

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



March 5, 2012

Susan J. Nelson, AIA
Regulatory Affairs
Southern California Edison
2244 Walnut Grove Avenue, Quad 3D, GO1
Rosemead, CA 91770

RE: SCE Antelope Transmission Project (Antelope-Tehachapi 500kV and 220kV Transmission Line),
Highwind Substation Notice to Proceed (NTP #31)

Dear Ms. Nelson,

Southern Californian Edison (SCE) has requested authorization from the California Public Utilities Commission (CPUC) for construction of the Antelope Transmission Project (Antelope-Tehachapi 500kV and 220kV Transmission Line), Highwind Substation.

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 #31 is granted by CPUC for the proposed activities based on the following factors:**

- SCE submitted the following information:

SCE requests a Notice to Proceed (NTP) for construction of the Antelope Transmission Project (Antelope-Tehachapi 500kV and 220kV Transmission Line), Highwind Substation. The Highwind Substation, hereafter referred to as "Substation", will be located south of Highline Road on Jameson Street in the Tehachapi area of unincorporated Kern County. The Substation, in the Tehachapi Wind Resource Area, will be located at Mile S3-0.0 of the Segment 3B Project ("Project") route.

The work on TRTP Segment 2 was addressed in a separate NTP request and was approved by the CPUC on September 26, 2008. The work on Segment 3A was also addressed in a separate NTP request and was approved by the CPUC on October 22, 2008. The work on Segment 3B was addressed in a separate NTP request, which was approved by the CPUC on February 21, 2012.

PROJECT DESCRIPTION

The Highwind Substation, in the Tehachapi Wind Resource Area, will be located at Mile S3-0.0 of the Project route. The site is desert terrain with an approximate three percent slope from southwest to northeast that is slightly diagonal to the Substation equipment layout. It will be necessary to alter the existing topography through grading to achieve a desired slope for the substation. As a result, the substation will ultimately be sloped at two percent from south to north.

The Substation property contains approximately 56 acres of land. The total area of land disturbed within the property associated with the construction of the 220/66 kV Highwind Substation requested in this NTP will be approximately 17.8 acres. The total area within the perimeter fence of the substation when fully developed will measure 225 feet by 460 feet and contain 2.4 acres. The remaining disturbance acreage

consists of the drainage features and the access driveway. The overall substation pad will be oriented north-to-south with one vehicular access road to connect Jameson Street to the Substation.

The Substation will be initially equipped with the following: two line dead-end structures, one 220 kV circuit-breaker, four 220 kV disconnect switches, three coupling capacitor voltage transformers (CCVTs), one new Mechanical Electrical Equipment Room (MEER) Building, new protective relaying equipment, and one 100-foot tower with microwave antenna.

Additional facilities and equipment will be installed in the future as necessary to accommodate additional wind energy projects that may apply for interconnection facilities agreements. Facilities and equipment that may be installed in the future includes the following: nine 220 kV breaker and half bays, ten 220 kV bus dead-end structures, three 220 kV rated 79.2/156-MVAR each shunt capacitor banks, four 280 MVA three-phase 220/66 kV transformer banks, twelve 66 kV lines, four sets of 66 kV shunt capacitor banks, one station light and power system with companion equipment (one distribution class transformer (2009), one diesel emergency generator (2009) and one distribution class transformer, each rated 750-kVA three-phase capacity), four sets of 66/12 kV transformers, four sets of 12 kV shunt capacitor banks, and sixteen 12 kV circuits.

Construction Methodology

Construction of the Substation consists of three major activities:

- Grading of the Substation pad to accommodate the first construction phase and the access road, and installation of the perimeter fence
- Installation of the 220 kV switchyard and associated equipment
- Installation of the Mechanical Electrical Equipment Room/Information Technology (MEER/IT) Building

The equipment required for the 220 kV switchyard includes the following:

- Two 64-foot high by 45-foot wide line dead-end structure and foundation
- Three tie-downs with 2B-1590 kcmil conductors per phase each
- Three 220 kV capacitor voltage transformers
- One 220 kV 3000A 40 kA circuit breaker and foundation
- Four 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 ACSR conductors; total: 300 feet

The MEER/IT Building will occupy a space approximately 51 feet by 77 feet and will include the following equipment: battery charger, batteries, light and power panel, AC distribution panel, DC distribution panel, circuit breaker control switch, remote control equipment, and protective relay equipment.

