

# Alternative 1

## Partial Undergrounding of Antelope-Pardee Transmission Line



*Del Sur Ridge, Angeles National Forest*

### Description

The proposed 500-kV transmission line would be constructed underground in two specific high-impact segments: along Del Sur Ridge in the Angeles National Forest (ANF) (Mile 11.0 to 15.0), and within the City of Santa Clarita (Mile 22.7 and 26.2). Underground construction was considered due to visual impacts of overhead lines, as well as impacts to biological resources and Forest Management activities such as wildland fire suppression.

The technology that would be used for the underground portions of this alternative would consist of Solid Dielectric Cables (XLPE) installed in concrete-encased ductbanks. A set of 3 splicing vaults, one for each set of cables, would be buried every 1,200 to 1,800 feet along the underground portions. Each vault would measure approximately 10 feet by 10 feet by 35 feet, or 3,500 cubic feet. A transition station would be required at each end of each underground segment in order to transfer the transmission line from overhead to underground, and from underground back to overhead. Each transition station would be approximately 80 feet high and require an area of 2 to 3 acres.

### Location

As shown in the figure on the back of this page, this alternative would generally follow the same route as the proposed Project, with the exception of the underground segment in Santa Clarita, which would occur within city streets. In Santa Clarita, at Mile 22.7, the overhead transmission line would exit the existing Pardee-Vincent corridor and tie into a new transition station, which would be located west of the corridor on the east side of San Francisquito Canyon Road, near Copper Hill Drive. The transmission line would exit the transition station underground and travel south along San Francisquito Canyon, west on Copper Hill Drive, and then west on Newhall Ranch Road to the Pardee Substation (Mile 26.2).

### Key Environmental Issues






- **Air Quality** – Significantly higher construction emissions than all the other alternatives. Only alternative to have significant localized impacts to the underground construction activities occurring so close to sensitive receptors.
- **Biological Resources** – Longest period of construction disturbance to plant and wildlife communities. Large areas of disturbance and increased levels of construction activity increasing the potential for the introduction of exotic weeds and would have the greatest impact to Management Indicator Species in the ANF.
- **Geology, Soils, Paleontology** – Greatest potential for liquefaction related damage; slightly greater potential to damage or destroy of significant fossils; and additional impacts not found with the other alternatives.
- **Public Health and Safety** – Repair of underground facilities could result in the need to re-trench and excavate, thereby re-introducing the potential for accidental release of hazardous materials.
- **Forest Management Activities** – Underground portion in the ANF benefits firefighter safety and fire prevention activities.
- **Land Use and Public Recreation** – Permanent loss of OHV routes on Del Sur Ridge.
- **Traffic and Transportation** – Underground construction would increase impacts more than all other alternatives.
- **Utilities and Service Systems** – Would generate the most waste and have the greatest water requirements.
- **Visual Resources** – Underground portion in the ANF would create visually prominent, permanent landform and vegetation disturbances on Del Sur Ridge, resulting in visually unacceptable modifications to the National Forest landscape.

#### Summary Facts

- **Total miles: 26.2 (12.6 on NFS lands)**
- **Single-circuit 500-kV towers: 86**
- **Double-circuit 500-kV towers: 1 existing**
- **Miles of new ROW: 6.3**
- **Underground across Del Sur Ridge (4.0 miles) and in Santa Clarita (3.5 miles).**

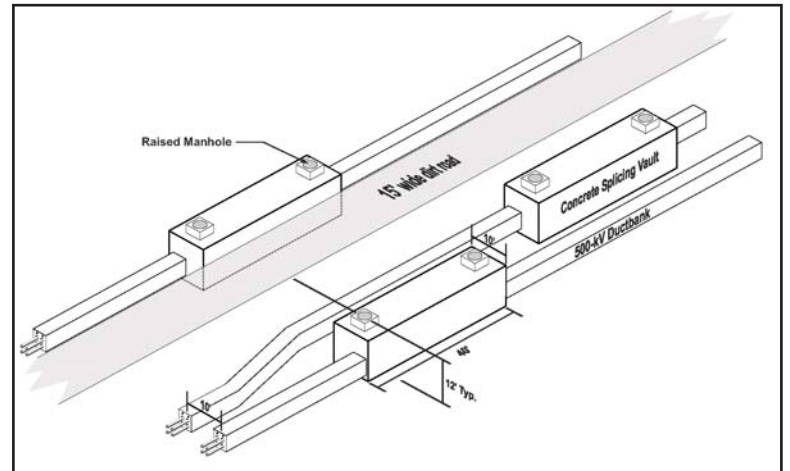
# Alternative 1: Partial Underground of Antelope-Pardee Transmission Line

**Legend**

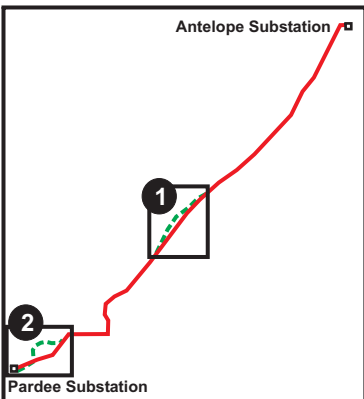
-  Mile Marker
-  Proposed Project
-  Alternative 1
-  Underground
-  Transition Station



Looking north from Bouquet Canyon Road. These existing 66-kV towers would be removed and the new underground portion would not be seen.



Underground construction vaults



Simulation of Prototypical Transition Station