

Addendum

CONSTRUCTION OF AQUEDUCT BRIDGE

ON SOUTHERN CALIFORNIA EDISON'S APPLICATION FOR THE

Tehachapi Renewable Transmission Project

Application No. A.07-06-031

SCH No. 2007081156

Prepared By:



March 2011

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A. Introduction and Background

On June 29, 2007, Southern California Edison (SCE) submitted to the California Public Utilities Commission (CPUC) application A.07-06-031 for a Certificate of Public Convenience and Necessity (CPCN) and a Proponent's Environmental Assessment (PEA) for the construction and operation of the proposed Tehachapi Renewable Transmission Project (TRTP or Project). The TRTP includes new and upgraded transmission infrastructure along approximately 173 miles of new and existing rights-of-way (ROW) in southern Kern County, portions of Los Angeles County, including the Angeles National Forest (ANF), and the southwestern portion of San Bernardino County, California, to interconnect new wind energy projects in eastern Kern County to the electrical grid. The Project will provide the electrical facilities necessary to integrate levels of new wind generation in excess of 700 megawatts (MW) and up to approximately 4,500 MW in the Tehachapi Wind Resource Area.

In reviewing SCE's application, the CPUC determined that the proposed Project could cause a significant adverse effect on the environment and, therefore, determined that the preparation of an Environmental Impact Report (EIR) would be needed. The CPUC filed a Notice of Preparation (NOP) with the State Clearinghouse in the Office of Planning and Research as an indication that a Draft EIR would be prepared. A Draft EIR was prepared and distributed on February 13, 2009, for public review and comment in accordance with CEQA procedures (State CEQA Guidelines §15087). Responses to substantive comments received on the Draft EIR were prepared by the Lead Agency (CPUC) and published in the Final EIR (State CEQA Guidelines §15088) on October 30, 2009 (Aspen, 2009). The Final EIR was certified and a CPCN was granted by the CPUC (Decision 09-12-044, SCH #2007081156) on December 17, 2009 (CPUC, 2009).

Since that time, SCE has completed final engineering on portions of the approved Project. Based on final engineering, additional details associated with the construction of the Whirlwind Substation have been further defined, as presented in an email to the CPUC from SCE dated March 1, 2011 (SCE, 2011). This Addendum is required to determine whether or not this modification to the Project was previously covered by the analysis completed in the Final EIR or would result in any new or different impacts from what was previously analyzed in the Final EIR. This modification is described in detail in Section C, below. A description of the Project, as approved by the CPUC, is also provided below (Section B).

Based on the evaluation of SCE's proposed modification to the approved Project described in Section D below, no new or substantially different impacts have been identified, no changes to impact significance conclusions are needed, and no new mitigation is necessary. Therefore, there is no need for any additional CEQA analysis of the Project modification described in Section C, below.

B. Overview of the Approved Project

The Project, as approved by the CPUC, includes the installation of new and upgraded transmission infrastructure along approximately 173 miles of new and existing ROW in southern Kern County, portions of Los Angeles County, including the ANF, and the southwestern portion of San Bernardino County, California.

For descriptive purposes, the Project is separated into eight distinct segments, referred to as Segments 4 through 11. Segments 4 through 8, as well as Segments 10 and 11 of the Project are transmission facilities, while Segment 9 addresses the addition and upgrade of substation facilities. The Project's major components include (see Section 2 of the Final EIR for a detailed description of the Project):

