

SECTION 8.0 UNAVOIDABLE SIGNIFICANT ENVIRONMENTAL IMPACTS

Tehachapi Renewable Transmission Project

8.1 INTRODUCTION

This section discusses California Environmental Quality Act (CEQA) Guidelines Section 15126(b) requirements for addressing unavoidable significant environmental effects of a proposed project.

8.2 DEFINITION

A project would result in unavoidable significant environmental effects if the impacts resulting from the project (both construction and operation-related impacts) would be significant and for which no feasible mitigation or only partial mitigation is feasible. Approval and implementation of a project that involves unmitigable significant effects typically require a Statement of Overriding Considerations by the Lead Agency (i.e., California Public Utilities Commission [CPUC]) for CEQA compliance.

8.3 THE PROJECT

As described in Section 4.0, the proposed Tehachapi Renewable Transmission Project (TRTP) would involve multiple potentially significant impacts. However, with the implementation of Applicant Proposed Measures (APMs) which have been incorporated into the Project design (refer to Section 4.0) and where specific proposed mitigation measures are needed (e.g., for Biological Resources and Aesthetic Resources), all potentially significant impacts associated with implementation of the TRTP would be avoided and reduced to less-than-significant levels with the exception of the following resource areas: Aesthetic Resources and Air Quality.

8.3.1 Aesthetic Resources

As discussed in Section 4.2 (Aesthetic Resources), the proposed TRTP would result in unavoidable significant impacts (under CEQA) and adverse effects (under National Environmental Policy Act [NEPA]) to aesthetic resources. A list of identified potential unavoidable significant impacts and adverse effects to aesthetic resources by TRTP segment and key observation point (KOP) are provided in Table 8.3-1.

8.3.1.1 Construction Phase

With implementation of APMs for aesthetic resources (e.g., APMs AES-12, -15, -16, and -17; refer to Section 4.2.5), construction activities associated with TRTP Segments 4 through 11 would not result in unavoidable significant impacts to aesthetic resources (see Section 4.2, Aesthetic Resources).

**TABLE 8.3-1
IDENTIFIED UNAVOIDABLE SIGNIFICANT AESTHETIC IMPACTS AND
ADVERSE EFFECTS BY SEGMENT AND KOP**

Segment and KOP	Location/View Represented	Jurisdiction	Significance Under CEQA/ Adverse Effect Under NEPA ¹
Segment 6			
KOP-5.1	Angeles Forest Highway at Entrance Sign Represents foreground to middleground views toward the Segment 6 alignment from the lower portion of the Angeles Forest Highway and from residences in private in-holdings in this portion of the ANF.	Angeles National Forest (ANF)	Adverse ¹
KOP-5.2	Angeles Forest Highway and Aliso Canyon Road Represents views toward the Segment 6 alignment from this portion of the Angeles Forest Highway where there is a road crossing, as well as from residences located in nearby private in-holdings.	ANF	Adverse ¹
KOP-6.2	Mill Creek Summit Represents views toward the Segment 6 alignment from the recreation facilities at Mill Creek Summit, and from nearby areas of the Pacific Crest Trail and Angeles Crest Highway.	ANF	Adverse ¹
KOP-7.1	Upper Big Tujunga Road Represents foreground to middleground views toward the Segment 6 alignment from southbound Big Tujunga Canyon Road.	ANF	Adverse ¹
KOP-7.2	Vetter Mountain Trail Trailhead Represents views toward the Segment 6 alignment from the parking lot for the Vetter Mountain Lookout Trail, from the Vetter Mountain Lookout Trail itself, from the lookout, and from the Charlton Flats Picnic Area.	ANF	Adverse ¹
KOP-7.3	Angeles Crest Highway West of Shortcut Saddle Represents middleground views toward the Segment 6 alignment from the Angeles Crest Scenic Byway.	ANF	Adverse ¹
KOP-7.4	Silver Moccasin Trail Represents views toward the Segment 6 alignment from the Shortcut Saddle parking lot and picnic area, the Silver Moccasin Trail, the Shortcut Canyon Trail, and the Rincon-Shortcut Off-Highway Vehicle Route.	ANF	Adverse ¹

