

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

September 13, 2010

Susan J. Nelson, AIA  
Project Manager  
Southern California Edison  
2244 Walnut Grove Ave.  
Rosemead, CA 91770

RE: Tehachapi Renewable Transmission Project (Segments 4-11), Notice to Proceed (NTP # 16)

Dear Ms. Nelson,

On August 26, 2010, Southern Californian Edison (SCE) submitted a Notice to Proceed Request (NTPR) seeking authorization from the California Public Utilities Commission (CPUC) to construct the Segment 4 transmission line (T/L) of TRTP, which consists of the construction of approximately 16 miles of new 500 kV transmission line between SCE's Whirlwind Substation and Antelope Substation in Kern and northern Los Angeles counties, California. A portion of the Segment 4 T/L also traverses the City of Lancaster. Additional information, including a biological survey report and maps, was submitted September 1st.

The SCE Tehachapi Renewable 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 Decision 09-12-044, (Application #07-06-031), SCH #2007081156 on December 17, 2009. **NTP # 16 is granted by CPUC for the proposed activities based on the following factors:**

- SCE submitted the following information:

SCE submitted a Notice to Proceed Request (NTPR) seeking authorization from the CPUC to construct the Segment 4 transmission line (T/L) of TRTP, which consists of the construction of approximately 16 miles of new 500 kV transmission line between SCE's Whirlwind Substation and Antelope Substation in Kern and northern Los Angeles Counties, California. Segment 4 T/L also traverses the City of Lancaster and unincorporated areas of Los Angeles County.

New construction of the Segment 4 T/L includes a 16-mile section on new right-of-way (ROW) of what will ultimately become the Vincent-Whirlwind 500 kV T/L from the new Whirlwind Substation to existing Tower M15-T4 near the Antelope Substation. New construction also includes the cut-in of existing and parallel Midway-Vincent No. 3 500 kV T/L into the Whirlwind and Antelope Substations. The Antelope-Windhub 220 kV T/L will also be converted to 500 kV by reconfiguring the crossing with the Midway-Vincent No. 3 500 kV T/L and extending the line from the 200 kV Antelope Substation to the 500 kV Antelope Substation.

**Site Location and Conditions**

The construction activities for Segment 4 T/L will occur within Kern and northern Los Angeles Counties. The Segment spans approximately 16 miles from the Whirlwind Substation in Kern County to the Antelope Substation in Lancaster. New construction will include a 16-mile section of a 500 kV transmission line from the new Whirlwind Substation to existing Tower M15-T4 near the Antelope Substation. This line will ultimately become the Vincent-Whirlwind 500 kV line. Lattice steel tower (LST) structures having a horizontal phase configuration will be used throughout this section. The line will be built on new ROW obtained by SCE. Two existing TSP structures near the Antelope 220 kV Substation will be removed as part of the work.

Approximately 10 miles of the line route parallels the existing Midway-Vincent No. 3 500 kV T/L. The new line will cross over the Sylmar-Celilo 1000 kV T/L, the Barren Ridge-Rinaldi 220 kV T/L, the Antelope-Pardee 220 kV T/L, and the Antelope-Magunden No. 1 and No. 2 220 kV T/Ls.

New construction also includes the cut-in of the existing Midway-Vincent No. 3 500 kV T/L into the Whirlwind Substation and the Antelope 500 kV Substation. The cut-in requires the installation of six LST structures at Whirlwind, two LST structures, and one TSP structure at Antelope. Four of the LSTs will be interset in the existing Midway-Vincent No. 3 T/L. One of the new towers outside Whirlwind substation will be a transposition structure. Two existing LST structures will be removed as part of the cut-in at Whirlwind.

The Antelope-Windhub 220 kV T/L will also be converted to 500 kV by reconfiguring the crossing with the Midway-Vincent No. 3 500 kV T/L and extending the line from the Antelope 220 kV Substation to the Antelope 500 kV Substation. This requires the installation of two LST structures at the Midway-Vincent No. 3 line crossing and two LST structures outside the Antelope 500 kV Substation. The two LSTs at the Midway-Vincent No. 3 crossing will be interset in the existing transmission line. Two existing TSP structures near the Antelope 220 kV Substation will be removed as part of the work.

