D.11 Air Quality

This section addresses potential air quality impacts resulting from construction and operation of the Proposed PROJECT. Section D.11.1 provides a description of the environmental setting/affected environment for air quality in the project study area. Applicable air quality management plans, regulations, and requirements are discussed in Section D.11.2. An analysis of the Proposed PROJECT impacts/environmental effects and a discussion of mitigation are provided in Section D.11.3. An analysis of Proposed PROJECT alternatives is provided in Sections D.11.4 through D.11.7. Section D.11.8 provides mitigation monitoring, compliance, and reporting information. Section D.11.9 addresses residual effects of the project and Section D.11.10 lists the references cited in this section.

D.11.1 Environmental Setting/Affected Environment

Methodology and Assumptions

This section provides a description of existing air quality conditions including regional climate and meteorological conditions, ambient air quality, criteria pollutants, toxic air contaminants, types of emission sources, and sensitive receptors as relevant within the East County (ECO) Substation, Tule Wind, and Energia Sierra Juarez U.S. Generator-Tie (ESJ Gen-Tie), as well as the Campo, Manzanita, and Jordan wind energy project areas. The Campo, Manzanita, and Jordan wind energy projects are being analyzed at a program level in this EIR/EIS as no site-specific survey data is available. Due to the close proximity of these wind energy projects to the ECO Substation, Tule Wind, and ESJ Gen-Tie projects, a similar air quality setting is assumed.

Baseline information reviewed for this section includes San Diego Gas ~~and~~ & Electric's (SDG&E's) Proponent's Environmental Assessment (PEA) for the East County Substation Project (SDG&E 2009a), California Public Utilities Commission's (CPUC's) and Bureau of Land Management's (BLM's) Draft Environmental Impact Report/Environmental Impact Statement (EIR/EIS) and Proposed Land Use Amendment for the Sunrise Powerlink Project (CPUC and BLM 2008a), and CPUC's and BLM's Recirculated Draft EIR/Supplemental Draft EIS and Proposed Land Use Amendment for the Sunrise Powerlink Project (CPUC and BLM 2008b). Ambient air quality data and statistics were obtained from the California Air Resources Board's (CARB's) iADAM Air Quality Data Statistics website (CARB 2009a, 2009b, 2011).

D.11.1.1 General Overview

This section presents a discussion of the regional climate and meteorological conditions and ambient air quality in the project area.

Climate and Meteorology

Climate and air quality are determined by the geographic location, topography, and urbanization of an area. This section describes pertinent characteristics of the air basin and provides an overview of the physical conditions affecting pollutant dispersion in the PROJECT area.

Climate

For the purposes of air quality classification, the State of California has divided the state into meteorologically and geographically similar areas called air basins. The three projects are located in southeastern San Diego County, which lies within the San Diego Air Basin (SDAB). The regional climate of SDAB is primarily Mediterranean in character, consisting of dry, hot summers and cool, moderately wet winters. The local climate in southeastern San Diego County, which is primarily desert, consists of dry, hot summers (temperatures reaching 120° Fahrenheit (F)) and milder winters (daytime temperature in the 80s). The average summertime high temperature in Jacumba is approximately 90°F, although record highs have approached 110°F in July. The average wintertime low temperature is approximately 33°F, although record lows have approached 10°F in January. Average precipitation in the Jacumba area is approximately 9 inches per year, with the bulk of precipitation falling during January and February.

The regional climate and transportation patterns along Interstate 8 (I-8) contribute to the levels of ozone, particulate matter (PM), and other air quality pollutants in the Proposed PROJECT areas. During summer months, ozone from San Diego's coastal and urban airshed is typically transported inland by way of warm temperatures and westerly winds. Summer months are also the months that generally experience high levels of PM.

Meteorological Influences on Air Quality

Vertical dispersion of air pollutants in the project area is often hampered by the presence of a persistent temperature inversion in the atmospheric layers of the earth's surface. The net input of cumulative pollutants into the atmosphere from mobile and stationary sources does not vary substantially by season. The duration of an inversion layer increases the concentration of pollutants in the inversion layer and the air mass trapped beneath the inversion layer. Strong winds or daytime warming of the surface air layer is required to disperse the pollutants horizontally. During the winter, motor vehicle emissions such as carbon monoxide (CO) and oxides of nitrogen (NO_x) are of concern because of low inversions and stagnant air that prevent pollutants from dispersing. Ozone (O_3) is less prevalent in the winter due to the lack of intense sunlight needed to produce it from its chemical precursors, volatile organic compounds (VOCs) and NO_x, with higher O_3 levels occurring between the late spring and early fall.

Existing Air Quality

Criteria Air Pollutants

Air pollution is a general term that refers to one or more chemical substances that degrade the quality of the atmosphere. Individual air pollutants may adversely affect human or animal health, reduce visibility, damage property, and reduce the productivity or vigor of crops and natural vegetation.

CARB, with assistance from the San Diego Air Pollution Control District (SDAPCD), compiles inventories and projections of emissions of the major pollutants and monitors air quality conditions. Air quality conditions are tracked for "criteria air pollutants" and "toxic air contaminants." Criteria air pollutants refer to a group of pollutants for which CARB or the U.S. Environmental Protection Agency (EPA) has adopted health-based ambient air quality standards and regionwide pollution reduction plans. Seven air pollutants have been identified by the EPA as being of concern nationwide: O_3; nitrogen dioxide (NO_2); CO; particulate matter less than or equal to 10 microns (PM_{10}), also called respirable particulate matter or coarse particulate matter; fine particulate matter less than or equal to 2.5 microns in size ($PM_{2.5}$), also called fine particulate matter; sulfur dioxide (SO_2); and lead (Pb). These pollutants are collectively referred to as "criteria" pollutants. The sources of these pollutants, their effects on human health and the nation's welfare, and their final deposition in the atmosphere vary considerably.

Ozone (O_3)

O_3 is the principal component of smog and is formed in the atmosphere through a series of reactions involving reactive organic gases (ROGs), also referred to as VOCs, and NO_x in the presence of sunlight. ROG and NO_x are called precursors of O_3. NO_x includes various combinations of nitrogen and oxygen, primarily consisting of nitric oxide (NO) and NO_2. O_3 is a principal cause of lung and eye irritation in the urban environment. Significant O_3 concentrations are primarily produced in the summer, when atmospheric inversions are greatest and temperatures are high. ROG and NO_x emissions are both considered critical in O_3 formation. Control strategies for O_3 have focused on reducing emissions from motor vehicles; industrial processes using solvents and coatings; stationary combustion devices, such as boilers, engines, and gas turbines; and consumer products.

Nitrogen Dioxide (NO_2)[1]

NO2 is a product of combustion and is generated in vehicles and in stationary sources such as power plants and boilers. NO2 can cause lung damage. As noted, NO2 is part of the NOx family and is a principal contributor to O3 and smog.

Carbon Monoxide (CO)

CO is a colorless and odorless gas that, in the urban environment, is associated primarily with the incomplete combustion of fossil fuels in motor vehicles. Relatively high concentrations are typically found near crowded intersections and along heavily used roadways carrying slow-moving traffic. Even under the most severe meteorological and traffic conditions, high concentrations of CO are limited to locations within a relatively short distance (300 to 600 feet) of heavily traveled roadways. Overall, CO emissions have decreased as a result of the state and federal motor vehicle control programs that have mandated increasingly lower emission levels for vehicles manufactured since 1973, as well as inspection and maintenance programs and reformulated gasoline. CO concentrations in the atmosphere are typically higher in winter. The use of oxygenated gasoline in the winter months is required to reduce CO emissions.

Sulfur Dioxide (SO_2)[2]

SO_2 is a combustion product, with the primary source being power plants and heavy industry that use coal or oil as fuel. SO_2 is also a product of diesel engine combustion. The health effects of SO_2 include lung disease and breathing problems for asthmatics. SO_2 in the atmosphere contributes to the formation of acid rain. Due to the low sulfur fuels used in the region, SO_2 is not a problem in the SDAB (SDAPCD 2007a).

Respirable Particulate Matter (PM_{10})

Particulate matter includes both liquid and solid particles in a wide range of sizes and composition. Within San Diego County, sources of PM_{10} include automobile exhaust and dust from construction and from the action of vehicle wheels on paved and unpaved roads. In addition, agriculture, wind-blown sand, and fireplaces can also generate PM_{10} emissions. PM_{10} can cause increased respiratory disease, lung damage, and premature death. Control of PM_{10} is

[1] In this section, the term NO_2 will be used with respect to the presence of nitrogen dioxide in the atmosphere. The term NO_x will be used to refer to the *emissions* of oxides of nitrogen from stationary and mobile sources, which are primarily in the form of NO and, to a lesser extent, NO_2.

[2] In this section, the term SO_2 will be used with respect to the presence of sulfur dioxide in the atmosphere. The term SO_x will be used to refer to the *emissions* of sulfur oxides from stationary and mobile sources, which are primarily in the form of SO_2 and, to a lesser extent, sulfur trioxide (SO_3).

typically achieved through the control of dust at construction sites, the cleaning of paved roads, and the wetting or paving of frequently used unpaved roads.

Fine Particulate Matter ($PM_{2.5}$)

The sources, health effects, and control of $PM_{2.5}$ are similar to those of PM_{10}. In 1997, the EPA determined that the health effects of $PM_{2.5}$ were severe enough to warrant an additional standard (EPA 1997). CARB adopted an annual standard for $PM_{2.5}$ in June 2002 (CARB 2002).

Lead (Pb)

Lead (or Pb) is a stable compound that persists and accumulates both in the environment and in animals. Lead used in gasoline anti-knock additives represented a major source of lead emissions to the atmosphere. However, lead emissions have significantly decreased due to the near elimination of the use of leaded gasoline.

Toxic Air Contaminants

Toxic air contaminants (TACs) refer to a category of air pollutants that pose a present or potential hazard to human health but that tend to have more localized impacts than criteria pollutants. CARB has identified diesel particulate matter as the predominant TAC in California. Diesel particulate matter is emitted into the air by diesel-powered mobile vehicles, including heavy-duty diesel trucks, construction equipment, and passenger vehicles. Certain ROGs may also qualify as TACs.

Types of Emission Sources

Construction Emissions

Project-related construction air quality pollutants contribute to regional air pollution. On- and off-road construction vehicles, along with on-site portable equipment such as generators and air compressors, generate exhaust emissions. Construction vehicles and equipment operation can also cause unacceptable levels of entrained fugitive dust (PM_{10}). Even though they are temporary, construction emissions in some cases may be quantitatively greater on a daily basis than emissions from the operation of the development once it is built.