The equipment required for the Substation construction includes the following: five-ton truck, 980 loader/scrapper, compactor, crane, crane 150-ton, crew hauling trucks, trenching equipment, truck mounted auger for drilling, dump truck, forklift, grader, man-lift, soils test crew truck, support truck, survey truck, tractor/backhoe, truck crane, and water truck.

Substation construction will occur within the Substation perimeter area in accordance with accepted construction industry standards. Work will generally be scheduled in daylight hours (6:00 a.m. to 5:00 p.m.), Monday through Saturday, if needed. Kern County does not have any construction noise ordinance restrictions on work hours. 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.

A brief description of the construction methodology to be employed for the construction of Highwind Substation is provided below.

Site Preparation

Within the 56 acre Substation property, the initial substation pad and access road will be graded. Side-slope grading will be required beyond the Substation pad boundaries in order to blend existing terrain with the new Substation pad and to accommodate perimeter surface drainage improvements. In order to allow for efficient and safe construction of the substation, including construction equipment movement and temporary material storage, the disturbance area will extend to the limits of the substation at final build-out of approximately 27.9 acres. A perimeter fence will be constructed to enclose the Substation and another fence will enclose the 56 acre property.

The following elements of site preparation will be required for Highwind Substation:

- Grade the initial 460-foot by 225-foot Substation pad area (within the perimeter fence)
- Grade the cut and fill side slopes to blend the existing terrain with the new pad
- Grade and install the Substation access road
- Grade the drainage channels, berms, and v-ditches outside of the substation pad and along the access driveway
- Install approximately 4,630 feet of eight-foot-high perimeter fence with barbed wire, and one 30-foot-wide gate
- Install a 350-MCM copper conductor ground grid system

Grading

The grading design establishes a high point at the southern edge of the Substation pad and slopes down at a two percent slope towards the northern edge of the pad.

Prior to the start of grading, the entire area to be graded will be stripped of all organic matter and loose rocks. Any waste materials encountered will be removed as required by the environmental and geotechnical investigations. Waste material collected from the stripping operations will be tested for contaminants, if site conditions, such as evidence of prior use involving hazardous materials, warrant additional investigation.

Once the surface has been cleared, the grading operations will begin. An estimated 10,000 cubic yards of soil will be cut from the higher elevations and relocated to build up portions of the access road and will also be used to form a protective earthen berm barrier along the upslope boundaries to prevent surface storm water runoff from entering the Substation. Included within the protective berm area will be concrete lined drainage channels and a vegetated swale to redirect surface rainwater flow around the perimeter of the site. If excessive cut or fill results, minor alterations to the site elevation and/or slopes might be needed in an attempt to achieve an overall balance. If necessary, soils may need to be imported to the site or exported from the site to achieve balanced earthwork. During grading operations, dust will be controlled by watering.

The following list represents the estimated waste that will be disposed of due to construction of Highwind Substation:

- 13,000 pounds of soil vegetation waste
- 6,000 pounds of steel/aluminum/copper
- 2000 pounds of wood waste
- 1500 pounds of sanitation waste
- 1000 pounds of concrete waste
- 1500 pounds miscellaneous waste

Foundation Installation

Approximately 80 foundations of various sizes would be constructed throughout the area to support equipment and steel structures. In addition, a network of partially buried concrete trenches will be installed throughout the Substation area. Excavation of these foundations and trenches will commence following completion of grading and other yard improvements, and will continue for several weeks. An estimated

5,000 cubic yards of soil will be excavated for foundations and trenches. Approximately 440 columns required to support the pre-cast modular perimeter wall will generate an estimated 500 cubic yards of soil. The anticipated total spoils of 5,500 cubic yards will be spread and compacted on a portion of the Substation property.

