review on a monthly basis.
- Per Mitigation Measure H-4, if it is determined that known groundwater resources would be unavoidable during construction, SCE will submit a Groundwater Remediation Plan to the CPUC and RWQCB for review and approval prior to the onset of any construction activities. If unknown groundwater resources are encountered, SCE will stop the disruptive excavation activity and submit a site-specific remediation plan to the CPUC and RWQCB for review and approval. Water may not be discharged on site, but may be held in a Baker Tank until the Plan is approved.
- Based on a site visit with CDFG and the findings of the impacts assessment, two road crossings on tributaries to Amargosa Creek between Towers 46-47 will require a notification of Streambed

Alteration. The establishment of these crossings will require pulling back the banks of both sides to minimize the gradient down to the channel, and the placement of clean rock on the channel bottom to create an Arizona crossing that will facilitate travel by trucks and large equipment. Documentation of consultation with RWQCB regarding the road crossings on tributaries to Amargosa Creek between Towers 46-47 and two other crossings not requiring a Notification of Streambed Alteration shall be provided to the CPUC prior to use of those locations.

- Table A: Drainage Assessment for Access Roads (Existing, Overland, New Permanent, Temporary, and Improved) from the SCE Segment 2 July 2008 submittal for Mitigation Measure Bio-3 (Avoid Impacts to Streambed and Banks) shall be followed. If project plans and/or access road plans change, or conditions at the stream crossings/drainages change, the CPUC and CDFG shall be consulted regarding those changes and avoidance of potential impacts.
- A crossing permit from the Department of Water Resources will be submitted for work done over the California Aqueduct, and will be provided to the CPUC prior to the start of construction involving the Aqueduct.
- Per Mitigation Measure V-15, SCE shall submit all permits and approvals from Los Angeles County and affected local agencies, such as the City of Lancaster and City of Palmdale.
- All project mitigation measures, compliance plans, and permit conditions shall be implemented during construction activities and use of the proposed yard spaces. Some measures are ongoing/time-sensitive requirements and shall be implemented prior to and during construction where applicable.
- Copies of all relevant permits, compliance plans, and this Notice to Proceed shall be available on site for the duration of construction activities.
- Prior to the commencement of construction activities, all crew personnel including haul truck and concrete truck drivers shall be appropriately WEAP trained on environmental issues including protocols for air quality, hazardous materials, biological resources, known and unanticipated cultural materials, as well as SWPPP BMPs. A log shall be maintained on-site with the names of all crew personnel trained.
- All work boundaries shall be flagged prior to occupation. In addition, all approved access roads, spur
  roads and overland travel routes to be used shall be flagged prior to construction.
- All sensitive resources buffers shall be flagged for avoidance by a qualified biologist and approved by the CPUC EM prior to construction.
- All culturally sensitive areas shall be flagged for avoidance by a qualified archaeologist and approved by the CPUC EM prior to construction.
- 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 to construction technique or mitigation implementation to a lesser level are required, a Variance Request shall be submitted for CPUC review and approval.
- All fueling for equipment and helicopters shall be conducted using saddle trucks at least 100 feet from aquatic resource areas. No fuel may be stored on Project sites.

- Prior to use of any proposed helicopter area, SCE shall submit maps of the area as well as verification that biological and cultural surveys have been conducted for review and approval by the CPUC.
- If construction debris or spills enter into environmentally sensitive areas, the jurisdictional agencies and CPUC EM shall be notified immediately.

Sincerely,

John Beccio

CPUC Environmental Project Manager

cc: V. Strong, Aspen