Operational Emissions

Most development projects also generate what are known as area source emissions. Area source emissions are relatively small quantities of air pollutants when considered individually but may cumulatively represent significant emissions. Generators, water heaters, fireplaces, and the application of paints and lacquers are examples of area source emissions.

Operation of the Proposed PROJECT and periodic maintenance trips to project component sites would also generate air quality emissions during the operational phase.

Ambient Air Quality

The SDAPCD operates numerous air quality monitoring stations in western San Diego County. The monitoring station nearest to the Proposed PROJECT area is the Alpine monitoring station, located approximately 35 miles northwest of the ECO Substation and ESJ Gen-Tie Project areas and approximately 25 miles west of the Tule Wind Project area. Table D.11-1, Local Ambient Air Quality Monitoring Data, provides recent air quality concentrations (annual averages) measured at the Alpine, El Cajon–Redwood Avenue, and Otay Mesa–Paseo International monitoring stations. The El Cajon and Otay Mesa monitoring stations are located approximately 45 miles west of the ECO Substation and ESJ Gen-Tie project areas, and approximately 35 miles west of the Tule Wind Project area. Data from these stations are included because PM_{10} and CO are not monitored at the Alpine monitoring station and limited $PM_{2.5}$ data is available. El Cajon and Otay Mesa represent the closest stations to the project locations after the Alpine station.

Table D.11-1
Local Ambient Air Quality Monitoring Data

Monitoring Site	Year	Ozone, Maximum 8-hour (parts per million)[1]	Nitrogen Dioxide, Maximum 1-hour (parts per million)[2]	Carbon Monoxide, Maximum 8-hour (parts per million)[2]	PM_{10}, Maximum 24-hour ($\mu g/m^3$) [1]	$PM_{2.5}$, Maximum 24-hour ($\mu g/m^3$) [2]
Alpine	2005	0.090	0.061	—	—	—
	2006	0.100	0.057	—	—	—
	2007	0.092	0.057	—	—	40.5
	2008	0.110	0.047	—	—	37.3
	2009	0.098	0.056	—	—	29.7
El Cajon	2005	0.073	0.079	—	50	40.9
	2006	0.091	0.069	—	49	37.6
	2007	0.083	0.065	—	61	61.0
	2008	0.093	0.063	—	41.4	38.5
	2009	0.083	0.054	—	57	56.5
Otay Mesa[a]	2005	0.069	0.109	3.70	154	—
	2006	0.069	0.097	3.36	134	—
	2007	0.072	0.101	3.39	392	—
	2008	0.089	0.123	3.51	158	—
	2009	0.068	0.091	3.06	123	—

Notes:
[1] Source: CARB 2009a
[2] Source: CARB 2009b
[a] PM_{10} concentrations at the Otay Mesa site are heavily influenced by the site's proximity to the truck border crossing at the U.S.–Mexico port of entry
$\mu g/m^3$ = micrograms per cubic meter.

Table D.11-2, Frequency of Air Quality Standard Violations, provides data regarding the number of days that measurements at the three monitoring stations exceeded the state or national standard for the given air quality pollutant. As shown in the table, violations of air quality standards have historically occurred within the project area. The historic concentrations of all other pollutants have been below the applicable state or national standard.

Table D.11-2
Frequency of Air Quality Standard Violations

Monitoring Site	Year	Number of Days Exceeding Standard				
		State 1-Hour Ozone	National ~~1~~8-Hour Ozone	State 24-Hour PM_{10} [a]	National 24-Hour PM_{10} [a]	National 24-Hour $PM_{2.5}$
Alpine	2005	13	~~0~~23	—	—	—
	2006	21	~~0~~37	—	—	—
	2007	18	~~1~~23	—	—	—
	2008	13	~~2~~31	—	—	—
	2009	6	22~~0~~	—	—	—
El Cajon	2005	0	0	0	0	1
	2006	2	~~0~~4	0	0	—
	2007	3	~~0~~3	—	—	—
	2008	3	~~0~~5	0	0	—
	2009	2	~~0~~2	6	0	—
Otay Mesa [b]	2005	2	0	—	—	—
	2006	0	0	159	0	—
	2007	0	0	159	6.1	—
	2008	2	~~0~~2	163	6.1	—
	2009	1	0	146	0.0	—

Source: CARB 2009a, 2011~~09a~~
Notes:
[a] Measurements are usually collected every 6 days. The number of days exceeding the standards is a mathematical estimate of the number of days concentrations would have been greater than the level of the standard had each day been monitored.
[b] PM_{10} concentrations at the Otay Mesa site are heavily influenced by the site's proximity to the truck border crossing at the U.S.–Mexico port of entry.

Sensitive Receptors

The location of a development project is a major factor in determining whether it will result in localized air quality impacts. The potential for adverse air quality impacts increases as the distance between the source of emissions and members of the public decreases. Impacts on sensitive receptors are of particular concern. Sensitive receptors are facilities that house or attract children, the elderly, and people with illnesses, or others who are especially sensitive to the effects of air pollutants. Hospitals, schools, convalescent facilities, and residential areas are examples of sensitive receptors.

Air quality problems typically arise when sources of air pollutants and sensitive receptors are located near one another. Localized impacts to sensitive receptors generally occur in one of two ways:

- A (new) source of air pollutants is proposed to be located close to existing sensitive receptors. For example, an industrial facility is proposed for a site near a school.
- A (new) sensitive receptor is proposed near an existing source of air pollutants. For example, a residential development is proposed near a wastewater treatment plant.

The closest sensitive receptors in the vicinity of the ECO Substation Project area include existing residences located adjacent to the existing Boulevard Substation site and the proposed Boulevard Substation Rebuild site, and existing residences located near the proposed 138-kilovolt (kV) transmission line along Tule Jim Lane. Three existing residences are located adjacent to the Boulevard Substation, and the proposed rebuild site is located where an existing residence is currently situated. Along the proposed alignment route, there are numerous (14~~21~~) homes located within 500 feet of the transmission line right-of-way (ROW) (see Section D.4, Land Use, Table D.4-6). The closest sensitive receptor (a single mobile home) to the ECO Substation is located approximately 2,600 feet northwest of the proposed 500 kV yard.

The Tule Wind Project is located almost entirely on BLM, California State Lands Commission, and Ewiiaapaayp Band of Kumeyaay Indians lands. Sensitive receptors in the vicinity of the Tule Wind Project include residential uses on the Indian reservation, as well as residences located on private property in the vicinity of the project's 138 kV transmission line route, located near the project's connection point at the SDG&E Boulevard Substation.

There are no sensitive receptors in the vicinity of the ESJ Gen-Tie Project area.

D.11.2 Applicable Regulations, Plans, and Standards

The following discussion summarizes the federal, state, and local plans and requirements as they relate to the Proposed PROJECT, as well as the Campo, Manzanita, and Jordan wind energy projects. In addition to the federal regulations identified, the Campo and Manzanita wind energy projects may be subject to the Bureau of Indian Affairs' (BIA's) policies and regulations and tribe-specific policies and plans.

D.11.2.1 Ambient Air Quality Standards

Air quality is analyzed by measuring ambient concentrations of "criteria pollutants,"[3] as shown in Table D.11-1. The EPA and the State of California both have ambient air quality standards that are referred to as the National Ambient Air Quality Standards (NAAQS) and the California Ambient Air Quality Standards (CAAQS), respectively. Both standards are referred to as the AAQS. The NAAQS include maximum concentration levels for seven criteria pollutants (i.e., O_3, NO_2, CO, SO_2, PM_{10}, $PM_{2.5}$, and Pb), above which adverse effects on human health may occur. Because of unique meteorological conditions in California and differences of opinion by medical panels established by CARB and the EPA, there are differences between state and federal standards currently in effect in California. In general, the CAAQS are more stringent than the corresponding NAAQS. The CAAQS also include four other pollutants for which there are no NAAQS counterparts: visibility-reducing particles, hydrogen sulfide, vinyl chloride, and sulfates. The NAAQS and the CAAQS currently in effect in California are shown in Table D.11-3, California and National Ambient Air Quality Standards. To date, ambient air quality standards have not been adopted for air toxics (except lead, hydrogen sulfide, and vinyl chloride); instead, monitoring data are used to estimate potential public health risk and to determine the need for control measures to reduce air toxic emissions from specific sources.

Table D.11-3
California and National Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards[1]	National Standards[2]
Ozone (O_3)	1-hour	0.09 ppm	—
	8-hour	0.070 ppm	0.075 ppm
Respirable particulate matter (PM_{10})	24-hour	50 µg/m^3	150 µg/m^3
	Annual mean	20 µg/m^3	—
Fine particulate matter ($PM_{2.5}$)	24-hour	—	35 µg/m^3
	Annual mean	12 µg/m^3	15.0 µg/m^3
Carbon monoxide (CO)	1-hour	20 ppm	35 ppm
	8-hour	9.0 ppm	9 ppm
Nitrogen dioxide (NO_2)	1-hour	0.18 ppm	0.100 ppm
	Annual mean	0.030 ppm	0.053 ppm
Sulfur dioxide (SO_2)[3]	1-hour	0.25 ppm	0.075 ppm
	24-hour	0.04 ppm	—
Lead (Pb)	30-day average	1.5 µg/m^3	—
	Calendar quarter	—	1.5 µg/m^3

[3] "Criteria pollutants" refers to substances for which CARB or the EPA has established ambient air quality standards.

Table D.11-3 (Continued)

Pollutant	Averaging Time	California Standards[1]	National Standards[2]
	Rolling 3-month average	—	0.15 µg/m^3
Hydrogen sulfide	1-hour	0.03 ppm	—
Vinyl chloride	24-hour	0.01 ppm	—
Sulfates	24-hour	25 µg/m^3	—
Visibility reducing particles	8-hour (10:00 a.m. to 6:00 p.m. PST)	Insufficient amount to produce an extinction coefficient of 0.23 per kilometer due to particles when the relative humidity is less than 70%	—

Source: CARB 2010

Notes: "—" indicates not applicable.