- Two new single-circuit 220-kilovolt (kV) transmission lines traveling in parallel approximately 4 miles over new right-of-way (ROW) from the Cottonwind Substation to the proposed new Whirlwind Substation (Segment 4 - 220 kV).
- A new single-circuit 500-kV transmission line, initially energized to 220 kV, traveling approximately 15.6 miles over new ROW from the proposed new Whirlwind Substation to the existing Antelope Substation (Segment 4 - 500 kV).
- Replace approximately 17.4 miles of the existing Antelope-Vincent 220-kV transmission line and the existing Antelope-Mesa 220-kV transmission line with only one new transmission line built to 500-kV standards in existing ROW between the existing Antelope Substation and the existing Vincent Substation (Segment 5).
- Rebuild approximately 31.9 miles of existing 220-kV transmission line to 500-kV standards from existing Vincent Substation to the southern boundary of the Angeles National Forest (ANF). This segment includes the rebuild of approximately 26.9 miles of the existing Antelope-Mesa 220-kV transmission line and approximately 5 miles of the existing Rio Hondo-Vincent 220-kV No. 2 transmission line (Segment 6).
- Rebuild approximately 15.8 miles of existing 220-kV transmission line to 500-kV standards from the southern boundary of the ANF to the existing Mesa Substation. This segment would replace the existing Antelope-Mesa 220-kV transmission line (Segment 7).
- Rebuild approximately 33 miles of existing 220-kV transmission line to 500-kV standards from a point approximately 2 miles east of the existing Mesa Substation (the "San Gabriel Junction") to the existing Mira Loma Substation (Segment 8A). This segment would also include the rebuild of approximately 7 miles of the existing Chino-Mira Loma No. 1 line from single-circuit to double-circuit 220-kV structures (Segment 8B). A new circuit between Chino Substation and approximately 0.8 mile west of the Mira Loma Substation (6.4 miles) would also be installed on the new double-circuit 500-kV structures built as part of Segment 8A (Segment 8C).
- Whirlwind Substation, a new 500/220-kV substation located approximately 4 to 5 miles south of the Cottonwind Substation near the intersection of 170th Street and Holiday Avenue in Kern County near the TWRA (Segment 9).
- Upgrade of the existing Antelope, Vincent, Mesa, Gould, and Mira Loma Substations to accommodate new transmission line construction and system compensation elements (Segment 9).
- Build a new 500-kV transmission line traveling approximately 16.8 miles over new ROW between the approved Windhub Substation (not part of this project) and the proposed new Whirlwind Substation (Segment 10).
- Rebuild approximately 18.7 miles of existing 220-kV transmission line to 500-kV standards between the existing Vincent and Gould Substations. This segment would also include the addition of a new 220-kV circuit on the vacant side of the existing double-circuit structures of the Eagle Rock-Mesa 220-kV transmission line, between the existing Gould Substation and the existing Mesa Substation (Segment 11).
- Installation of associated telecommunications infrastructure.

C. Modification to the Project

Based on final engineering completed to date by SCE for the TRTP, an additional modification to the Project associated with the Whirlwind Substation has been identified. Specifically, the modification would consist of construction of a below grade structural reinforcement (referred to as a bridge) over the Los Angeles Department of Water and Power's (LADWP) water aqueduct (an 89-inch diameter underground welded steel pipeline) that parallels the west side of 170th Street West (See Appendix A).

The bridge is needed to accommodate the vehicle and equipment traffic during construction and operation of the Whirlwind Substation, including load associated with the transformer delivery during construction.

The bridge was mandated by the LADWP subsequent to completion of the Final EIR and, as such, the bridge was not included in the document.

When completed, the aqueduct bridge would occur completely below grade. The majority of the bridge would be covered by the asphalt-paved entrance road to the substation and 170th Street West. The northwestern and southwestern corners of the bridge structure would be covered with compacted soil. As such, there are no permanent aboveground changes associated with the proposed bridge.

Temporary disturbance areas associated with construction of the aqueduct bridge would consist of the following:

- The excavation area for the bridge and a portion of the road shoulder along the west side of 170th Street West.
- A strip of temporary asphalt pavement installed along the east side of 170th Street West. This pavement will provide uninterrupted access on 170th Street West. The pavement would be removed following completion of the bridge construction.

These disturbance areas (Appendix A) comprise a total of approximately 0.23 acre. Approximately 0.13 acre occurs within the previously approved disturbance area for Whirlwind Substation, while the remaining 0.10 acre would be new disturbance.

Construction activities would occur within the western (southbound) lane, western shoulder, and eastern shoulder of 170th Street West (Appendix A). An overview of the bridge construction activities is provided below.