Numerous 220 kV and 500 kV line outages will be required to complete the scope of work.

Segment 4 construction also includes access roads and underground fiber optic work.

### **Project Components**

The project components, including the site facilities and operations, and site work associated with Segment 4 T/L are as follows:

- Construction of Vincent-Whirlwind 500 kV T/L, a 16-mile line from Whirlwind Substation to existing Tower 2 near the Antelope Substation.
- Cut-in of the existing Midway-Vincent No. 3 500 kV T/L into the Whirlwind Substation and the Antelope 500 kV Substation.
- Converting the Antelope-Windhub 220 kV T/L to 500 kV T/L.

Construction equipment operating hours for the installation and upgrade of the Segment 4 T/L activities are planned to be from approximately 7:00 a.m. to 7:00 p.m. SCE has established a TRTP toll-free information line (877-795-8787) and website ([www.sce.com/tehachapi](http://www.sce.com/tehachapi)). The information line is the designated public notification contact for the TRTP.

### ***Project Elements/Construction Activities***

Project elements that will possibly be present or active throughout the construction of the transmission line include the following: new and/or improved access roads; wire setup sites (i.e., pull sites, wire splice sites, tensioning sites); transmission foundations, structures and wires; temporary guard poles; construction equipment and vehicles; helicopters; and permit requirements (e.g., BMPs).

Construction activities that will possibly be present or active throughout the construction of the transmission line include the following: grading for new and improved access roads and site preparation; removal of existing foundations, structures, and wires; installation of foundations, tower/pole structures, and wires; operation of construction equipment and vehicles; operation of helicopters; installation, maintenance and removal of guard poles; installation, maintenance and removal of permit requirements; and material salvage and disposal.

### ***Site Work***

Site work for the removal and installation of the transmission line will include grading for access roads and site preparation; removal of existing transmission structures/foundations, wires and hardware assemblies; and installation of new transmission structures/foundations, wires and hardware assemblies.

## **Access Roads**

In most areas, construction of the new 500 kV structures will involve clearing and grading of new, temporary and permanent access roads. Improvements to existing access roads may also include grading, blading and vegetation clearing or removal. New roads and planned improvements have been designed to be 14-foot-wide roadway plus additional roadway width to accommodate the necessary vehicles and equipment turning radii during construction. Additionally, some roads may be capped to protect archaeological resources. Berms or swales approximately 2 to 3 feet wide will be created on each side of the roadway where necessary and in compliance with applicable mitigation measures. Roadway width will also be required to accommodate vehicle turning, vehicle turnouts, sidecast, and backslope. In some locations, access to construction areas will take place in the form of temporary overland travel. In these areas, overland access will be made without the creation of new temporary or permanent access roads.

## **Site Preparation**

Construction activities associated with the removal and installation of the transmission line will require grading and other site preparation activities. Some of these activities would be temporary (e.g. land disturbance for construction staging areas and crane pads associated with tower assembly and erection). Other construction activities would be permanent, where the land would remain in use after construction (e.g. tower footings and access roads). Additionally, some sites may be capped to protect archaeological resources.

Typically, the staging area for construction activities would require an area of approximately 200 by 200 feet. In locations of relatively level terrain, only vegetation removal would typically be required to prepare the site for construction. In more rugged terrain or sloping site conditions, both vegetation clearing or removal and grading will be necessary to prepare the staging area for construction. To support the equipment and vehicle traffic, the graded area will be compacted. Site preparation is necessary to accommodate new tower sites and perform crane operation during the assembly of tower structures, as well as to remove existing structures. Site preparation will be conducted in compliance with all permit requirements and installation of Best Management Practices.

## **Underground Major Activities**

Approximately 644 linear feet of Fiber Optic Cable (FOC) will be installed in a new underground utility duct bank at one location along the route. This duct bank will connect FOC and optical ground wire (OPGW) between different transmission line towers. This will enable the construction of the projects' multiple configurations of transmission lines without affecting the communications path. New underground utility duct bank installation is typically comprised of an approximate 1.5 foot wide by 3-foot-deep trench with two five inch PVC conduits installed. The trench will then be filled with a mixture of concrete and concrete slurry (bottom portion) and native soil (top portion) to existing grade.