1 California standards for O_3, CO (except Lake Tahoe), SO_2 (1-hour and 24-hour), NO_2, suspended particulate matter—PM_{10}, and $PM_{2.5}$—and visibility-reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

2 National standards (other than O_3, NO_2, SO_2, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The O_3 standard is attained when the fourth-highest 8-hour concentration in a year, averaged over 3 years, is equal to or less than the standard. For NO_2 and SO_2, the standard is attained when the 3-year average of the 98th and 99th percentile, respectively, of the daily maximum 1-hour average at each monitor within an area does not exceed the standard. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m^3 is equal to or less than one. For $PM_{2.5}$, the 24-hour standard is attained when 98% of the daily concentrations, averaged over 3 years, are equal to or less than the standard.

3 On June 2, 2010, the U.S. EPA established a new 1-hour SO_2 standard, effective August 23, 2010. The EPA also revoked both the existing 24-hour SO_2 standard of 0.14 ppm and the annual primary SO_2 standard of 0.030 ppm, effective August 23, 2010.

ppm = parts per million; µg/m^3 = micrograms per cubic meter

The NAAQS and the CAAQS define what is considered clean and healthful air for the general public. Specifically, air quality standards establish the concentration above which a pollutant is known to cause adverse health effects to sensitive groups within the population, such as children and the elderly. The amount of pollutants released and the atmosphere's ability to transport and dilute the pollutants affect a given pollutant's concentration in the atmosphere. Factors affecting transport and dilution include terrain, wind, atmospheric stability, and for photochemical pollutants, sunlight. The SDAB's poor air quality can largely be attributed to emissions, geography, and meteorology.

Air quality of a region is considered to be in attainment of the state standards if the measured ambient air pollutant levels for O_3, NO_2, CO, SO_2 (1-hour and 24-hour), PM_{10}, $PM_{2.5}$, and visibility-reducing particles do not exceed the standards, and all other standards are not equaled or exceeded at any time in any consecutive 3-year period. The NAAQS (other than for O_3, NO_2, PM_{10}, $PM_{2.5}$, and those based on annual averages or arithmetic mean) are not to be exceeded more than once a year. The NAAQS for O_3, NO_2, PM_{10}, and $PM_{2.5}$ are based on statistical calculations over 1- to 3-year periods, depending on the pollutant.

D.11.2.2 Attainment Status

Each air basin is responsible for meeting NAAQS and CAAQS for criteria pollutants and is classified by EPA and CARB as an attainment or nonattainment area for each pollutant. The SDAB is designated a nonattainment area for the State O_3 standards and annual $PM_{2.5}$ standard and, as nearly every other area in the State of California, is designated as a nonattainment area with respect to the 24-hour and annual PM_{10} CAAQS. The SDAB is designated a nonattainment area for the federal 8-hour O_3 standard. A summary of attainment status within the SDAB is provided in Table D.11-4.

Table D.11-4
Attainment Status for Criteria Pollutants in the SDAB

Criteria Pollutant	Federal Designation	State Designation
Ozone (1-hour)	Attainment[1]	Nonattainment
Ozone (8-hour)	Nonattainment (Former Subpart 1)	Nonattainment
Nitrogen Dioxide	Attainment[2]	Attainment
Carbon Monoxide	Attainment[3]	Attainment
Sulfur Dioxide	Attainment	Attainment
PM_{10}	Unclassifiable[4]	Nonattainment
$PM_{2.5}$	Attainment	Nonattainment
Lead	Attainment	Attainment
Sulfates	(no federal standard)	Attainment
Hydrogen Sulfide	(no federal standard)	Unclassified
Visibility	(no federal standard)	Unclassified

Source: SDAPCD 2008
Notes:
1. The federal 1-hour standard of 0.12 ppm was in effect from 1979 through June 15, 2005. The revoked standard is referenced here because it was employed for a long period of time and because it is addressed in State Implementation Plans.
2. The new federal 1-hour standard for nitrogen dioxide became effective April 12, 2010. The current designation is based on compliance with the annual standard.
3. The western portion of San Diego County is designated as an Attainment/Maintenance area. The Proposed PROJECT is located outside of the designated area.
4. At the time of designation, if available data do not support a designation of attainment or nonattainment, the area is designated as unclassifiable.

D.11.2.3 Federal Regulations

The EPA, under the authority of the federal Clean Air Act (CAA, 42 U.S.C. 7401) and its amendments, is responsible for regulating air quality of specific pollutants as defined by ambient air concentrations through the NAAQS. The EPA established the NAAQS for certain concentrations of six criteria pollutants in the ambient air: O_3, NO_2, CO, SO_2, particulate matter (PM_{10} and $PM_{2.5}$), and lead. The EPA has established both primary and secondary standards for these pollutants. Primary standards are designed to protect human health (including the health of

"sensitive" populations such as asthmatics, children, and the elderly) with an adequate margin of safety (EPA 2009). Secondary standards are designed to protect public welfare from air pollutants in the atmosphere (EPA 2009).

The CAA, as amended, and the California Clean Air Act of 1988 both require that air quality management plans be formulated demonstrating how the AAQS will be achieved in nonattainment areas. These laws also provide the basis for the implementing agencies to develop mobile- and stationary-source performance standards.

Portable sources, temporary activities, and stationary sources that cause emissions of air contaminants are managed through the following federal programs:

- **40 CFR 93, Subpart B: Determining Conformity of Federal Actions to State Tribal or Federal Implementation Plans.** This regulation prohibits federal agencies from engaging in actions that do not conform to state and local plans for attainment. As a federal agency, the BLM must make a determination that a proposed action conforms to the applicable state or local implementation plan before it can be approved. The section also establishes guidelines regarding revisions to State Implementation Plans (SIPs). In addition, Section 93.153 of Subpart B states that "conformity determinations are required for each criteria pollutant or precursor where the total of direct and indirect emissions of the criteria pollutant or precursor in a nonattainment or maintenance area caused by a Federal action would equal or exceed any of the rates" established in the section.

D.11.2.4 State Laws and Regulations

The CAA allows states to adopt AAQS and other regulations provided they are at least as stringent as federal standards. CARB has established the more stringent CAAQS for the six criteria pollutants and has also established CAAQS for additional pollutants, including sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. Areas that do not meet the NAAQS or the CAAQS for a particular pollutant are considered "nonattainment areas" for that pollutant.

CARB is the state regulatory agency with authority to enforce regulations to both achieve and maintain the NAAQS and CAAQS. CARB reviews operations and programs of the local air districts and requires each air district with jurisdiction over a nonattainment area to develop a strategy for achieving the NAAQS and CAAQS. The local air districts have primary responsibility for the development and implementation of rules and regulations designed to attain the NAAQS and CAAQS, as well as the permitting of new or modified sources, development of air quality management plans, and adoption and enforcement of air pollution regulations.

Portable sources, temporary activities, and stationary sources that cause emissions of air contaminants are managed through the following state programs.

- **EPA/CARB Off-Road Mobile Sources Emission Reduction Program.** Per the California CAA, CARB is the responsible agency tasked with achieving reductions from off-road mobile sources (including construction equipment) in order to conform to the CAAQS. In 1996, Tier 1 standards for large compression-ignition (i.e., diesel) engines used in off-road mobile sources went into effect in California. This action established NO_x, hydrocarbon, CO, and PM exhaust standards for historically unregulated diesel construction equipment and other diesel off-road equipment (built prior to 1996). Construction equipment built after 1996 is held to more stringent exhaust standards.
- **Airborne Toxic Control Measure for Stationary Compression-Ignition Engines.** This Airborne Toxic Control Measure (ATCM) applies to new and in-use stationary compression-ignition (i.e., diesel) engines. The ATCM requires that new emergency standby engines must comply with hydrocarbon, NO_x, and CO limits that are applicable to an off-road engine of the same model year and horsepower rating. The ATCM further limits the PM emissions from an emergency standby engine operated less than 50 hours per year for maintenance and testing to 0.15 grams per brake-horsepower-hour or the emission limit for an off-road engine with the same maximum rated power, whichever is more stringent.
- **Airborne Toxic Control Measure for Diesel Particulate Matter from Portable Engines.** Starting January 1, 2010, the Portable Engine ATCM required all portable diesel engines (50 horsepower or larger) to be certified to meet a federal or California state standard for newly manufactured non-road engines pursuant to 40 CFR Part 89 or Title 13 of the California Code of Regulations (CARB 2004). Portable engines are any engines used to propel mobile equipment or a motor vehicle of any kind. Portable generators and air compressors are examples of equipment that would be powered by portable engines. The ATCM also establishes the fuels to be used by diesel-powered portable engines.
- **Airborne Toxic Control Measure for In-Use Off-Road Diesel Vehicles in Construction, Mining, and Industrial Operations.** CARB has also developed control measures to reduce diesel PM emissions, as well as NO_x, from in-use (existing) off-road diesel equipment throughout the state. Any person, business, or government agency that owns or operates diesel-powered off-road vehicles in California (except for agricultural or personal use) with engines with maximum power of 25 horsepower or greater are subject to the Regulation to Reduce Emissions from In-Use Off-Road Diesel Vehicles (CARB 2008). This regulation requires vehicle fleets to apply exhaust retrofits that capture pollutants before they are emitted to the air and to replace older vehicles with

newer, cleaner vehicles. The purpose of this regulation is to ensure that relatively low-emitting equipment and vehicles are used for construction activities.

D.11.2.5 Regional Policies, Plans, and Regulations

In the SDAB, the San Diego Association of Governments (SANDAG) and SDAPCD are responsible for developing and implementing the clean air plan for attainment and maintenance of the AAQS. The San Diego County Regional Air Quality Strategy (RAQS) was initially adopted in 1992 and is updated on a triennial basis. The 2009 RAQS Revision contains seven emission control measures to be scheduled for rule development and recommends the deletion of three previously proposed control measures (County of San Diego 2009). The RAQS outline the SDAPCD's plans and control measures designed to attain the CAAQS for O_3. The SDAPCD has also developed the air basin's input to the SIP, which is required under the CAA for nonattainment areas. In 2003, the SDAB was redesignated as an O_3 attainment area for the 1-hour NAAQS for O_3, which was revoked in June 2005. The SDAPCD has developed a plan to attain and maintain the NAAQS for O_3 in its Eight-Hour Ozone Attainment Plan for San Diego County (SDAPCD 2007b), which presents emission inventories, emission control measures, and an attainment demonstration conducted for the SDAB. The SDAB is in attainment for the NAAQS for all other criteria pollutants. The SDAB is currently classified as a nonattainment area under the CAAQS for O_3, PM_{10} and $PM_{2.5}$; however, no air quality plans are required for PM_{10} or $PM_{2.5}$ under the California CAA.