SECTION 8.0

UNAVOIDABLE SIGNIFICANT ENVIRONMENTAL IMPACTS

Tehachapi Renewable Transmission Project

**TABLE 8.3-1 (CONTINUED)
IDENTIFIED UNAVOIDABLE SIGNIFICANT IMPACTS AND ADVERSE
EFFECTS BY SEGMENT AND KOP**

Segment and KOP	Location/View Represented	Jurisdiction	Significance Under CEQA/ Adverse Effect Under NEPA ¹
Segment 7			
KOP-9.2	Royal Oaks/Tocino Intersection Represents upslope near-foreground to background views toward the Segment 7 alignment from residential neighborhoods in the flat areas of Duarte.	Duarte	Significant
KOP-10.2	Linard/Kayann Intersection Represents near-foreground views toward the Segment 7 alignment from an immediately adjacent residential area in South El Monte.	South El Monte	Significant
Segment 8			
KOP-14.1	Rose Hills Memorial Park Represents middleground views toward the Segment 8 alignment from the Rose Hills Memorial Park.	Unincorporated Los Angeles County	Significant
KOP-16.1	Highway 57 Represents middleground views toward the Segment 8 alignment from northbound Highway 57, an adopted California Scenic Route.	Unincorporated Los Angeles County	Significant
KOP-16.2	Crooked Creek Drive Representative of foreground views toward the Segment 8 alignment from residential neighborhoods in Diamond Bar.	Diamond Bar	Significant
KOP-17.1	Avenida Anita/Avenida Compadres Intersection Representative of foreground views toward the Segment 8 alignment from residential neighborhoods in the western area of Chino Hills.	Chino Hills	Significant
KOP-17.2	Coral Ridge Park Representative of foreground to distant views of the Segment 8 alignment from open space areas in the hillier parts of Chino Hills.	Chino Hills	Significant
Segment 11			
KOP-6.1	Pacific Crest Trail near Big Buck Camp This is the foreground view at the point that the Segment 11 alignment crosses the Pacific Crest Trail.	ANF	Adverse ^{1,2}

TABLE 8.3-1 (CONTINUED)
IDENTIFIED UNAVOIDABLE SIGNIFICANT IMPACTS AND ADVERSE EFFECTS BY SEGMENT AND KOP

Segment and KOP	Location/View Represented	Jurisdiction	Significance Under CEQA/ Adverse Effect Under NEPA ¹
KOP-7.5	Big Tujunga Canyon Dam Overlook Representative of views toward the Segment 11 alignment from visitor areas at the Big Tujunga Dam.	ANF	Adverse ¹
KOP-8.2	Crosstown Trail near the Gould Substation Representative of views toward the Segment 11 alignment from trails and other visitor areas at the base of the San Gabriel Mountain foothills.	ANF	Adverse ¹

¹ Determination of adverse effect under NEPA applies to portions of proposed Project on U.S. Forest Service Land only.

² Also found to result in potentially significant impacts under CEQA when evaluated using Federal Highway Administration (FHWA) methodology; however, with implementation of proposed mitigation measure (MM) AES-11-1, this impact would be reduced to less than significant (under CEQA).

8.3.1.2 Operation Phase

Implementation of the proposed TRTP would result in unavoidable significant impacts to aesthetic resources during operation due to implementation of Segments 7 and 8 for specific KOPs when evaluated under CEQA. In addition, implementation of Segments 6 and 11 would potentially result in adverse effects to aesthetic resources in the Angeles National Forest (ANF) when evaluated under the National Environmental Policy Act (NEPA) and applicable U.S. Forest Service Scenic Integrity Objectives (SIOs) specified in the ANF Land Management Plan (LMP).