## **Below Grade Major Activities**

It is anticipated that below grade activities such as excavation, drilling and foundation construction will be necessary for the construction of the new transmission lines. Construction of the new LSTs and TSPs will require construction of concrete foundations. Typically, LSTs will require four excavated holes of 3 to 6 feet in diameter and 15 to 40 feet deep and TSPs typically will require one hole up to 10 feet in diameter and 60 feet deep. For removal sites, the existing footings would typically be excavated and removed to a depth of 2 feet below grade. Any remaining footing foundation would remain in place and the excavation filled and compacted to match the surrounding grade.

## **Above Grade Major Activities**

Segment 4 T/L construction consists of the construction of a new 500 kV transmission line. Planned construction activities at these areas are summarized below.

- **Construction of 55 new Vincent-Whirlwind 500 kV T/L structures.** This activity will include 55 new lattice steel towers (LSTs) and removal of 2 structures near the Antelope 220 kV Substation.
- **Construction of eight new 500 kV structures and removal of two existing structures for cut-in of the existing Midway-Vincent No. 3 500 kV T/L.** This activity will include the construction of six LSTs at the Whirlwind Substation, the construction of two LSTs and one TSP at the Antelope Substation and the removal of two existing LSTs at the Whirlwind Substation.
- **Construct four new Antelope-Windhub 500 kV structures.** This activity will include the construction of four new LSTs and removal of 2 structures near the Antelope 220 kV Substation.

The removal and construction activities for these transmission structures will require a work area measuring approximately 200 feet by 200 feet. These areas will be located within the existing right-of-way corridor or approved work areas. An area within the approved work area will be used for a crane pad. A crane will be used to install each structure. Wire setup sites will be used to support wire stringing, including pulling, splicing, tensioning and other disturbances along the route. Each pull/tension site, wire splice site, and wire setup will occupy a work area of approximately 500 feet by ROW width.

#### **Other Activities**

Helicopters will be used during the removal and installation of wires. Existing identified construction disturbance areas will be used for helicopter landing zones, and will be included in the contractor's Congested Area Flight Plan to be approved by the Federal Aviation Administration. Any additional surveys or analysis required if new landing zones are identified will be conducted and the results provided to the CPUC.

- **Biological Resources:** The USFWS Biological Opinion (BO) was issued on July 31, 2010. The CDFG 2081 Incidental Take Permit has not been issued. The 2081 is required for Segment 4 for Swainson's hawk, desert tortoise, and Mohave ground squirrel.

SCE submitted a report titled *SCE TRTP Component, Segment 4 Transmission Line Biological Review* prepared by ICF International dated August 2010. The report summarizes results of prior surveys conducted for the TRTP Study Corridor, and discusses the literature review and focused field surveys conducted for Segment 4 T/L. The Biological Survey Area (BSA) for Segment 4 T/L was defined as the entire ROW plus a 500-foot buffer. Focused surveys were conducted in 2009 for rare plants, burrowing owl (*Athene cunicularia*), desert tortoise (*Gopherus agassizii*), Swainson's hawk (*Buteo swainsoni*), and Mohave ground squirrel (*Spermophilus mohavensis*) along Segment 4 and adjacent to the Segment 9 Whirlwind and Antelope Substations. Focused surveys along Segment 4 in 2010 were conducted for rare plants, burrowing owl, desert tortoise, and Swainson's hawk.

Segment 4 T/L is composed mostly of California annual grassland and agricultural lands. The remaining vegetation communities include disturbed/developed, California annual grassland – wildflower field, agriculture – wildflower field, Mohave creosote bush scrub, ruderal grassland, rabbitbrush scrub, Joshua tree woodland, desert saltbrush scrub, Mohave desert wash scrub, bunch grassland, and Mojavean juniper woodland and scrub. Segment 4 T/L is not located within federally designated Critical Habitat for any species and does not overlap state-protected or regulated habitats. One California Native Plant Society (CNPS) List 4.2 perennial herbaceous species, Peirson's morning-glory (*Calystegia peirsonii*), was recorded along Segment 4 T/L during the 2010 focused surveys. Two populations of Peirson's morning glory had previously been mapped along the Project component (AMEC 2009c).