The RAQS rely on information from CARB and SANDAG, including mobile and area source emissions, as well as information regarding projected growth in San Diego County, to project future emissions and then determine the strategies necessary for the reduction of emissions through regulatory controls. CARB mobile source emission projections and SANDAG growth projections are based on population and vehicle trends and land use plans developed by the cities and by the County as part of the development of the County's General Plan. As such, projects that propose development that is consistent with the growth anticipated by the general plans and SANDAG's growth forecasts would be consistent with the RAQS and the SIP. In the event that a project would propose development that is less intense than anticipated with regional growth forecasts, the project would similarly be consistent with the RAQS. If a project proposes development that is greater than that anticipated in SANDAG's growth projections, the project might conflict with the RAQS and SIP and might have a potentially significant impact on air quality. The SIP relies on the same information from SANDAG to develop emission inventories and emission reduction strategies that are included in the attainment demonstration for the air basin.

San Diego Air Pollution Control District

As stated previously, the SDAPCD is responsible for planning, implementing, and enforcing federal and state ambient standards in the SDAB. The following rules and regulations apply to all sources in the jurisdiction of SDAPCD:

- **SDAPCD Regulation II: Permits; Rule 10: Permits Required.** Requires any person building, erecting, altering, or replacing any article, machine, equipment or other contrivance, the use of which may cause the issuance of air contaminants, shall receive written authorization (Authority to Construction) and a Permit to Operate from the SDAPCD (SDAPCD 2000).
- **SDAPCD Regulation IV: Prohibitions; Rule 50: Visible Emissions.** Prohibits any activity causing air contaminant emissions darker than 20% opacity for more than an aggregate of 3 minutes in any consecutive 60-minute time period. In addition, Rule 50 prohibits any diesel pile-driving hammer activity causing air contaminant emissions for a period or periods aggregating more than 4 minutes during the driving of a single pile (SDAPCD 1997).
- **SDAPCD Regulation IV: Prohibitions; Rule 51: Nuisance.** Prohibits the discharge from any source such quantities of air contaminants or other materials that cause or have a tendency to cause injury, detriment, nuisance, annoyance to people and/or the public, or damage to any business or property (SDAPCD 1969).
- **SDAPCD Regulation IV: Prohibitions; Rule 55: Fugitive Dust.** Regulates fugitive dust emissions from any commercial construction or demolition activity capable of generating fugitive dust emissions, including active operations, open storage piles, and inactive disturbed areas, as well as track-out and carry-out onto paved roads beyond a project site (SDAPCD 2009).
- **SDAPCD Regulation IV: Prohibitions; Rule 67.0: Architectural Coatings.** Requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce VOC emissions from the use of these coatings, primarily by placing limits on the VOC content of various coating categories (SDAPCD 2001).
- **SDAPCD Regulation XV: Federal Conformity; Rule 1501: Conformity of General Federal Actions.** Prohibits federal agencies from taking or supporting actions that are inconsistent with the efforts of the SDAPCD to achieve the NAAQS (SDAPCD 1995).

Air Quality Management Plans, O_3. The Eight-Hour Ozone Attainment Plan for San Diego County indicates that local controls and state programs will allow the region to reach attainment of the federal 8-hour O_3 standard by 2009 (SDAPCD 2007b). In addition to this plan, SDAPCD relies on the RAQS to demonstrate how the region will comply with the ~~federal~~

state O_3 standard. The RAQS details how the region will manage and reduce O_3 precursors (NO_x and VOCs) by identifying measures and regulations intended to reduce these contaminants. The control measures identified in the RAQS generally focus on stationary sources; however, the emissions inventories and projections in the RAQS address all potential sources, including those under the authority of CARB and the EPA. Incentive programs for reduction of emissions from heavy-duty diesel vehicles, off-road equipment, and school buses are also established in the RAQS.

Air Quality Management Plans, Particulate Matter. In December 2005, SDAPCD prepared a report titled "Measures to Reduce Particulate Matter in San Diego County" to address implementation of Senate Bill 656 in San Diego County (Senate Bill 656 required additional controls to reduce ambient concentrations of PM_{10} and $PM_{2.5}$) (SDAPCD 2005). In the report, SDAPCD evaluates the implementation of source-control measures that would reduce PM emissions associated with residential wood combustion.

D.11.3 Environmental Effects

D.11.3.1 Definition and Use of CEQA Significance Criteria~~/Indicators under NEPA~~

The State of California has developed guidelines to address the significance of air quality impacts based on Appendix G of the California Environmental Quality Act (CEQA) Guidelines (14 CCR 15000 et seq.), which provide guidance as to whether a project would have a significant environmental impact. Air quality impacts would be considered significant if a proposed project would:

- Conflict with or obstruct implementation of the applicable air quality plan
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for O_3 precursors)
- Expose sensitive receptors to substantial pollutant concentrations
- Create objectionable odors affecting a substantial number of people.

Use of Air Quality Thresholds

As part of its air quality permitting process, the SDAPCD has established thresholds in Rule 20.2 requiring the preparation of Air Quality Impact Assessments (AQIA) for permitted sources. The

SDAPCD sets forth quantitative emission significance thresholds below which a project would not have a significant impact on ambient air quality. Project-related air quality impacts estimated in this environmental analysis would be considered significant if any of the applicable significance thresholds presented in Table D.11-5 are exceeded.

For CEQA purposes, these screening criteria can be used as numeric methods to demonstrate that a project's total emissions would not result in a significant impact to air quality. Since the SDAPCD does not have AQIA thresholds for emissions of VOCs, the County of San Diego's significance thresholds for VOCs (County of San Diego 2007) are appropriate. The hourly and yearly significance thresholds are most appropriately used in situations where temporary emissions such as emergency generators or similar stationary sources are proposed as a part of the project. The daily thresholds are most appropriately used for the standard construction and operational emissions and are used in this analysis.

Table D.11-5
SDAPCD Air Quality Significance Thresholds

Pollutant	Total Emissions		
	Lb. Per Hour	Lb. per Day	Tons per Year
Volatile Organic Compounds (VOC)	—	75	13.7
Oxides of Nitrogen (NO_x)	25	250	40
Carbon Monoxide (CO)	100	550	100
Respirable Particulate Matter (PM_{10})	—	100	15
Fine Particulate Matter ($PM_{2.5}$)	—	55	10
Sulfur Oxides (SO_x)	25	250	40
Lead and Lead Compounds	—	3.2	0.6

Sources: SDAPCD 1999, Rule 20.2(d)(2) for all pollutants except VOC and $PM_{2.5}$; County of San Diego 2007 for VOC and $PM_{2.5}$.

General Conformity

Portions of the Proposed PROJECT (ECO Substation and Tule Wind projects) are on lands managed by the BLM. The construction of the Proposed PROJECT would result in direct emissions during construction. In addition, the decommissioning of the Proposed PROJECT would result in indirect emissions, which would be subject to BLM control. There are no indirect emissions ~~associated~~ associated with operation of the Proposed PROJECT over which the BLM would have continuing control of the operational activities and their emissions, defined as follows.

Under the general conformity regulations, both the direct and indirect emissions associated with a federal action must be evaluated. Title 40, Code of Federal Regulations, Part 93 (40 CFR 93), Subpart B, defines direct emissions as:

> [T]hose emissions of a criteria pollutant or its precursors that are caused or initiated by the Federal action and originate in a nonattainment or maintenance area and occur at the same time and place as the action and are reasonably foreseeable.

Indirect emissions are defined as:

> [T]hose emissions of a criteria pollutant or its precursors:
>
> (1) That are caused or initiated by the Federal action and originate in the same nonattainment or maintenance area but occur at a different time or place as the action
>
> (2) That are reasonably foreseeable
>
> (3) That the agency can practically control
>
> (4) For which the agency has continuing program responsibility.
>
> For the purposes of this definition, even if a federal licensing, rulemaking, or other approving action is a required initial step for a subsequent activity that causes emissions, such initial steps do not mean that a federal agency can practically control any resulting emissions.

A conformity determination is required for each criteria pollutant or precursor where the total of direct and indirect emissions of the criteria pollutant or precursor in a federal nonattainment or maintenance area would equal or exceed specified annual emission rates, referred to as "de minimis" thresholds. For O_3 precursors and PM_{10}, the de minimis thresholds depend on the severity of the nonattainment classification; for other pollutants, the threshold is set at 100 tons per year.

As indicated in Table D.11-4, the SDAB is designated as former Subpart 1 nonattainment for O_3, pending redesignation by EPA. The SDAB is in attainment with all remaining NAAQS. The relevant de minimis thresholds for the SDAB are 100 tons per year for VOCs (O_3 precursor) and NO_x (O_3 precursor).

BLM, the federal agency with approval responsibility over portions of the ECO Substation and Tule Wind projects due to the issuance of ROW grants for each project, would not have ~~authority~~ practical control over the ongoing operation of these projects and the associated emissions. Therefore, general conformity would not apply to the indirect (operational) emissions associated with these projects. However, because BLM would have control over the activities and associated emissions during decommissioning of the Proposed PROJECT, these emissions would

be considered indirect emissions subject to 40 CFR 93. Furthermore, while the Tule Wind Project is primarily under BLM jurisdiction and the ECO Substation and Tule Wind projects are connected projects, the ECO Substation Project could be constructed regardless of the Tule Wind Project and will be subject to a distinct action. For the purposes of this analysis, the ECO Substation project's emissions are not considered "caused or initiated by the federal action" (i.e., Tule Wind Project); therefore, they are not considered indirect emissions with respect to the Tule Wind Project.

In addition, a Presidential Permit will be considered by the Department of Energy (DOE) for the ESJ Gen-Tie Project, and a separate EIS will be issued for that action. With respect to this EIR/EIS, the ESJ Gen-Tie Project is being evaluated for future action by the County of San Diego for a major use permit (Major Impact Service Utility). General conformity does not apply to the County's action, but it would be evaluated in the DOE's EIS or a separate general conformity determination.

D.11.3.2 Applicant Proposed Measures

ECO Substation Project

SDG&E has proposed Applicant Proposed Measures (APMs) ECO-AIR-1 through ECO-AIR-11, which include construction dust and emissions controls, to reduce impacts related to air quality (see Section B.3.4 of this EIR/EIS).

Tule Wind Project

Tule Wind, LLC ~~Pacific Wind Development~~ has proposed APMs TULE-AIR-1 through TULE-AIR-15, which include construction dust and emissions controls, to reduce impacts related to air quality (see Section B.4.4 of this EIR/EIS).