Drainage

The site drainage will be developed during final engineering design to control surface runoff. In compliance with the Clean Water Act, all new site drainage installations will be consistent with the National Pollutant Discharge Elimination System (NPDES) and the SWPPP, which are to be prepared for the site after final engineering design is completed. NPDES requirements focus on the protection of water quality, through such provisions as the definition of allowable discharge materials, monitoring requirements, reporting requirements, and mitigation measures. Off-site surface runoff will be directed into v-shaped concrete lined channels or vegetated swales around the perimeter of the Substation directing surface water away from the graded pad and discharging it through the employment of reinforced concrete pipes and rock lined energy dissipation fields. Surface runoff generated within the site will sheet flow from the south to the north into a concrete v-ditch and will ultimately drain into an existing earthen channel north of the substation. All of these methods are designed to minimize the velocity of surface water runoff and protect the landscape from erosion.

Access

The main facility access will be a 30-foot wide, 1,550-foot long asphalt concrete paved road connecting Jameson Road to a 30-foot wide rolling gate. An internal network of asphalt concrete paved driveways will provide access to the various major sections of the switchyard and the control building. Information regarding a temporary access road into the substation site is described below.

Paving

Asphalt concrete paving will be applied to the facility access road and to all designated internal driveways over an aggregate base material and a properly compacted sub-grade, as recommended by the geotechnical investigation. These paving activities will take place after major construction.

Rock Surfacing

Those areas within the Substation perimeter that were not paved or covered with concrete foundations or trenches will be surfaced with a four-inch layer of untreated, ¾-inch nominal crushed run rock. The rock will be applied to the finished grade surface after all grading and below grade construction has been completed.

Spill Prevention Control and Countermeasures (SPCC)

An SPCC plan will not initially be required for Highwind Substation. Under federal regulation by the Environmental Protection Agency (EPA), the owner of a facility is required to implement an SPCC plan if the facility meets the following three criteria: (1) The facility is not related to transportation; (2) The facility has an aggregate aboveground storage capacity of at least 1,320 gallons (only considering containers that are 55 gallons or more) or an in ground storage capacity of at least 42,000 gallons; (3) There is a reasonable expectation of discharge into or upon navigable waters of the United States or adjoining shorelines. In addition, more stringent regulations by the State of California independently require that an SPCC plan be implemented for any facility with an aboveground storage capacity of at least 10,000 gallons. Storage capacity of the 220 kV interconnection facilities at Highwind Substation is not anticipated to equal or exceed 1,320 gallons, thereby not triggering the need for an SPCC plan under either EPA or California regulations. However, an SPCC plan will be prepared and implemented if SPCC thresholds for oil volume are ever reached.

Storm Water Pollution Prevention Plan (SWPPP)

During construction, measures will be in place to ensure that contaminants are not discharged from the construction site. A SWPPP will be developed that will define areas where hazardous materials will be stored; where trash will be placed; where rolling equipment will be parked, fueled and serviced; and where construction materials, such as reinforcing bars and structural steel members, will be stored. Erosion control during grading of the unfinished site and during subsequent construction will be in place and monitored as specified by the SWPPP. A silting basin(s) will be established to capture silt and other materials, which might otherwise be carried from the site by rainwater surface runoff. Site improvements at Highwind Substation will result in impervious areas from all concrete foundations used for equipment and structures, the concrete foundation for the MEER facility, and asphalt and concrete on access driveways.

Perimeter Security

The Substation will be enclosed by a perimeter fence. The fence will conform to the requirements for electrical substations and have a minimum height of eight feet above the adjacent finished grade to the outside of the Substation.

Activity Schedule

Construction of the Substation is anticipated to continue through December 2012.