- **Temporary Road Widening Construction.** A temporary strip of asphalt pavement would be installed along the east side of 170th Street West to account for traffic diversion around the bridge construction area. The temporary asphalt would be approximately 5 feet wide adjacent to the bridge excavation area, and taper back to the existing road width to the north and south of the bridge excavation area (Appendix A). The total length of the asphalt strip would be approximately 800 feet (north-south) and would occur within the street right-of way. The area would be graded and temporary asphalt pavement installed.
- **Bridge Construction.** A portion of the southbound (western) lane of 170th Street West would be sawcut and removed and excavation for bridge construction performed. The bridge would consist of a concrete slab on caissons that will be cast in place. The dimensions of the bridge would be approximately 100 feet (north-south) by 15 feet (east-west). The excavation areas would be covered with steel traffic-rated plates during non-construction hours. Temporary traffic controls would be installed for the duration of the construction activities.
- **Restoration.** Upon completion of bridge installation, the southbound lane of 170th Street West would be restored (asphalt, road base, compacted subgrade, shoulder), temporary traffic controls removed, and roadway striping restored. The temporary asphalt strip along the east side of 170th Street West would be removed.

D. Evaluation of Modification

After review of the Final EIR, the CPUC has determined that the proposed modification would not result in any impacts that are new or substantially different from those described in the Final EIR, as discussed below. Those environmental issue areas for which a potential change in the nature or magnitude of an impact could occur as a result of the proposed modification are discussed in Section D.1 and are indicated

in Table 1 below. The determination made from this evaluation is that all impacts from the proposed modification are either within the range of impacts already discussed in the Final EIR or are substantially similar to those impacts. No new significant impacts would result from the proposed modification and there would be no significant change in the magnitude of impacts previously disclosed in the Final EIR. As a result, no new mitigation measures are needed. Those issue areas for which it was determined that no change in impacts would occur as a result of the proposed modification are discussed briefly in Section D.2.

Table 1 – Environmental Issue Areas Where Potential Change May Occur

<input type="checkbox"/>	Agricultural Resources	<input checked="" type="checkbox"/>	Air Quality	<input checked="" type="checkbox"/>	Biological Resources
<input checked="" type="checkbox"/>	Cultural Resources	<input type="checkbox"/>	Geology/Soils/Paleontology	<input type="checkbox"/>	Hazards and Hazardous Materials
<input checked="" type="checkbox"/>	Hydrology/Water Quality	<input type="checkbox"/>	Land Use	<input type="checkbox"/>	Mineral Resources
<input checked="" type="checkbox"/>	Noise	<input type="checkbox"/>	Population/Housing	<input type="checkbox"/>	Public Services
<input checked="" type="checkbox"/>	Transportation/Traffic	<input type="checkbox"/>	Utilities/Service Systems	<input checked="" type="checkbox"/>	Visual Resources

D.1 Issue Areas Where Modification Results in a Potential Change in Impacts

Air Quality

Air quality impacts as a result of the bridge construction would be similar to the impacts described in the Final EIR. Bridge construction would result in an additional approximate 0.13 acre of ground disturbance. A minimal increase in the number of vehicle trips would be associated with the proposed bridge construction. Therefore, any emissions increase due to the bridge construction would be very minor considering total Project emissions and would be mitigated through Mitigation Measures AQ-1a through AQ-1i. As a result, no new or substantially different air quality impacts would occur, and no new mitigation measures would be necessary. Air quality impacts associated with the Project would remain significant and unavoidable.

Biological Resources

The aqueduct bridge would be located within disturbed/developed and rabbitbrush scrub vegetation communities. The surrounding area consists of Mojave mixed woody scrub, Joshua tree woodland, Mojave creosote bush scrub, rabbitbrush scrub, and disturbed/ developed vegetation communities.

The proposed modification does not contain any jurisdictional drainage features, special status species, habitats, or other sensitive biological resources. Burrowing owl and desert kit fox were detected in the Biological Survey Area for the proposed modification. A clearance sweep would be performed by a CPUC-approved biological monitor within 3 days before the start of construction, on the morning construction is to start, and daily during construction. The total proposed modification disturbance area outside of the Whirlwind footprint is 0.10 acre. Of that, 0.03 acre is desert tortoise, Mojave ground squirrel, and Swainson’s hawk habitat. The acreages of the proposed modification footprint by vegetation community both within and outside of the overlapping Whirlwind Substation footprint are shown in the attached Biological Report (Appendix B).