ESJ Gen-Tie Project

Energia Sierra Juarez U.S. Transmission, LLC, has proposed APMs ESJ-AIR-1 through ESJ-AIR-7, which include construction dust and emissions controls, to reduce impacts related to air quality (see Section B.5.4 of this EIR/EIS).

Campo, Manzanita, and Jordan Wind Energy Projects

At the time this EIR/EIS was prepared, the project proponents for these three wind energy projects have not developed project-specific APMs.

D.11.3.3 Direct and Indirect Effects

Table D.11-6 lists the impacts and classification of impacts under CEQA identified for the Proposed PROJECT. See definitions for Class I, II, III, IV, and No Impact in Section D.1.2.2, CEQA vs. NEPA Criteria, of this EIR/EIS. Because this project is being analyzed in an EIS under NEPA, there is no requirement for federal agencies to classify impacts or to determine the significance of impacts; rather, the BLM must take a "hard look" at the impacts of the Proposed PROJECT and its alternatives and determine whether they are adverse. Therefore, while these criteria are used as indicators to frame the analysis of the impacts under NEPA, any determination of significance is a determination under CEQA, not NEPA. Cumulative effects are analyzed in Section F of this EIR/EIS.

Table D.11-6
Air Quality Impacts

Impact No.	Description	CEQA Classification
ECO Substation – Air Quality Impacts		
ECO-AIR-1	Construction would generate dust and exhaust emissions of criteria pollutants and toxic air contaminants.	Class I
ECO-AIR-2	Operation, maintenance, and inspections would generate dust and exhaust emissions of criteria pollutants and toxic air contaminants.	Class III
ECO-AIR-3	Construction and decommissioning would not generate exhaust emissions of VOC and NO_x that would exceed the general conformity de minimis thresholds.	Class III
ECO-AIR-4	Construction and operational activities would not conflict with or obstruct the implementation of applicable local air quality plans.	Class III
ECO-AIR-5	Construction and operational activities would not expose sensitive receptors to substantial pollutant concentrations.	Class II
ECO-AIR-6	Construction and operational activities would not create objectionable odors affecting a substantial number of people.	Class III
Tule Wind – Air Quality Impacts		
TULE-AIR-1	Construction would generate dust and exhaust emissions of criteria pollutants and toxic air contaminants.	Class I
TULE-AIR-2	Operation, maintenance, and inspections would generate dust and exhaust emissions of criteria pollutants and toxic air contaminants.	Class III
TULE-AIR-3	Construction and decommissioning would not generate exhaust emissions of VOC and NO_x that would exceed the general conformity de minimis thresholds.	Class III
TULE-AIR-4	Construction and operational activities would not conflict with or obstruct the implementation of applicable local air quality plans.	Class III
TULE-AIR-5	Construction and operational activities would not expose sensitive receptors to substantial pollutant concentrations.	Class II
TULE-AIR-6	Construction and operational activities would not create objectionable odors affecting a substantial number of people.	Class III

Table D.11-6 (Continued)

Impact No.	Description	CEQA Classification
ESJ Gen-Tie – Air Quality Impacts		
ESJ-AIR-1	Construction would generate dust and exhaust emissions of criteria pollutants and toxic air contaminants.	Class I
ESJ-AIR-2	Operation, maintenance, and inspections would generate dust and exhaust emissions of criteria pollutants and toxic air contaminants.	Class III
ESJ-AIR-3	Construction and decommissioning would not generate exhaust emissions of VOC and NO_x that would exceed the general conformity de minimis thresholds.	Not Applicable
ESJ-AIR-4	Construction and operational activities would not conflict with or obstruct the implementation of applicable local air quality plans.	Class III
ESJ-AIR-5	Construction and operational activities would not expose sensitive receptors to substantial pollutant concentrations.	Class III
ESJ-AIR-6	Construction and operational activities would not create objectionable odors affecting a substantial number of people.	Class III
Proposed PROJECT (COMBINED – including Campo, Manzanita, and Jordan Wind Energy)		
AIR-1	Construction would generate dust and exhaust emissions of criteria pollutants and toxic air contaminants.	Class I
AIR-2	Operation, maintenance, and inspections would generate dust and exhaust emissions of criteria pollutants and toxic air contaminants.	Class III
AIR-3	Construction and decommissioning would not generate exhaust emissions of VOC and NO_x that would exceed the general conformity de minimis thresholds.	Not Applicable
AIR-4	Construction and operational activities would not conflict with or obstruct the implementation of applicable local air quality plans.	Class III
AIR-5	Construction and operational activities would not expose sensitive receptors to substantial pollutant concentrations.	Class II
AIR-6	Construction and operational activities would not create objectionable odors affecting a substantial number of people.	Class III

Environmental Impacts/Environmental Effects

Direct and Indirect (*Note: cumulative effects are addressed in Section F of this EIR/EIS*)

Impact AIR-1: Construction would generate dust and exhaust emissions of criteria pollutants and toxic air contaminants.

ECO Substation Project

Construction of the ECO Substation Project would result in dust and exhaust emissions of criteria pollutants and toxic air contaminants. The primary criteria air pollutants resulting from construction activities include NO_x, CO, and PM_{10} produced from the use of heavy equipment for site development of the ECO Substation component, including bulldozers, road graders, scrapers, compactors, water trucks, asphalt pavers, asphalt haul trucks, and other heavy machinery associated with site development. Other activities associated with construction of the ECO

Substation Project component involve below- and above-grade construction, communication equipment installation, and testing and commissioning. In addition, water for dust control and other purposes during construction would be transported by water trucks from off-site locations within San Diego County, potentially as far away as San Diego.

The 138 kV transmission line component of the ECO Substation Project would also generate elevated levels of dust and exhaust emissions, particularly from activities such as general construction, access road construction, pole foundation installation, and conductor stringing and sagging. Associated construction equipment that would be used for the transmission line project component includes a helicopter, rigging truck, aerial lift truck, air compressors, dump truck, blasting rig, bulldozer, front-end loader, road grader, compactor, drill rig with augers, backhoe, and other smaller construction machinery (SDG&E 2009b). Criteria pollutant emissions generated from the ECO Substation Project are listed according to project component in Table D.11-7.

Most project components would not be constructed concurrently; each individual project component would be constructed at independent intervals. However, in some cases, the worst-case scenario condition would be equivalent to multiple project components producing emissions concurrently. Accordingly, Table D.11-7 shows the emissions from each component of the ECO Substation Project along with the potential maximum daily emissions under anticipated conditions. To account for fugitive dust control measures in the calculations, it was assumed that the active sites would be watered at least three times daily to comply with SDAPCD Rule 55.

Table D.11-7
ECO Substation Project San Diego County Estimated Daily Construction Emissions

Project Component	Pounds per Day					
	VOC	***NO_x***	***CO***	***SO_x***	***PM_{10}***	***$PM_{2.5}$***
ECO Substation	50.10	383.91	247.95	0.25	106.89	33.34
Southwest Powerlink (SWPL) Loop-In	8.35	76.55	33.49	0.01	4.50	2.51
138 kV Transmission Line	63.71	256.68	248.17	5.95	67.96	16.03
Boulevard Substation Rebuild	11.87	122.28	55.77	0.08	33.02	10.79
Maximum Daily Emissions[1]	65.16	383.91	343.04	5.95	106.86	33.34
Significance Criteria	75	250	550	250	100	55
Exceeds Threshold?	No	**Yes**	No	No	**Yes**	No

Sources: SDG&E 2009a, 2009b.
Note:
[1] The maximum daily emissions are those that could occur during overlapping construction phases of the individual components.

As shown in Table D.11-7, the project emissions are expected to remain well below the daily significance thresholds for criteria air pollutants for VOCs, CO, SO_x, and $PM_{2.5}$; however, they would exceed the daily significance threshold for NO_x and PM_{10} during construction activities. Emissions from construction of the ECO Substation Project would contribute substantially to existing air quality violations of O_3 standards since NO_x is an O_3 precursor.

Maximum daily emissions associated with the ECO Substation construction activities within Imperial County are shown in Table D.11-8. The project is designated as Tier I (tier classifications are derived based on operational emissions) by the Imperial County Air Pollution Control District (ICAPCD) because the project's operational and maintenance activities would take place within San Diego County, and no criteria air pollutant emissions would occur due to operational and maintenance activities with Imperial County. Additionally, because there would be no active construction site in Imperial County—the only construction-related activities occurring in Imperial County would be the use of trucks to import fill material to the ECO Substation site—the majority of the control measures for construction activities normally recommended by the ICAPCD do not apply. ICAPCD Regulation VIII would also not apply as there would be no active operation within Imperial County. The requirements for paved roads in Regulation VIII, Rule 805, do not apply to work trucks traveling on paved roads. Therefore, there are no applicable significance thresholds with regard to construction-related activities in Imperial County (SDG&E 2009a).

Table D.11-8
ECO Substation Project Imperial County Estimated Daily Construction Emissions

Project Component	Pounds per Day					
	VOC	*NO_x*	*CO*	*SO_x*	*PM_{10}*	*$PM_{2.5}$*
ECO Substation	7.59	113.25	38.63	0.16	4.89	4.14
Significance Criteria	N/A	N/A	N/A	N/A	N/A	N/A

Source: SDG&E 2009a.

Diesel-fueled construction equipment and vehicles would emit diesel exhaust particulate matter (DPM), which is designated as a toxic air contaminant by CARB. Construction of the ECO Substation Project does not involve any substantial sources of DPM that would occur at any single location for an extended period of time (i.e., most construction activities of individual components would be completed in less than a year). The DPM emissions from construction equipment and vehicles would be distributed over the entire project area and roadway network. In addition, off-road construction equipment and diesel trucks are subject to CARB ATCMs that will reduce DPM emissions from these fleets over time. More specifically, Mitigation Measure AQ-2 will require the use of low-emitting equipment using Tier 2 and Tier 3 engines. Moreover, sensitive receptors are not generally located near the project sites; however, the closest receptor

to a component of the ECO Substation Project (138 kV transmission line) is approximately 0.18 mile. Due to reasons previously discussed, these receptors would not be subjected to substantial air quality effects. Accordingly, identified impacts would not be adverse under NEPA. Under CEQA, impacts would be considered less than significant (Class III).