- **Temporary Access Road.** On February 23, 2012, SCE submitted a request for a Modification to the Notice to Proceed Request for the addition of a temporary access road into the Highwind Substation and Wire Stringing Site #1 for the Segment 3B Transmission Line (T/L). The proposed temporary access road extends from Jameson Road westerly to the Highwind Substation and Segment 3B T/L. The road would have a total width of approximately 18 feet (14-foot road base with a 2-foot-wide berm on each side), and would include appropriate turning radii to allow large equipment access. Portions of the proposed road and turning radii overlap existing CPUC-approved disturbance areas. The total new disturbance area associated with the road and turning radii is approximately 0.35 acres. Construction activities will include grubbing and grading. The vegetation community that will be impacted at the site of the temporary access road is rabbitbrush scrub.
- **Biological Resources:** SCE submitted a biological review with the NTPR by ICF International dated December 2011, titled *SCE Antelope Transmission Project, Segment 3B – Highwind Substation Biological Review*. A biological review was conducted for the Antelope Transmission Project (ATP) Segment 3B – Highwind Substation (Project Component) and the 500-foot buffer. The Project Component and the 500-foot buffer make up the Biological Study Area (BSA). The Project Component grading limits encompass 17.8 acres south of Highline Road on Jameson Street in the City of Tehachapi. Potential impacts from substation and access road construction for the Project Component will total approximately 28.3 acres. The report discusses the literature review and focused field surveys conducted for the Project Component, including focused surveys conducted in 2010 and 2011 for sensitive species potentially occurring within the Antelope Transmission Project (ATP) right-of-way (ROW). Focused surveys were conducted in 2010 for special-status plants, burrowing owl (*Athene cunicularia*), and American badger (*Taxidea taxus*) along the ATP Segment 3B alignment, which overlaps the Project Component. Focused surveys for special-status plants and Swainson's hawk (*Buteo swainsoni*) were also completed for the Segment 3B alignment in 2011. The general biological conditions, including major vegetation communities, plant and wildlife inventories, and hydrologic features, were documented within the BSA.

Vegetation Communities

Three vegetation communities were identified within the BSA; California annual grassland, rabbitbrush scrub, and disturbed/developed areas. The majority of the impacts from the substation and access road construction, approximately 21 acres, would occur on rabbitbrush scrub habitat. The Project Component is not located within federally designated Critical Habitat for any species and does not overlap state-protected

or regulated habitats. Native vegetation will be avoided to the maximum extent feasible, and biological monitoring will assist in avoiding and/or minimizing impacts to the habitats present.

Plants

Based upon the literature search, previous surveys in surrounding areas, and observed conditions on and adjacent to the Project Component, suitable habitat is present within the BSA for four special-status plant species. These species include: round-leaved filaree (*California macrophylla*), Piute Mountains navarretia (*Navarretia setiloba*), Robbin's nemacladus (*Nemacladus secundiflorus* var. *robbinii*), and Bakersfield cactus (*Opuntia basilaris* var. *treleasei*). No special-status plant species were identified within the Project Component during the 2010 or 2011 focused surveys (LSA 2010e; ICF 2011gt).

Wildlife Species

Vegetation communities within the BSA provide suitable habitat for 21 special-status wildlife species. However, no special-status wildlife species have been observed within the BSA during previous focused surveys (LSA 2010d, 2010e; ICF 2011gt; ICF and Bloom 2011d).

Raptors

Vegetated areas within and adjacent to the Project Component provide suitable foraging for burrowing owl and Swainson's hawk, and also provides suitable nesting habitat for burrowing owl.

Reptiles

The Project Component provides suitable habitat for the San Diego (Coast) horned lizard (*Phrynosoma coronatum blainvillii*) and this species has been historically recorded in the northeast corner of the BSA (CDFG 2011c).

Mammals

Suitable habitat occurs within the Project Component for the Tehachapi pocket mouse (*Perognathus alticolus inexpectatus*) and this species has been historically recorded in the southwest corner of the BSA (CDFG 2011c). The Project Component also provides suitable habitat for American badger, although no American badgers or potential burrows were identified within the BSA during 2010 focused surveys (LSA 2010d).

Hydrological Features

Surveys for locations of jurisdictional wetlands and waters of the United States and State have been completed for the Project Component. Streambeds and banks of any streams identified within the Project Component will be avoided per APM BIO-5. If necessary, a Streambed Alteration Agreement (SAA) will be secured from CDFG and any impacts would be mitigated based on the terms of the SAA permit and any other additional regulatory permits.

- **Cultural and Paleontological Resources:** SCE submitted cultural and paleontological resources information with the NTPR. A cultural resources records search and surveys were conducted for the TRTP in support of Segment 3B and proposed substations (Ahmet et al 2006 and Pacific Legacy 2011). The results of these assessments indicate that there are no cultural resources or historical resources as defined per CEQA located within the footprint of the Highwind Substation site. All construction personnel will be trained in procedures to address unanticipated discoveries of buried archaeological materials and human remains should such discoveries occur when an archaeological monitor is not present and consistent with mitigation measures defined in the Final EIR (Aspen 2006).