The unavoidable significant impact findings (using CEQA criteria) are considered to be unmitigable to less-than-significant levels. Implementation of both Segment 6 and Segment 11 on the ANF would result in less-than-significant impacts at all but one of the KOPs when the view was evaluated under CEQA. Implementation of Segment 11 near KOP 6.1 would result in an unavoidable significant impact under CEQA and the impact is unmitigable to a level of less than significant. Implementation of both Segment 6 and Segment 11 on the ANF and the existing transmission corridor would continue to potentially be inconsistent with the ANF SIOs and, therefore, the proposed Project would result in a significant unavoidable adverse effect under NEPA. Certain portions of the proposed TRTP along Segments 6 and 11 (which are located in ANF designated utility corridors) may be inconsistent with the ANF LMP; however, the U.S. Forest Service may identify mitigation measures that would make the TRTP consistent with the LMP. Additionally, the ANF has the ability to reduce the

SECTION 8.0 UNAVOIDABLE SIGNIFICANT ENVIRONMENTAL IMPACTS

Tehachapi Renewable Transmission Project

identified inconsistencies or choose to amend the LMP to reduce the inconsistencies as part of the forthcoming NEPA Environmental Impact Statement (EIS) for the TRTP.

A summary of identified unavoidable significant impacts under CEQA and unavoidable adverse effects under NEPA are presented in Table 8.3-1; refer to Section 4.2 (Aesthetic Resources) and Appendix F for more information.

8.3.2 Air Quality

8.3.2.1 Construction Phase

To determine whether implementation of the proposed Project would violate any air quality standards or contribute substantially to an existing or projected air quality violation, a worst-case scenario approach (i.e., it was assumed that all construction phases could occur and overlap on any particular day) was taken to ensure that all potential air quality impacts were assessed. As such, emissions occurring during peak construction activities were quantified and used to determine air quality impacts. Overall Project construction emissions (i.e., considering overlapping emissions, by air basin, for all applicable TRTP segments) are presented in Table 8.3-2.

As discussed in Section 4.3 (Air Quality), the proposed TRTP would result in short-term, unavoidable significant effects to air quality during the construction of several TRTP segments in the South Coast Air Basin (SCAB) due to exceedences of the South Coast Air Quality Management District (SCAQMD) daily emission threshold limits. The following TRTP segments would exceed SCAQMD daily emission thresholds, as indicated: Segment 6 (NO_x), Segment 7 (NO_x), Segment 8 (NO_x and VOC), Segment 9 (NO_x and PM₁₀), and Segment 11 (NO_x, VOC, and CO). These impacts are considered to be individually significant and unavoidable.

To assess the potential significance of air quality impacts within each air basin for the overall proposed TRTP, daily and annual estimated construction emissions were summed for TRTP segments located in the same air districts and air basins and compared to the applicable air district thresholds. A summary of the impact findings relative to unavoidable significant air quality effects during construction follows.

As shown in Table 8.3-2, annual construction emissions for the overall TRTP would exceed the Antelope Valley Air Quality Management District's (AVAQMD's) significance thresholds for NO_x in year 2010 and PM₁₀ in years 2010, 2011, and 2012 and, therefore, would be considered to have significant air quality impacts. Similarly, the comparison of the peak daily construction emissions with the SCAQMD significance thresholds shows that all pollutants exceed the thresholds with the exception of SO₂. The implementation of APMs