Model simulation results from the URBEMIS 2007 land use and air emissions model, as illustrated in Tables D.11-7 and D.11-8, indicate that, with the implementation of appropriate dust control and emission reductions due to the APMs (see Section D.11.3.2), construction impacts resulting from the ECO Substation Project would not be adverse, except for NO_x and PM_{10} emissions, which would result in an adverse impact under NEPA. Mitigation has therefore been provided that would mitigate this impact. Implementation of Mitigation Measure AQ-1, which supersedes APMs ECO-AIR-1 through ECO-AIR-13 and provides further clarification, would ensure that construction emissions (with the exception of NO_x and PM_{10}) would not be adverse under NEPA. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant (Class II). NO_x and PM_{10} emissions would exceed the significance thresholds and result in an unavoidable adverse impact under NEPA. ~~However, the identified impact cannot be mitigated.~~ Under CEQA, impacts related to NO_x and PM_{10} emissions would be significant and cannot be mitigated to a level that is considered less than significant (Class I).

MM AQ-1: The following measures shall be incorporated to reduce fugitive dust and other criteria pollutant emissions during construction activities:

- Rock aprons or rattle plates will be installed as needed at the intersection of dirt access roads and paved public roadways to clean the tires of equipment prior to leaving the site.
- All active construction areas, unpaved access roads, parking areas, and staging areas will be watered or stabilized with nontoxic soil stabilizers as needed to control fugitive dust.
- All public streets will be swept or cleaned with mechanical sweepers if visible soil material is carried onto them by construction activities or vehicles.
- Exposed stockpiles (e.g., dirt, sand) will be covered and/or watered or stabilized with nontoxic soil binders as needed to control emissions.
- Trucks transporting bulk materials will be completely covered unless 2 feet of freeboard space from the top of the container is maintained with no spillage and loss of material. In addition, the cargo compartment of all haul trucks will be cleaned and/or washed at the delivery site after removal of the bulk material.

- Movement of bulk material handling or transfer will be stabilized prior to handling or at a point of transfer with application of sufficient water or chemical stabilizers, or by sheltering or enclosing the operation and transfer line.
- Traffic speeds on unpaved roads and the ROW will be limited to 15 miles per hour.
- Vehicle idling time will be limited to a maximum of 5 minutes for vehicles and construction equipment, except where idling is required for the equipment to perform its task.
- Road graders used during site development activities will be equipped with a CARB-verified Level 2 diesel emission control strategy or a comparable diesel-control technology that will reduce inhalable particulate matter (PM_{10}) emissions by 50% or more.
- If suitable park-and-ride facilities are available in the project vicinity, construction workers will be encouraged to carpool to the job site to the extent feasible. The ability to develop an effective carpool program for the project would depend upon the proximity of carpool facilities to the job site, the geographical commute departure points of construction workers, and the extent to which carpooling would not adversely affect worker show-up time and the project's construction schedule.
- All off-road, diesel-powered construction equipment will be kept in good tune and maintained according to the manufacturer's specifications.
- Construction equipment will use electric-powered motors where feasible.
- The construction contractor will prepare and implement a high-wind dust control plan and terminate soil disturbance when winds exceed 25 miles per hour.
- The construction contractor will require 90-day, low-NO_x tune-ups for off-road equipment.
- Diesel particulate filters will be utilized on heavy equipment where feasible.
- Construction activities will comply with all applicable SDAPCD rules and regulations.

A reduction of 33% in the maximum daily emissions from all emission sources would be required to reduce NO_x emissions to a level below the significance threshold. Implementation of Mitigation Measure AQ-2, which requires the utilization of Tier 2 equipment on engines greater

than 50 horsepower and Tier 3 equipment where feasible, would reduce NO_x emissions. However, the exact reduction cannot be determined because the assumed tiers of the equipment in the URBEMIS 2007 emissions model are not known. Identified impacts would be unavoidable and adverse under NEPA.~~; therefore, M~~mitigation Measure AQ-2 has been provided as follows;~~.~~ h~~H~~owever, the identified impact cannot be mitigated. Under CEQA, impacts would be significant and cannot be mitigated to a level that is considered less than significant (Class I).

MM AQ-2: All off-road diesel engines with a rated output of greater than 50 horsepower will, at a minimum, meet the Tier 2 California Emissions Standards for Off-Road Compression Ignition Engines. If reasonably available, Tier 3 engines will be employed.

Tule Wind Project

Construction and decommissioning of the Tule Wind Project would result in a temporary addition of pollutants to the local airshed caused by soil disturbance, fugitive dust emissions, and combustion pollutants from on-site construction equipment, as well as from off-site trucks hauling construction materials. Wind facility construction generally utilizes heavy machinery for construction activities such as bulldozers, graders, water trucks, backhoes, excavators, heavy duty rock trenchers, concrete trucks, cranes, and other smaller machinery necessary for the transport of materials. The project is anticipated to be constructed over the course of 18 to 24 months. Construction activities associated with the project are anticipated to generate pollutant emissions from rough grading and road construction, surface paving, building construction, architectural coatings, tower foundations, tower installation, transmission line construction, and construction worker commute trips. Additionally, emissions would result from operation of the concrete batch plant. The primary construction vehicle pollutant emission generators expected for the Proposed Tule Wind Project would consist of diesel-powered grading equipment (Iberdrola Renewables 2010). Table D.11-9 shows the expected emission rates for criteria pollutants. The maximum daily emissions are expected to occur during the tower installation/finish work phase of the Tule Wind Project. All activities and emissions listed in Table D.11-9 are conservatively assumed to occur concurrently. To account for fugitive dust control measures in the calculations, it was assumed that the active sites would be watered at least three times daily to comply with SDAPCD Rule 55.

Table D.11-9
Tule Wind Project Estimated Daily Construction Emissions

Emission Source	Pounds per Day					
	VOC	*NO_x*	*CO*	*SO_x*	*PM_{10}*	*$PM_{2.5}$*
Off-Road Equipment[1]	5.0	51.3	20.3	0.0	0.0	2.9
Worker Commute Trips	1.3	5.4	38.1	0.1	0.2	0.2
Delivery and Other Trucks	10.6	235.0	99.2	0.3	7.1	7.1
Paved Road Dust	—	—	—	—	537.9	80.3
Transmission Line	63.7	256.7	248.2	6.0	68.0	16.0
Maximum Daily Emissions	80.7	548.4	405.7	6.4	613.2	106.5
Significance Criteria	75	250	550	250	100	55
Exceeds Threshold?	Yes	Yes	No	No	Yes	Yes

Sources: Iberdrola Renewables 2010. Additional calculations are provided in Appendix 8, Air Quality Calculations.
Note:
[1] Maximum daily emissions for off-road equipment would occur during the Tower Construction/Finish Work phase.

As shown in Table D.11-9, the Tule Wind Project is expected to remain below the daily significance thresholds for criteria air pollutants for CO and SO_x. However, construction-related emissions would exceed the VOC, NO_x, PM_{10}, and $PM_{2.5}$ thresholds, and the Tule Wind Project would result in an unavoidable adverse impact to air quality under NEPA.~~;~~ ~~therefore, mitigation has been provided.~~ Implementation of Mitigation Measures AQ-1 (which supersedes APMs TULE-AIR-1 through TULE-AIR-11 and TULE-AIR-13 through TULE-AIR-15 and provides further clarification) and AQ-2 would reduce criteria pollutant emissions; however, the identified impact cannot be mitigated. Under CEQA, impacts would be significant and cannot be mitigated to a level that is considered less than significant (Class I).

As stated for the ECO Substation Project, diesel-fueled construction equipment and vehicles would emit DPM. Construction of the Tule Wind Project does not involve any substantial sources of DPM that would occur at any single location for an extended period of time (i.e., most construction activities of individual components would be completed in less than a year). The DPM emissions from construction equipment and vehicles would be distributed over the entire project area and roadway network. In addition, off-road construction equipment and diesel trucks are subject to CARB ATCMs that will reduce DPM emissions from these fleets over time. More specifically, Mitigation Measure AQ-2 will require the use of low-emitting equipment using Tier 2 and Tier 3 engines. Sensitive receptors would be located as close as 18 feet from roadway construction areas, 787 feet from underground utility construction, 705 feet from tower base construction, 63 feet from 138 kV transmission line construction, and 318 feet away from batch plant operation (HDR 2011). ~~Moreover, sensitive receptors are not generally located near the project site; the closest receptor to a component of the Tule Wind Project is approximately 0.19 mile from any active construction area.~~ These receptors ~~would be closest to the 138 kV overhead~~

~~transmission line and therefore~~ would not be exposed to significant construction activities, as the roadway construction, tower base construction, and overhead line installation would ~~be installed in~~occur over a relatively short period of time. The concrete batch plant would use a low-emission Tier 3 engine to provide its power. Accordingly, identified impacts would not be adverse under NEPA. Under CEQA, impacts would be considered less than significant (Class III).

The expected lifespan of the Tule Wind Project is 30 years. Decommissioning activities would be expected to result in substantially lower equipment- and vehicle-related emissions due to more stringent engine and motor vehicle standards (e.g., all off-road diesel engines in 30 years will meet Tier 4 requirements at a minimum). Fugitive dust emissions, however, would likely be similar to those experienced during construction activities; therefore, they would result in a potentially significant impact. Prior to termination of the ROW authorization, a decommissioning plan would be developed and approved by BLM and San Diego County. The decommissioning plan would require similar dust control measures as described under Mitigation Measure AQ-1. The condition of the site and surrounding areas in 30 years is unknown; therefore, emissions associated with fugitive dust are unknown. However, since there is the potential for fugitive dust emissions to occur in excess of current thresholds, decommissioning activities would have the potential to result in an unavoidable adverse impact under NEPA. ~~Under CEQA, unmitigated impacts would be significant.~~ Implementation of Mitigation Measure AQ-1 would reduce this impact; however, the impacts cannot be mitigated. Under CEQA, impacts would be significant and cannot be mitigated to a level that is considered less than significant (Class I).

ESJ Gen-Tie Project

Air quality emissions associated with the ESJ Gen-Tie Project include emissions of PM_{10} (fugitive dust) and NO_x and VOCs from construction and grading activities. The construction of the ESJ Gen-Tie Project would involve installation of three to five lattice towers or monopoles and conductor along a less-than-1-mile length north of the U.S.–Mexico border in the Mountain Empire Subregional Planning area. The proposed gen-tie facility would transmit electricity whenever wind power has been generated by the facility in Mexico. Criteria pollutants generated from the project are shown in Table D.11-10. Importantly, the emissions indicated in Table D.11-10 include emissions associated with the ESJ wind farm (located in Mexico), such as from truck trips, that would occur within SDAB. Therefore, these emissions are not simply representative of the construction required to install three to five lattice towers.