For a list of Applicant Proposed Measures and TRTP Final EIR mitigation measures applicable to the proposed modification, please see Appendix B. With implementation of the Project’s mitigation measures, no new or substantially different biological resources impacts would occur and no new mitigation measures would be necessary.

Cultural Resources

Pacific Legacy, Inc. (2007) and Applied Earthworks, Inc. (2009) conducted records searches and background research for the TRTP ROW, which includes the disturbance area associated with the installation of the proposed bridge. Results of the record searches indicate that no cultural resources have been previously recorded within the proposed disturbance area.

An archaeological field survey was conducted for the Whirlwind Substation and for the TRTP ROW. The areas comprising the proposed bridge location are covered by these surveys. Cultural resources were not encountered in the vicinity of the proposed bridge during the course of these investigations (Hamad et al. 2009 and Pacific Legacy 2007).

The Paleontological Resources Management Plan (PRMP) Segments 4 through 11 of the TRTP area was prepared by Cogstone Resource Management Inc. (Gust and Scott 2009). Because the surface sediments in the vicinity of the proposed construction activities have unknown sensitivity for paleontological resources, monitoring by a qualified paleontologist is required during initial ground-disturbance activities in native soils.

If previously unidentified archaeological or historic sites, or paleontological resources are discovered during construction activities, work within the vicinity of the discovery will stop immediately and the qualified archaeologist or paleontologist (as applicable) monitoring the discovery will determine a safe distance to redirect/relocate work to prevent further impacts/affects on the resources. SCE will implement appropriate measures to protect any find from adverse effects; the CPUC will be notified by SCE within 24 hours of any find and provide information regarding the location and nature of the discovery and steps taken by SCE to protect the find. Construction affecting the resource will not resume until SCE has received a Notice to Proceed from the CPUC.

Further, if human remains are unearthed during excavation, State Health and Safety Code Section 7050.5 state that " ... no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and distribution pursuant to Public Resources Code Section 5097.98."

No new or substantially different cultural resources impacts would occur and no new mitigation measures would be necessary.

Hydrology and Water Quality

Hydrology and water quality impacts associated with bridge construction would be similar to the impacts described in the Final EIR. The additional approximate 0.13-acre ground disturbance could incrementally increase erosion, which could contribute to the degradation of surface water quality. Erosion impacts would be minimized by the implementation of the existing Erosion Control Plan (Mitigation Measure H-1a) and construction Storm Water Pollution Prevention Plan (SWPPP) (APMs HYD-1 and GEO-3). A specific best management practice would be installation of a temporary silt fence along the east side of the temporary asphalt pavement strip to be installed during bridge construction. Therefore, no new or substantially different hydrology and water quality impacts would occur and no new mitigation measures would be necessary.

Noise

Additional construction would be minimal to construct the aqueduct bridge. SCE has implemented APMs NOI-1 (limit hours and days for construction), NOI-3 (advance notification), NOI-4 (establish toll free numbers), as well as Mitigation Measures N-1a (implement best management practices for construction noise) and N-1b (avoid sensitive receptors during mobile construction equipment use) to reduce the effects

of construction noise on sensitive receptors during Project activities. However, Project impacts remain significant and unavoidable, same as the approved Project. The proposed modification would not introduce any new or substantially different noise impacts and no new mitigation measures would be necessary.

Transportation/Traffic

Construction of the bridge aqueduct would require temporary removal of a portion of the southbound lane of 170th Street West. A temporary asphalt pavement strip would be installed to the east side of 170th Street West and traffic controls would be implemented to maintain uninterrupted use of the roadway. A very slight increase in construction traffic may occur due to the aqueduct bridge installation activities. No additional construction personnel would be required; however, additional construction vehicle trips could be required for material hauling. However, this would be considered minimal when compared to the total trips required for the entire Project. Therefore, no new or substantially different traffic/transportation impacts would occur and no new mitigation measures would be necessary.

Visual Resources

A limited amount of work would be needed for temporary road widening and bridge construction. Additionally, the aqueduct bridge would occur entirely below grade and the surface would be restored to its original condition. Therefore, no change to the visual character of the area and no additional impacts to visual resources are anticipated. No new or substantially different visual impacts would occur and no new mitigation measures would be necessary.