**TABLE 8.3-2
OVERALL TRTP CONSTRUCTION EMISSION/AIR DISTRICT
REGIONAL EMISSION THRESHOLD COMPARISON**

Air District		Peak Daily and Annual Construction Emissions					
		NO _x	VOC	CO	PM ₁₀	PM _{2.5}	SO ₂
KCAPCD	2009 Annual Emissions (tons/yr) ¹	4.47	0.59	2.88	2.06	0.59	0.01
	2010 Annual Emissions (tons/yr) ²	9.19	1.42	6.61	6.23	1.66	0.01
	2011 Annual Emissions (tons/yr) ³	16.85	3.22	17.25	9.88	2.86	0.03
AVAQMD	2009 Annual Emissions (tons/yr) ⁴	15.16	1.96	9.07	8.27	2.27	0.02
	2010 Annual Emissions (tons/yr) ⁵	26.76	3.76	17.30	25.66	6.37	0.04
	2011 Annual Emissions (tons/yr) ⁶	9.95	1.69	8.38	17.98	4.18	0.02
	2012 Annual Emissions (tons/yr) ⁷	6.22	1.16	5.93	15.01	3.42	0.02
	2013 Annual Emissions (tons/yr) ⁸	5.15	0.93	4.77	12.32	2.80	0.02
	AVAQMD Significance Annual Thresholds (tons/yr)	25	25	100	15	No Threshold	25
	Exceed Thresholds?	Yes	No	No	Yes	No	No
SCAB	2009 Daily Emissions (lbs/day) ⁹	1,199.41	191.56	968.74	208.41	98.69	3.65
	2010 Daily Emissions (lbs/day) ¹⁰	1,142.80	182.37	925.64	205.33	95.64	3.66
	2011 Daily Emissions (lbs/day) ¹¹	1,241.91	182.37	1,065.61	362.35	134.08	3.99
	2012 Daily Emissions (lbs/day) ¹²	1,682.31	246.97	1,309.96	368.84	147.92	6.70
	2013 Daily Emissions (lbs/day) ¹³	959.38	132.49	720.52	238.60	87.62	4.51
	SCAQMD Significance Daily Thresholds (lbs/day)	100	75	550	150	55	150
	Exceed Thresholds?	Yes	Yes	Yes	Yes	Yes	No

¹ Emissions are from construction activities occurring in year 2009 from Segment 4 in Kern County Air Pollution Control District (KCAPCD) jurisdiction (MDAB region).

² Emissions are from construction activities occurring in year 2010 from Segments 4 and 9 in KCAPCD jurisdictions (MDAB region).

**TABLE 8.3-2 (CONTINUED)
OVERALL TRTP CONSTRUCTION EMISSION/AIR DISTRICT
REGIONAL EMISSION THRESHOLD COMPARISON**

- ³ Emissions are from construction activities occurring in year 2011 from Segments 4, 9, and 10 in KCAPCD jurisdictions (MDAB region).
- ⁴ Emissions are from construction activities occurring in year 2009 from Segments 4 and 6 in AVAQMD jurisdictions (MDAB region).
- ⁵ Emissions are from construction activities occurring in year 2010 from Segments 4, 5, 6, and 9 in AVAQMD jurisdictions (MDAB region).
- ⁶ Emissions are from construction activities occurring in year 2011 from Segments 4, 5, 6, and 9 in AVAQMD jurisdictions (MDAB region).
- ⁷ Emissions are from construction activities occurring in year 2012 from Segments 6, 9, and 11 in AVAQMD jurisdictions (MDAB region).
- ⁸ Emissions are from construction activities occurring in year 2013 from Segments 9 and 11 in AVAQMD jurisdiction (MDAB region).
- ⁹ Emissions are from construction activities occurring in year 2009 from Segments 6, 7, and 9 in SCAQMD jurisdictions (SCAB region).
- ¹⁰ Emissions are from construction activities occurring in year 2010 from Segments 6, 7, and 8 in SCAQMD jurisdictions (SCAB region).
- ¹¹ Emissions are from construction activities occurring in year 2011 from Segments 6, 7, 8, and 9 in SCAQMD jurisdictions (SCAB region).
- ¹² Emissions are from construction activities occurring in year 2012 from Segments 6, 8, 9, and 11 in SCAQMD jurisdictions (SCAB region).
- ¹³ Emissions are from construction activities occurring in year 2013 from Segments 9 and 11 in SCAQMD jurisdictions (SCAB region).

