11. Alternative 7 (66-kV Subtransmission): Impacts and Mitigation Measures

11.1 Direct and Indirect Effects Analysis

Alternative 7 is described in Section 1.2.7. This alternative changes the amount of construction method and the routing in Segments 7 and 8, by addition 66-kV construction and wreck out requirements. This will impact emissions within the SoCAB from 2009 through 2013. This alternative would cause construction activities similar to those of the proposed Project, except it would:

For Option 1

- Would require the underground construction of approximately 3,300 feet and another 6,000 feet of 66 kV line in Segment 7.
- Would require the construction of approximately 1.19 miles of new overhead 66 kV poles/line.
- Would utilize the existing infrastructure of approximately 0.43 miles between the San Gabriel Junction and Lincoln Avenue
- Would require the demolition of the existing 66 kV poles/lines being replaced in Segment 7 and 8.

For Option 2

- Would require the underground construction of approximately 3,300 feet and another 6,000 feet of 66 kV line in Segment 7.
- Would require the construction of approximately 1.32 miles of new overhead 66 kV poles/line.
- Would utilize the existing infrastructure of approximately 0.43 miles between the San Gabriel Junction and Lincoln Avenue
- Would require the demolition of the existing 66 kV poles/lines being replaced in Segment 7 and 8.

Since the lengths of 66 kV line for the two options are only different by 0.13 miles, the infrastructure required for Option 1 and Option 2 would basically be the same. The maximum daily construction emissions and annual emissions for this alternative are different from Alternative 2 in the SCAQMD jurisdictions. Appendix A provides the emission assumptions and detailed emission calculations for this alternative and shows a comparison with the annual emissions estimated for Alternative 2.

Regional Emission Thresholds (Criterion AIR1)

Construction emissions would exceed the SCAQMD, AVAQMD, and/or KCAPCD regional emission thresholds (Impact AQ-1). Alternative 7 is the same as Alternative 2 for the KCAPCD and AVAQMD jurisdictions. While there are incremental emission increases for Alternative 7, they are not forecast to occur at the same time as the previously determine Alternative 2 worst-case day or create a new worst day.

Therefore, the SCAQMD, and other jurisdiction, maximum daily emissions are identical to those of Alternative 2 (see Table 6-1). Accordingly, this alternative has significant and unavoidable (Class I) regional air quality impacts for SCAQMD and AVAQMD. The recommended mitigation measures for Impact AQ-1 are identical to those recommended for Alternative 2 (See Section 6.1) that provide maximum feasible mitigation for this Class I impact.

Operating emissions would not exceed the SCAQMD, AVAQMD, and/or KCAPCD regional emission thresholds (Impact AQ-2). Alternative 7 would have essentially identical direct and identical indirect operating emissions as Alternative 2. Therefore, like Alternative 2, due to the Project's indirect emission reductions this alternative's operating emissions would provide a beneficial regional operating emissions impact (Class IV).

SCAQMD Localized Significance Thresholds (Criterion AIR2)

Construction of the Project would expose sensitive receptors to substantial pollutant concentrations (Impact AQ-3). The 66-kV construction proposed under Alternative 7 does not have higher localized emission potentials from that already evaluated under Alternative 2. Therefore, this alternative, like Alternative 2, will have significant and unavoidable (Class I) temporary air quality impacts to sensitive receptors in SCAQMD jurisdiction.

Operation of the Project would expose sensitive receptors to substantial pollutant concentrations (Impact AQ-4). Alternative 7 would have essentially identical direct and identical indirect operating emissions as Alternative 2. Therefore, like Alternative 2, this alternative's operating emissions would have a less-than-significant impact (Class III) to local sensitive receptors.

Air Toxic Contaminant Emissions (Criterion AIR3)

Construction or operation of the Project would generate toxic air contaminant emissions that would exceed SCAQMD risk thresholds (Impact AQ-5). Alternative 7 does not, with the exception of the additional 66-kV construction activities, impact the Project's construction methods or direct operating emissions within SCAQMD jurisdiction, and does not impact emissions in the AVAQMD and KCAPCD jurisdictions. Additionally, the differences in the Project's construction for this alternative are fairly minor and occur over a limited period of time that would further reduce the long term chronic exposures (carcinogenic and non-carcinogenic exposures) to DPM and other air toxic contaminants. Therefore, like Alternative 2, the risk from Project construction at any given receptor area is expected to be below the SCAQMD significance thresholds so the Project would have less-than-significant (Class III) health risk impacts.

Federal General Conformity Rule (Criterion AIR4)

The Project would not conform to Federal General Conformity Rules (Impact AQ-6). Alternative 7 does not change the emissions in the ANF. The revisions to the construction requirements within USACE lands due to this alternative are minimal and would not significantly change the overall annual federal lands annual emissions totals. Therefore, like Alternative 2 this alternative would conform to the SIP and would have a less-than-significant impact (Class III).

Odors (Criterion AIR5)

Project would create objectionable odors (Impact AQ-7). Alternative 7 would have essentially identical construction and operation odor potential as Alternative 2. Therefore, like Alternative 2, this alternative would have less-than-significant (Class III) odor impacts.

Angeles National Forest Strategy Conformance (Criterion AIR6)

The Project would not conform to Angeles National Forest air quality strategies (Impact AQ-8). Alternative 7 does not change the construction requirements and methods within the Angeles National Forest from those in Alternative 2. Therefore, like Alternative 2, with the incorporation of the air quality Mitigation Measures AQ-

1a through AQ-1j, the air quality strategy would be compliant with ANF air quality strategies and the Project impacts would be less than significant (Class II).

Conformance with Applicable Air Quality Management Plans (Criterion AIR7)

The Project would not conform with applicable Air Quality Management Plans (Impact AQ-9). Alternative 7 has identical impacts, and recommended mitigation measures, as Alternative 2 in respect to conforming to AQMPs. Therefore, like Alternative 2, with incorporation of mitigation measures AQ-1a, AQ-1b, and AQ-1d, this alternative would be consistent with the currently approved Air Quality Management Plans and would have a less-than-significant impact (Class II).

Climate Change Impacts (Criterion AIR8)

Emissions would contribute to climate change (Impact AQ-10). The GHG emissions estimated for construction are slightly higher for this alternative than for Alternative 2 (Tables 6-5, and 6-6); however, due to the very large indirect emissions reductions would have the same overall significant Project GHG emission reduction. Therefore, this alternative has essentially the identical impacts as the proposed Project and would provide a beneficial GHG emissions impact (Class IV).

11.2 Cumulative Effects Analysis

Alternative 7 does not significantly change the construction route; therefore, it has the same general geographic extent, existing cumulative conditions, reasonably foreseeable future projects and changes, and impacts as Alternative 2. Therefore, Alternative 7 would have the same cumulative impact levels as Alternative 2 (see Section 6.2).