D.2 Issue Areas Where Modification Results in No Change

The proposed modification does not change the characteristics or overall scale of the approved Project and involve only negligible changes to the Project's design. Therefore, potential environmental impacts to agricultural resources, geology, soils and paleontology, hazards and hazardous materials, land use, mineral resources, population/housing, public services, and utilities and service systems, are not expected to change or increase in severity compared to what was described for in the Final EIR of the approved Project.

E. Other CEQA Considerations

E.1 Significant Unavoidable Impacts

The environmental impacts of the approved Project are described in detail in Section 3 (Effectuated Environment and Environmental Consequences) of the Final EIR, and for the proposed modification, in Section D (Evaluation of Modification) of this Addendum. All the significant and unavoidable (Class I) impacts identified for the approved Project, as discussed in Section 5.1.3 (Adverse Environmental Effects that Cannot Be Avoided) of the Final EIR, would be the same as for the approved Project with implementation of the proposed modification.

E.2 Irreversible and Irretrievable Commitment of Resources

As described in the Final EIR, the approved Project would result in the irreversible and irretrievable commitment of resources. The proposed modification, minor in comparison, would be similar to the approved Project. Construction of the proposed modification identified by SCE would result in the same irretrievable commitment of natural resources as described in the Final EIR. Please see Section 5.1.2 of the

Final EIR for a complete discussion of irreversible and irretrievable commitment of resources for the approved Project.

E.3 Growth-Inducing Effects

As described in the Final EIR, the primary purposes of the approved Project are to accommodate potential renewable power generation in the Tehachapi area, prevent overloading of existing transmission facilities, and comply with reliability criteria for transmission planning. The proposed modification serves the same purposes and is minor in comparison to the approved Project. Construction and operation of the proposed modification identified by SCE would not change the growth-inducing effects described for the approved Project in the Final EIR. Please see Section 5.1.4 of the Final EIR for a complete discussion of growth-inducing effects for the approved Project.

E.4 Cumulative Impact Analysis

Construction and operation of the proposed modification identified by SCE would not change the cumulative impacts described for the approved Project in the Final EIR. Please see Section 3 (Cumulative Impact Analysis by Issue Area) of the Final EIR for a discussion of the impacts of the Project that could potentially be “cumulatively considerable” or might be able to combine with similar impacts of other identified projects in a substantial way.

F. References

- Applied EarthWorks, 2009. Confidential Cultural Resources Specialist Report for the Tehachapi Renewable Transmission Project. Submitted to California Public Utilities Commission (Sacramento) and USDA Angeles National Forest (Arcadia).
- Aspen Environmental Group (Aspen). 2009. Final Environmental Impact Report, Tehachapi Renewable Transmission Project. Report prepared for the California Public Utilities Commission. October 2009. Agoura Hills, California.
- California Public Utilities Commission (CPUC). 2009. Decision Granting a Certificate of Public Convenience and Necessity for the Tehachapi Renewable Transmission Project (Segments 4-11). Decision 09-12-044. December 17.
- Gust, S. and Scott, K. 2009. Paleontological Resource Management Plan for Tehachapi Renewable Transmission Project Segments 4 Through 11, Los Angeles, Orange, Riverside, and San Bernardino Counties, California. Prepared by Cogstone Resource Management, Inc., Orange, CA. Prepared for Pacific Legacy, Inc., Santa Cruz, CA.
- Hamad, Jamie M., K. Ross Way and Kari Jones, 2009. Cultural Resources Inventory for the Whirlwind Substation, in Support of the Tehachapi Renewable Transmission Project (TRTP), Southern California Edison Company, Kern County, California. Submitted to Southern California Edison Company, Rosemead, CA.
- Pacific Legacy, 2007. Cultural Resources Inventory of the Southern California Edison Company Tehachapi Renewable Transmission Project, Kern, Los Angeles, and San Bernardino Counties, California. Submitted to Southern California Edison Company, Rosemead, CA.
- Southern California Edison (SCE). 2011. Email communication from Linda C. Zarate of SCE to Jody Fessler of Aspen Environmental Group, “TRTP – Whirlwind Substation – Addendum for Aqueduct Bridge. March 1.