SCE also submitted the following cultural resources reports in support of the Antelope Transmission Line/Tehachapi Renewable Transmission Project, Segment 3B – Highwind Substation, in Kern County, California. All of the reports were reviewed by Applied Earthworks, Inc. and approved in a letter dated

February 16, 2012, with the exception of the last report, for which Applied Earthworks had specific comments that need to be addressed prior to final approval.

- Pacific Legacy, 2012. Letter Report: *Confidential Supplemental Archaeological Survey Report for Segment 3B, Tehachapi Renewable Transmission Project, Kern County, California.*
- Pacific Legacy, 2012. Letter Report: *Supplemental Archaeological Survey Report and Cultural Resources Management Plan, Tehachapi Renewable Transmission Project Segment 3B, Kern County, California.*
- Pacific Legacy, 2011. *Supplemental Archaeological Survey Report and Cultural Resources Management Plan, Tehachapi Renewable Transmission Project Segment 3B, Kern County, California.*
- Pacific Legacy, 2012. *Construction Phase Management Plan for Cultural Resources Associated with the Southern California Edison Tehachapi Renewable Transmission Project, Segment 3B, Kern County, California.*

SCE submitted the following paleontological report:

- Gust and Scott 2008. *Paleontological Resources Management Plan, Antelope Transmission Line, Segments 2 and 3.*

Per the Paleontological Resources Management Plan, highly sensitive soils (Qoa) for yielding paleontological resources exist at the Highwind Substation site. Paleontological monitoring is required during all earthmoving activities.

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

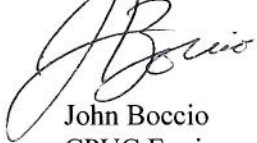
- All sensitive resource buffers shall be flagged prior to site occupation/construction. Resource flagging shall be field verified by the CPUC Environmental Monitor (EM) prior to project area use.
- During the nesting season, sweeps for nesting birds shall include a 500 foot buffer. If active nests are 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. For *listed riparian species*, no work will be authorized within 500 feet of an active nest and all activities will stop immediately within 500 feet of the nest. 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. 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.
- Prior to conducting any ground disturbance or site mobilization, SCE shall provide documentation that all Bakersfield cactus (*Opuntia basilaris* var. *treleasei*) have been flagged for avoidance. This shall include documentation that the prescribed taxonomic keys have been accurately and consistently utilized by qualified botanists with experience with this species. SCE shall provide approval from the USFWS and CDFG that these measures are satisfactory to avoid take of this species.
- SCE shall submit the CDFG 1602 Streambed Alteration Agreement and any other applicable State and federal permits to the CPUC prior to work in areas covered under the permit(s). Any additional CDFG

1602 Streambed Alteration Agreements and/or Amendments shall also be submitted to the CPUC prior to work in areas covered under the permit.

- 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).
- If a Swainson's hawk (*Buteo swainsoni*) nest site is found during the time period of March 1 and September 15, consultation with CDFG shall be required prior to commencement of construction activities within ½ mile of the subject nest.
- Cultural Resources - Prior to construction, SCE shall submit responses to Applied Earthworks, Inc. comments from their letter of February 16, 2012, regarding the Construction Phase Management Plan, for CPUC review and approval.
- If unanticipated biological, cultural or paleontological resources are detected, the CPUC EM shall be notified immediately.
- Per Mitigation Measure G-8 and the *Paleontological Resources Management Plan*, a certified paleontological monitor will monitor compliance at construction areas where excavation is being conducted in geologic units of moderate to high sensitivity, which includes the Highwind Substation. 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.
- 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 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 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.
- 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.
- If construction debris or spills enter into environmentally sensitive areas, the jurisdictional agencies and CPUC EM shall be notified immediately.

- In the case of a hazardous materials spill, the CPUC EMs shall be immediately notified and an incident report shall be submitted to the CPUC within five (5) working days of the spill incident and shall include spill volumes and any resource damage that may have occurred.

Sincerely,

A handwritten signature in black ink, appearing to read "J. Boccio", written in a cursive style.

John Boccio
CPUC Environmental Project Manager

cc: V. Strong, Aspen