SECTION 8.0 UNAVOIDABLE SIGNIFICANT ENVIRONMENTAL IMPACTS

Tehachapi Renewable Transmission Project

identified in Section 4.4.5 would reduce overall emissions, but air quality impacts would remain significant and unavoidable during peak-year construction in both air basins, although impacts would be short-term. Construction of the entire TRTP could potentially contribute to existing violations of O₃ and PM₁₀ air quality standards. Therefore, the construction of the TRTP would have certain unavoidable significant impacts on air quality.

If the Project were to cause annual emissions that exceed the General Conformity Rule (GCR) *DeMinimis* thresholds, SCE would be required to prepare a comprehensive Air Quality Conformity Analysis and Determination. It should be noted that the GCR *DeMinimis* thresholds are for entire air basins and are not for individual air districts. Therefore, to determine conformity requirements for Mojave Desert Air Basin (MDAB), construction emissions generated in Kern County (i.e., Kern County Air Pollution Control District [KCAPCD] jurisdiction) are added to emissions generated in northern Los Angeles County (i.e., AVAQMD jurisdiction). Based on the current proposed Project schedule, the maximum annual construction emissions for the proposed Project would occur in 2010 within the MDAB and in the SCAB. Annual construction emissions for year 2010 in the MDAB and the SCAB were compared to their respective GCR *DeMinimis* thresholds and are provided in Table 8.3-3.

**TABLE 8.3-3
PROPOSED PROJECT EMISSIONS/GENERAL
CONFORMITY EMISSIONS THRESHOLD COMPARISON**

Air Basin		Peak Year Construction Emissions			
		NO _x	VOC	CO	PM ₁₀
MDAB	2010 Emissions (tons/yr)	35.94	5.18	23.91	31.89
	Applicability Trigger (tons/yr)	100	100	No Threshold	100
	Exceed Thresholds?	No	No	No	No
SCAB	2012 Emissions (tons/yr)	27.39	4.48	23.52	19.85
	Applicability Trigger (tons/yr)	25	25	100	70
	Exceed Thresholds?	Yes	No	No	No

Table 8.3-3 shows that the maximum annual construction emissions generated within the MDAB in year 2010 are well below the GCR *DeMinimis* thresholds, and are therefore considered to be consistent with the State Implementation Plan (SIP). However, annual emissions generated during the peak construction year within the SCAB exceed the NO_x thresholds by 9.6 percent and are under the thresholds for all other pollutants. To ensure the proposed Project conforms to the State Implementation Plan (SIP), NO_x emissions would have to be reduced by at least approximately 10 percent. Construction emissions were

SECTION 8.0 UNAVOIDABLE SIGNIFICANT ENVIRONMENTAL IMPACTS

Tehachapi Renewable Transmission Project

estimated based on a worst-case scenario (e.g., all construction activities were assumed to overlap throughout the entire year), which is unlikely. NO_x emissions are directly correlated with the number and type of equipment used and operating hours. Based on this consideration, NO_x emissions could be reduced through various methods such as reducing the quantity of equipment operating at any one time, extending the construction time frame, and/or scheduling equipment to reduce duplicate equipment operating for the same purpose during the construction phase. The detailed annual emissions calculations and associated assumptions used in the calculations are provided in Appendix G. Emissions generated from the construction and operation of the proposed TRTP would not be expected to expose nearby sensitive receptors to substantial pollutant concentrations or odor impacts.

Although the worst-case daily TRTP construction emissions would exceed applicable daily emission thresholds in the SCAQMD and potentially exceed annual NO_x thresholds within the SCAB, SCE would implement air quality-related APMs (refer to Section 4.4.5) that would minimize Project-related emissions to the extent feasible. Construction of the proposed TRTP would significantly impact air quality in the short term, however in the long term would be expected to have beneficial impacts on air quality due to the facilitation of renewable wind farm electrical generation of up to 4,500 megawatts.

8.3.2.2 Operation Phase

All operation-related air quality effects of the proposed TRTP are considered to be less than significant, and thus are not discussed further herein.

SECTION 8.0 UNAVOIDABLE SIGNIFICANT ENVIRONMENTAL IMPACTS
Tehachapi Renewable Transmission Project

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