Based on the literature search and previous surveys of the project area and surrounding areas, there is suitable habitat for special-status species. These special-status species include: California androsace

(*Androsace elongate* ssp. *acuta*), Lemmon's syntrichopappus (*Syntrichopappus lemmonii*), Mojave Indian paintbrush (*Castilleja plagiotoma*), Peirson's morning-glory, pygmy poppy (*Canbya candida*), desert tortoise, California horned lizard (*Phrynosoma coronatum frontale*), San Diego horned lizard (*Phrynosoma coronatum blainvillii*), golden eagle (*Aquila chrysaetos*) (nesting and wintering), Ferruginous hawk (*Buteo regalis*) (wintering), Swainson's hawk, merlin (*Falco columbarius*) (wintering), prairie falcon (*Falco mexicanus*) (nesting), white-tailed kite (*Elanus leucurus*) (nesting), long-eared owl (*Asio otus*) (nesting), short-eared owl (*Asio flammeus*) (nesting), western burrowing owl, LeConte's thrasher (*Toxostoma lecontei*), loggerhead shrike (*Lanius ludovicianus*), mountain plover (*Charadrius montanus*), tri-colored blackbird (*Agelaius tricolor*) (nesting colony), Vermilion flycatcher (*Pyrocephalus rubinus*) (nesting), Mohave ground squirrel, American badger (*Taxidea taxus*), pallid bat (*Antrozous pallidus*), spotted bat (*Euderma maculatum*), Townsend's big-eared bat (*Corynorhinus townsendii*), western mastiff bat (*Eumops perotis*), and Tehachapi pocket mouse (*Perognathus alticolus inexpectatus*).

**Cultural Resources.** SCE has submitted the following Cultural Resources Survey Reports for Segment 4 (review status of each report is noted in parenthesis following the report name):

- *Supplemental Archaeological Investigation and National Register of Historic Places and California Register of Historical Resources Eligibility Evaluation of Archaeological Site CA-KER-7214H SCE TRTP, Segment 9, Kern County, CA (also affects Whirlwind Substation)* (AE memorandum dated 8-24-10 concurs with SCE final report.)
- *TRTP Segments 4, 5, and 10 – Proposed Capping of Cultural Resources (Draft 7/05/2010)* (Under review.)
- *Supplemental Archaeological Survey Report #1, TRTP Segment 4, Kern and Los Angeles Counties, CA* (AE memorandum dated 9-6-10 concurs with report findings. ANF memorandum dated 9-8-10 concurs with report findings.)
- *Supplemental Archaeological Survey Report #2, TRTP Segment 4, Kern and Los Angeles Counties, CA* (SCE submitted report 9-2-10. Under review.)
- *Cultural Resources Survey Report with Negative Findings, Segment 4 Geotechnical Boreholes* (Comments provided in AE memorandum dated 8-2-10.)

A paleontological sensitivity review was conducted in 2010 (Paleo Solutions 2010). In accordance with the final version of the PRMP and the paleontological sensitivity report, paleontological resource monitoring is recommended during any earth moving activities associated with the Segment 4 T/L.

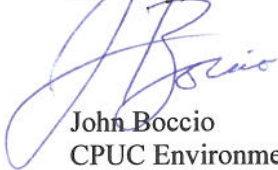
**The conditions noted below shall be met by SCE and its contractors:**

- All sensitive resource buffers shall be flagged prior to construction/site occupation. Resource flagging shall be field verified by the CPUC EM prior to site use.
- All construction areas and access roads identified in the NTPR submitted by SCE shall be flagged prior to construction. Flagging of construction areas and access roads shall be field verified by the CPUC EM prior to site use.
- All 2010 focused biological survey reports applicable to the project areas in this NTP shall be reviewed and approved by the CPUC prior to construction or site occupation at these locations.
- A biological preconstruction survey, including maps of identified resources, shall be submitted to and approved by the CPUC prior to site occupation/disturbance. All threatened or endangered species observations from the 2010 protocol level surveys shall be included on these project maps. Confirmation of agency notification of listed species observations in the project areas shall be submitted to the CPUC prior to site occupation.