Table D.11-10
ESJ Gen-Tie Project Estimated Daily Construction Emissions

Emission Source	Pounds per Day					
	VOC	*NO_x*	*CO*	*SO_x*	*PM_{10}*	*$PM_{2.5}$*
Off-Road Equipment/Trucks	7.58	78.99	30.94	0.10	3.69	3.26
Fugitive Dust	—	—	—	—	282.31	38.41
Worker Commute Trips	0.85	0.84	8.26	0.01	0.09	0.06
Maximum Daily Emissions	8.43	79.83	39.20	0.11	286.09	41.73
Significance Criteria	75	250	550	250	100	55
Exceeds Threshold?	No	No	No	No	**Yes**	No

Source: ENTRIX 2010.

Emissions from the construction phase would be minimal, temporary in nature, and localized, resulting in pollutant emissions below the thresholds for VOCs, NO_x, CO, SO_x, and $PM_{2.5}$. In addition, the vehicle trips generated from the project construction would result in approximately 50 average daily trips for construction workers, which, as shown in the Table D.11-10, would not contribute significantly to air quality impacts.

Implementation of appropriate dust control and emission reductions due to the APMs (see Section D.11.3.2) would ensure that impacts would not be adverse, except for PM_{10} emissions, which would result in an ~~potentially~~ unavoidable adverse impact under NEPA. ~~; therefore,~~ M~~m~~itigation has been provided that would mitigate this impact. ~~Implementation of~~ Mitigation Measure AQ-1, which supersedes APMs ESJ-AIR-1 through ESJ-AIR-7 and provides further clarification, would ensure that construction emissions (with the exception of PM_{10}) would ~~not~~ be ~~adverse~~reduced. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant (Class II).

Fugitive dust emissions (PM_{10}) would, however, exceed the significance thresholds and result in an unavoidable adverse impact under NEPA.~~; therefore,~~ M~~m~~itigation has been provided;~~.~~ h~~H~~owever, the identified impact cannot be mitigated. Under CEQA, impacts related to PM_{10} emissions would be significant and cannot be mitigated to a level that is considered less than significant (Class I).

As stated for the ECO Substation Project, diesel-fueled construction equipment and vehicles would emit DPM. Construction of the ESJ Gen-Tie project does not involve any substantial sources of DPM that would occur at any single location for an extended period of time (i.e., the construction activity would last 6 months). The DPM emissions from construction equipment and vehicles would be distributed over the entire project area and roadway network. In addition, off-road construction equipment and diesel trucks are subject to CARB ATCMs that will reduce DPM emissions from these fleets over time. More specifically, Mitigation Measure

AQ-2 will require the use of low-emitting equipment using Tier 2 and Tier 3 engines. Moreover, sensitive receptors are not generally located near the project site; the closest receptor to the ESJ Gen-Tie Project is approximately ~~400~~ 1,200 feet from any active construction area (distance provided is from the property access route to the sensitive receptor location). Accordingly, identified impacts would not be adverse under NEPA. Under CEQA, impacts would be considered less than significant (Class III).

Proposed PROJECT

As previously discussed, construction of the Proposed PROJECT would result in a temporary addition of pollutants to the local airshed caused by soil disturbance, fugitive dust emissions, and combustion pollutants from on-site construction equipment, as well as from off-site trucks hauling construction materials. Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation, and for dust, the prevailing weather conditions. Therefore, such emission levels can only be approximately estimated with a corresponding uncertainty in precise ambient air quality impacts. Fugitive dust (PM_{10} and $PM_{2.5}$) emissions would primarily result from grading and site preparation activities. NO_x and CO emissions would primarily result from the use of construction equipment and motor vehicles. During the finishing phase for substations and other buildings, paving operations and the application of architectural coatings (e.g., paints) would release VOCs.

The primary criteria air pollutants resulting from construction activities include NO_x, CO, PM_{10}, and $PM_{2.5}$ produced from the use of heavy equipment for site development and from fugitive dust. Heavy equipment for site development of the Proposed PROJECT includes bulldozers, road graders, scrapers, compactors, water trucks, asphalt pavers, asphalt haul trucks, and other heavy machinery associated with site development of the ECO Substation, Tule Wind, and ESJ Gen-Tie projects. Other activities associated with construction involve below- and above-grade construction, communication equipment installation, transmission line installation, wind turbine construction, tower assemblage, and testing and commissioning. To account for fugitive dust control measures in the calculations, it was assumed that the active sites would be watered at least three times daily to comply with SDAPCD Rule 55. Criteria pollutant emissions generated from the Proposed PROJECT are shown in Table D.11-11.

Table D.11-11
Proposed PROJECT San Diego County Estimated Daily Construction Emissions

Project	Pounds per Day					
	VOC	*NO_x*	*CO*	*SO_x*	*PM_{10}*	*$PM_{2.5}$*
ECO Substation Project	65.16	383.91	343.04	5.95	106.89	33.34
Tule Wind Project	80.7	548.4	405.7	6.4	613.2	106.5

Table D.11-11 (Continued)

Project	Pounds per Day					
	VOC	*NO_x*	*CO*	*SO_x*	*PM_{10}*	*$PM_{2.5}$*
ESJ Gen-Tie Project	8.43	79.83	39.20	0.11	286.09	41.73
Total Daily Emissions	154.29	1,012.14	787.94	12.46	1,006.18	181.57
Significance Criteria	75	250	550	250	100	55
Exceeds Threshold?	**Yes**	**Yes**	**Yes**	No	**Yes**	**Yes**

Note: Total daily emissions of the Proposed PROJECT assume that the maximum daily emissions of the ECO Substation, Tule Wind, and ESJ Gen-Tie projects would occur concurrently.

As shown in Table D.11-11, the Proposed PROJECT is expected to remain below the daily significance thresholds for criteria air pollutants for SO_x. However, construction-related emissions would exceed the VOC, NO_x, CO, PM_{10}, and $PM_{2.5}$ thresholds, and the Proposed PROJECT would result in an unavoidable adverse impact to air quality under NEPA~~; therefore, mitigation has been provided. Implementation of~~ Mitigation Measures AQ-1 and AQ-2 would reduce criteria pollutant emissions; however, the identified impact cannot be mitigated. Under CEQA, impacts would be significant and cannot be mitigated to a level that is considered less than significant (Class I).

The proposed Campo, Manzanita, and Jordan wind energy projects would also generate dust and exhaust emissions of criteria pollutants and toxic air contaminants during their construction. The extent to which these wind projects and the Proposed PROJECT would result in significant combined impacts depends on their proximity and construction schedules. The Proposed PROJECT would be constructed in 2010 to 2012. The Campo Wind Energy project is expected to be online in August 2012, which would probably require construction in 2011 to 2012 based on the installation of 106 wind turbines; however, no specific construction schedule has been identified by the applicant. Based on the size of this project, the emissions of NO_x and PM_{10} (and possibly other pollutants) would likely be significant at the project level. The Manzanita Wind Energy project is expected to be online in December 2012, which would probably require construction in 2012 based on the installation of 25 wind turbines; however, no specific construction schedule has been identified by the applicant. Based on the size of this project, the emissions of NO_x and PM_{10} (and possibly other pollutants) may be significant at the project level, and they could contribute to the combined construction emissions from the Proposed PROJECT and the Campo Wind Energy project, portions of which could occur in the same time frame. Thus, the construction of the Proposed PROJECT and the Campo and Manzanita wind energy projects would result in significant and unavoidable air quality impacts during construction. The Jordan Wind Energy project is expected to be online in November 2013, and construction is anticipated to occur between February and October 2013. Based on the size of this project, the emissions of NO_x and PM_{10} (and possibly other pollutants) may be significant at

the project level. However, the Jordan Wind Energy project is expected to be constructed after completion of the Proposed PROJECT. The NO_x, CO, VOC, $PM_{10,}$ and $PM_{2.5}$ emissions from the Proposed PROJECT were found to be individually significant; therefore, the Proposed PROJECT's, including the proposed Campo, Manzanita, and Jordan wind energy project's contribution to a significant impact would be unavoidable and adverse under NEPA and, under CEQA, would represent a significant and unmitigable impact (Class I).

The maximum daily emissions associated with the Proposed PROJECT construction phases within Imperial County are shown in Table D.11-12. The Imperial County portion of the Proposed PROJECT is designated as Tier I by the ICAPCD because the project's operational and maintenance activities, including the proposed Campo, Manzanita, and Jordan wind energy project would take place within San Diego County, and no criteria air pollutant emissions would occur due to operational and maintenance activities with Imperial County. Because there would be no active construction site in Imperial County—the only construction-related activities occurring in Imperial County would be the use of trucks to import fill material to the ECO Substation site—the majority of the control measures for construction activities normally recommended by the ICAPCD do not apply. Therefore, there are no applicable significance thresholds with regard to activities in Imperial County.

Table D.11-12
Proposed PROJECT Imperial County Estimated Daily Construction Emissions

Project	Pounds per Day					
	VOC	*NO_x*	*CO*	*SO_x*	*PM_{10}*	*$PM_{2.5}$*
ECO Substation Project	7.59	113.25	38.63	0.16	4.89	4.14

Sources: SDG&E 2009a; Appendix 8, Air Quality Calculations.

Impact AIR-2: Operation, maintenance, and inspections would generate dust and exhaust emissions of criteria pollutants and toxic air contaminants.

ECO Substation Project

Upon completion of construction activities, periodic vehicle trips would be required for maintenance and inspection of the East County and Boulevard substations and the transmission line. In addition, two diesel-fired emergency generators would be operated periodically for maintenance and testing and during outages. As shown in Table D.11-13, operational emission levels would remain well below the significance thresholds. Operation of the project would not require a substantial number of new vehicle trips compared to existing conditions; therefore, the project is not expected to exceed the thresholds and mitigation is not required. Operational impacts to air quality would not be adverse under NEPA. Under CEQA, impacts would be considered less than significant (Class III).

