



Coolwater-Lugo Transmission Project



The **Coolwater-Lugo Transmission Project** proposed by Southern California Edison (SCE) includes new transmission infrastructure along approximately 63 miles of new and existing rights-of-way (ROW) from the existing Coolwater Generation Station Switchyard (Coolwater Switchyard) in Daggett, California, to the existing Lugo Substation in Hesperia, California. The proposed transmission lines (T/Ls) would transverse approximately 15 miles of lands managed by the U.S. Department of Interior Bureau of Land Management (BLM), with the remainder on private or other public lands within San Bernardino County. Approximately 44 miles of the proposed T/L route would parallel or be within existing overhead utility ROWs. To enable construction of the proposed T/L, approximately 43 miles of existing T/L would need to be removed. The project also includes a new substation to support transmission line termination and new telecommunication facilities for a Special Protection System to maintain transmission system reliability.



(Future Simulation) Looking southeast from the Lucerne Valley Cutoff, North Lucerne Valley. (Proposed Segment 2)

SCE has filed an application (No. 13-08-023) with the California Public Utilities Commission (CPUC) for a Certificate of Public Convenience and Necessity for the Coolwater-Lugo Transmission Project. SCE has also submitted a Right-of-Way Application to BLM.

Why is the Coolwater-Lugo Transmission Project Needed?

The CLTP is proposed by SCE to:

- Provide the additional transmission capacity to help alleviate the transmission bottlenecks between the existing Kramer and Lugo Substations, and between the Lucerne Valley area and Lugo Substation;
- Facilitate the interconnection of planned generation projects in the Kramer and Lucerne Valley areas and provide for full delivery of the 275-megawatt Mojave Solar Project, which is currently under construction; and
- Accommodate future load serving (electrical demand) in the High Desert Region, particularly the Town of Apple Valley, and improve transmission system reliability.

What is the Coolwater-Lugo Transmission Project?

The proposed project includes the following route segments (presented from north to south) and components:

- **Segment 12:** Construct about 1.2 miles of double-circuit 220-kV T/L in new ROW from the Coolwater Switchyard south to just past Interstate 40.
- **Segment 1:** Construct about 16.7 miles of double-circuit 220-kV T/L from just south of Interstate 40 south to the intersection of Power Line Road and Camp Rock Road, then crossing under the Los Angeles Department of Water and Power (LADWP) transmission corridor, to parallel the existing T/Ls south-west within new, adjacent ROW to just west of Stoddard Wells Road.
- **Segment 2:** Construct about 11.9 miles of double-circuit 220-kV T/L in new ROW from the LADWP transmission corridor parallel to Stoddard Wells Road, and then southeast parallel to Lucerne Valley Cutoff Road to a point just west of State Route (SR) 247.
- **Segment 3:** Construct about 3.9 miles of double-circuit 220-kV T/L in new ROW from Lucerne Valley Cutoff Road/SR-247 south/southeast, parallel to the west side of SR-247, to just northwest of SR-247/Haynes Road.
- **Segment 5:** Construct about 12.7 miles of double-circuit 220-kV T/L from just northwest of SR-247/Haynes Road south within new ROW until crossing under the existing SCE transmission corridor. Segment 5 would continue southwest within the existing corridor (existing ROW), in place of the Lugo-Pisgah No. 1 line, which would be removed along this portion of the ROW. Segment 5 would continue southwest to just west of the intersection of Desert View Road and Milpas Drive.
- **Segment 5A:** Construct about 0.7 mile of double-circuit 220-kV T/L in new ROW from just west of Desert View Road/Milpas Drive and continuing generally northwest to terminate on the east side of the new Desert View Substation.



(Future Simulation) Desert View Substation facing west from Milpas Road, Apple Valley. (Proposed, Segment 5A)

- **Segment 7:** Construct about 15.7 miles of single-circuit 500-kV T/L (initially operated at 220 kV) extending 0.85 miles in new ROW from the west side of the Desert View Substation southwest to SCE's existing Lugo-Pisgah No. 1 and No. 2 transmission line corridor, and then continuing southwest in this existing ROW replacing the existing Lugo-Pisgah No. 1 and No. 2 single-circuit 220-kV T/Ls.
- **T/L Removals:** About 28 miles of the existing Lugo-Pisgah No. 1 220-kV T/L would be removed from just southwest of the intersection of Haynes Road/SR-247 and the Lugo Substation, and about 16 miles of the existing Lugo-Pisgah No. 2 220-kV T/L would be removed between the Desert View Substation and Lugo Substation.
- **Desert View Substation:** A new 86-acre unstaffed, automated 500/220/115/12-kV substation (at full build-out) would be constructed on an approximately 160-acre site southeast of the Town of Apple Valley and west of Lucerne Valley, which would initially be constructed as a switching station. The existing Lugo-Pisgah No. 1 and No. 2 220-kV lines would terminate into this substation. Full build-out of the substation would occur in the future as dictated by load growth, reliability needs, and generation requests.
- **Telecommunication Lines:** New telecommunication lines would be installed between the Apple Valley Substation and the new Desert View Substation (approximately 11 miles) and between the Gale Substation (located near Daggett) and the Pisgah Substation (located between Newberry Springs and Ludlow) (approximately 29 miles). The majority of the cable would be installed on existing poles, which would require new cross arms.



(Future Simulation) Looking southwest from Kimball Street, Hesperia. (Proposed, Segment 7)

What are the Alternatives to the Coolwater-Lugo Transmission Project?

In its applications to the CPUC and BLM, SCE identified seven alternative T/L routes, as well as an alternate substation location. Other alternatives may be considered and developed as part of the environmental review process. Additionally, the CPUC and BLM will consider a No Project/No Action Alternative.

- **Segments 11, 9, 8:** Combined, these segments provide an alternate to Segment 1. This alternative route heads west from south of Interstate 40 (Segment 12) through the Marine Corps Logistics Base (MCLB) Barstow and then southwest parallel to SR-247 and then parallel to Stoddard Wells Road until Stoddard Valley Road. About 20.5 miles of double-circuit 220-kV T/L would be constructed.



(Future Simulation) Looking east from Bowden Ranch Road in Arrastrae Canyon, Lucerne Valley. (Alternative, Segment 6)

- **Segment 10:** This is an alternative to Segment 9, and would proceed farther south before heading west to avoid crossing the MCLB. About 7.6 miles of double-circuit 220-kV T/L would be constructed, which is one mile less than Segment 9.
- **Segment 4:** This is an alternative to Segment 3. Segment 4 proceeds farther west to avoid paralleling SR-247. About 4.3 miles of double-circuit 220-kV T/L would be constructed.
- **Segment 5B and Alternate Desert View Substation:** SCE identified an alternate approximately 150-acre site immediately west of the proposed site for the Desert View Substation. Segment 5B is an alternative to Segment 5A and provides a minor reroute of the T/L to the alternate substation site. About 1.9 miles of double-circuit 220-kV T/L would be constructed and terminate on the east side of the alternate substation site.
- **Alternative Segment 6:** This segment is an alternative to Segment 7, and would head south from the Alternate Desert View Substation and then generally west parallel to SCE's existing ROW located south of the Ord Mountains. About 19.7 miles of single-circuit 500-kV T/L would be constructed.

For more information about the Coolwater-Lugo Transmission Project:

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Project Fax and Voicemail: (888) 423-2220

CPUC Project Website:

BLM Project Website:

www.cpuc.ca.gov/Environment/info/aspenc/ctlp/ctlp.htm

www.blm.gov/ca/st/en/fo/barstow/renewableenergy/coolwater_lugo.html