- The revised jurisdictional delineation for drainages based on road revisions and structure engineering changes shall be submitted to the CPUC and field verified by the CPUC EM prior to construction or site occupation.
- Biological survey sweeps are required to occur immediately preceding and during project area set up and occupation as part of required biological monitoring activities. Sweeps for nesting birds shall include a 500 foot buffer. If active nests are found, a biological monitor shall establish a required 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 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. The biological monitor shall be responsible for documenting the results of the surveys and the ongoing monitoring. The buffer may be adjusted with the approval of CDFG and USFWS, and with prior knowledge of the CPUC. If special-status plant or animal species or bird nests are observed within the project area, CDFG and the CPUC EM shall be notified immediately (within 24 hours). After complete sweeps have been submitted and approved by the CPUC EM, site occupation can occur; however, if occupation does not occur within seven calendar days of survey, biological clearance sweeps shall be re-conducted prior to site occupation, including nesting bird surveys during the breeding season.
- No construction or site occupation shall occur in the project areas under consultation with CDFG for the 2081 Incidental Take Permit and 1602 Streambed Alteration Agreement until those permits are issued and all applicable conditions for Swainson's hawk, desert tortoise and Mohave ground squirrel are implemented.
- The Segment 4 T/L disturbance areas shall be included in the project Habitat Restoration and Revegetation Plan required by MM B-1a, subject to review and approval by CPUC.
- Topsoil shall be salvaged and stored properly for replacement in the areas trenched for the fiber optic cable (FOC).
- Prior to helicopter use for work on Segment 4 T/L, a biological report shall be submitted to the CPUC regarding potential impacts to sensitive species.
- Prior to commencement of construction activities, all crew personnel including haul truck and concrete truck drivers shall be appropriately trained on environmental issues including protocols for air quality, hazardous materials, biological resources, known and unanticipated cultural materials, as well as SWPPP BMP's. A log shall be maintained on site with the names of all crew personnel trained.
- Prior to site occupation and/or construction, SCE shall have all applicable cultural resources reports reviewed and approved by the participating agencies. Conditions noted within the subject reports shall be implemented.
- In accordance with the final version of the PRMP and the paleontological sensitivity report, paleontological resource monitoring shall be conducted during any earth moving activities associated with the Segment 4 T/L.
- If unanticipated biological, cultural or paleontological resources are detected, the CPUC EM shall be notified immediately.

- The Phase I ESA for Segment 4 T/L shall be reviewed and approved by the CPUC prior to the commencement of construction activities.
- The City of jurisdiction's approval or applicable Municipal Code reference shall be provided to CPUC for all future Sunday work or for work outside of the hours 7:00 AM to 7:00 PM, Monday through Saturday, prior to the commencement of work.
- SCE shall provide a letter to the CPUC from a California registered geotechnical engineer following the completion date of all of the foundation activities for each segment. The letter will confirm that SCE followed the geotechnical report recommendations and the common engineering practice in southern California at the time of the project.
- For the TRTP project-wide Fire Management Plan (non-ANF), SCE requested that they be allowed to submit a separate Operations and Maintenance Fire Management Plan 60 days prior to energizing transmission lines rather than prior to construction. The CPUC agreed to this change in the timing of the submittal.
- Refueling and fueling locations shall be a minimum of 100-feet away from existing drainages. If construction debris or spills enter into environmentally sensitive areas, the jurisdictional agencies and the CPUC EM shall be notified immediately.
- Copies of all relevant permits, compliance plans, and this Notice to Proceed shall be available on site for the duration of construction activities.
- 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.

Sincerely,



John Boccio  
CPUC Environmental Project Manager

cc: V. Strong, Aspen