Table D.11-13
ECO Substation Project San Diego County
Estimated Daily Operation and Maintenance Emissions

Project Component	Pounds per Day					
	VOC	*NO_x*	*CO*	*SO_x*	*PM_{10}*	*$PM_{2.5}$*
ECO Substation	7.26	33.66	73.99	1.01	1.95	1.63
SWPL Loop-In	0.23	0.81	2.83	0.01	0.04	0.03
138 kV Transmission Line	2.67	8.4	30.88	0.03	0.41	0.31
Boulevard Substation Rebuild	0.25	0.81	2.95	0.01	0.04	0.03
Maximum Daily Emissions	10.41	43.68	110.65	1.06	2.44	2.00
Significance Criteria	75	250	550	250	100	55
Exceeds Threshold?	No	No	No	No	No	No

Source: SDG&E 2009a.

The only operational stationary source of toxic air contaminants would be two diesel-fired emergency generators at the ECO substation, which would emit DPM. There would also be limited use of chemicals, lubricants, and cleaning agents for maintenance (see also Section D.10, Public Health and Safety). To comply with the CARB ATCM for stationary diesel engines, the generators must comply with a minimum of the Tier 3 CARB/EPA off-road equipment standards at the time of installation.4 The emergency generators would be operated a limited amount of time (i.e., less than 50 hours per year) for maintenance and testing and as needed for emergency outages. The nearest sensitive receptor (a mobile home residence) to the ECO Substation is located 0.5 mile northwest of the substation. As discussed in Section D.4, Land Use, the County of San Diego has no permit history regarding this residence, and therefore, it is considered an illegal land use.

Additionally, given the limited operation of the generators, the DPM emissions would not likely result in unacceptable health impacts. Furthermore, when the SDAPCD evaluates the permit applications for these generators, they must be shown to be in compliance with SDAPCD Rule 1200[5] or else a permit cannot be issued. Therefore, identified impacts would not be adverse under NEPA. Under CEQA, impacts would be considered less than significant (Class III).

[4] Depending on when the emergency generators are purchased and potential revisions to the ATCMs for stationary diesel engines, the engines may be subject to the Tier 3 or Tier 4 Interim standards.

[5] Under SDAPCD Rule 1200, the cancer risk criteria are (a) equal to or less than 1 in one million if T-BACT is not used or (b) equal to or less than 10 in one million if T-BACT is used. Compliance with the CARB/EPA particulate matter emission standard for an equivalent off-road engine would be considered T-BACT.

Tule Wind Project

The Tule Wind Project is expected to be operational for a minimum of 30 years. Project operational emissions would result from vehicle use associated with maintenance, repair, and inspection of the project components. Expected operational emissions are delineated in Table D.11-14. During operation, the project is expected to be supported by 12 permanent full-time employees utilizing light duty automobiles and trucks (Iberdrola Renewables 2010). Throughout operation of the project, new vehicle trips are not anticipated to increase substantially.

Table D.11-14
Tule Wind Project San Diego County
Estimated Daily Operation and Maintenance Emissions

Project Component	Pounds per Day					
	VOC	*NO_x*	*CO*	*SO_x*	*PM_{10}*	*$PM_{2.5}$*
Employee Vehicles	0.09	0.45	3.23	0.00	0.02	0.02
Maximum Daily Emissions	0.09	0.45	3.23	0.00	0.02	0.02
Significance Criteria	75	250	550	250	100	55
Exceeds Threshold?	No	No	No	No	No	No

Source: Appendix 8 Air Quality Calculations.

Additionally, wind turbines are considered a clean, renewable energy source and would not impact air quality standards by their operation. As such, pollutant emissions associated with operation of the Tule Wind Project would be negligible. Therefore, the project operations would not violate air quality standards or contribute substantially to an existing or projected air quality violation. Identified impacts would not be adverse under NEPA. Under CEQA, impacts would be considered less than significant (Class III).

No sources of toxic air contaminants would be associated with the operation, maintenance, and inspections of the Tule Wind Project except for the limited use of chemicals, lubricants, and cleaning agents for maintenance (see also Section D.10, Public Health and Safety). Therefore, identified impacts would not be adverse under NEPA. Under CEQA, impacts would be considered less than significant (Class III).

ESJ Gen-Tie Project

Upon completion of construction activities, periodic vehicle trips would be required for maintenance and inspection of the ESJ Gen-Tie Project. Operation of the project would result in approximately two to three workers accessing the site on a periodic basis. As such, operational emission levels would remain well below the significance thresholds. Operation of the project would not require a substantial number of new vehicle trips; therefore, the project is not expected to exceed these thresholds, and mitigation is not required. Therefore, operational impacts to air

quality would not be adverse under NEPA. Under CEQA, impacts would be considered less than significant (Class III).

No sources of toxic air contaminants would be associated with the operation, maintenance, and inspections of the ESJ Gen-Tie Project (see also Section D.10, Public Health and Safety). Therefore, identified impacts would not be adverse under NEPA. Under CEQA, impacts would be considered less than significant (Class III).

Proposed PROJECT

Proposed PROJECT, including the proposed Campo, Manzanita, and Jordan wind energy project operational emissions would result from vehicle use associated with maintenance, repair, and inspection of the project components. Upon completion of construction activities, periodic vehicle trips would be required for maintenance and inspection of the ECO Substation, Tule Wind, and ESJ Gen-Tie, as well as the proposed Campo, Manzanita, and Jordan wind energy projects. The ECO Substation is expected to require approximately six trips per year by a two- to four-person crew. Typically, a major inspection would take place annually, requiring approximately 20 personnel for approximately 1 week. During its operation, the Tule Wind project is expected to be supported by 12 permanent full-time employees utilizing light-duty automobiles and trucks. The ESJ Gen-Tie Project would require approximately 2 to 3 workers accessing the site on a periodic basis. The level of operation and maintenance activities required for the proposed Campo, Manzanita, and Jordan wind energy projects are anticipated to be similar to the proposed Tule Wind Project.

As shown in Table D.11-15, operational emission levels would remain well below the significance thresholds. Operation of the project would not require a substantial number of vehicle trips; therefore, the Proposed PROJECT, including the proposed Campo, Manzanita, and Jordan wind energy projects is not expected to exceed the thresholds, and mitigation is not required. Operational impacts to air quality would not be adverse under NEPA. Under CEQA, impacts would be considered less than significant (Class III).

Table D.11-15
Proposed PROJECT San Diego County
Estimated Daily Operations and Maintenance Emissions

Project	Pounds per Day					
	VOC	*NO_x*	*CO*	*SO_x*	*PM_{10}*	*$PM_{2.5}$*
ECO Substation Project	10.41	43.68	110.65	1.06	2.44	2.00
Tule Wind Project	0.09	0.45	3.23	0.00	0.02	0.02
ESJ Gen-Tie Project	Negligible	Negligible	Negligible	Negligible	Negligible	Negligible
Maximum Daily Emissions	10.50	44.13	113.88	1.06	2.46	2.02

Table D.11-15 (Continuous)

Project	Pounds per Day					
	VOC	*NO_x*	*CO*	*SO_x*	*PM_{10}*	*$PM_{2.5}$*
Significance Criteria	75	250	550	250	100	55
Exceeds Threshold?	No	No	No	No	No	No

Note: Total daily emissions of the Proposed PROJECT assume that the maximum daily operational emissions of the ECO Substation, Tule Wind, and ESJ Gen-Tie projects would occur concurrently.

As discussed for the individual projects, no sources of toxic air contaminants associated with operation, maintenance, and inspections would result in adverse health impacts. It is assumed that the proposed Campo, Manzanita, and Jordan wind energy projects likewise would result in no sources of toxic air contaminants similar to the previous discussion for the individual projects. Due to the distances between the six project sites and absence of common receptors, the identified combined impacts would not be adverse under NEPA. Under CEQA, impacts would be considered less than significant (Class III).

Impact AIR-3: Construction and decommissioning would generate exhaust emissions of VOC and NO_x that would not exceed the general conformity de minimis thresholds.

As previously discussed, a conformity determination is required for each criteria pollutant or precursor where the total of direct and indirect emissions of the criteria pollutant or precursor in a federal nonattainment or maintenance area would equal or exceed specified annual emission rates, referred to as "de minimis" thresholds. For O_3 precursors, the de minimis thresholds depend on the severity of the nonattainment classification; for other pollutants, the threshold is set at 100 tons per year. As indicated in Table D.11-4, the SDAB is designated as former Subpart 1 nonattainment for O_3, for which the threshold is 100 tons per year, and a maintenance area for CO. The SDAB is in attainment with all remaining NAAQS.

ECO Substation Project

The relevant de minimis thresholds for the SDAB are 100 tons per year for VOCs (O_3 precursor) and NO_x (O_3 precursor). Table D.11-16 shows the maximum annual emission rates during construction as they pertain to general conformity requirements for the ECO Substation Project.

As shown in Table D.11-16, the direct annual emissions of VOC and NO_x would not exceed the de minimis thresholds as a result of project construction. Thus, further analysis is not required for these pollutants because their emissions would be less than the de minimis thresholds. Therefore, the project would be in compliance with the general conformity requirements and would not conflict with local air quality attainment or maintenance plans to achieve or maintain

federal ambient air quality standards. Identified impacts would not be adverse under NEPA. Under CEQA, impacts would be considered less than significant (Class III).

Decommissioning activities, which would result in indirect VOC and NO_x emissions, would be expected to result in substantially lower equipment- and vehicle-related emissions due to more stringent off-road engine and motor vehicle standards (e.g., all off-road diesel engines in 30 years will meet Tier 4 standards at a minimum). Given that the construction emissions would not exceed the de minimis thresholds, decommissioning emissions also would not be expected to exceed these thresholds. Identified impacts would not be adverse under NEPA. Under CEQA, impacts would be considered less than significant (Class III).

Table D.11-16
ECO Substation Project San Diego County
Estimated Annual Construction Emissions

Project Component	Tons per Year					
	VOC	*NO_x*	*CO*	*SO_x*	*PM_{10}*	*$PM_{2.5}$*
2010	2.74	31.18	12.59	0.01	9.72	2.95
2011	4.00	31.74	30.67	0.02	5.96	2.26
2012	1.98	17.39	16.41	0.02	0.75	0.64
De Minimis Threshold	100	100	—	—	—	—
Exceeds Threshold?	No	No	—	—	—	—

Source: SDG&E 2009a.

Tule Wind Project

As previously mentioned, the relevant de minimis thresholds for the SDAB are 100 tons per year for VOCs (O_3 precursor) and NO_x (O_3 precursor). Table D.11-17 shows the maximum direct annual emission rates during construction as they pertain to general conformity requirements for the Tule Wind Project.

Table D.11-17
Tule Wind Project San Diego County
Estimated Annual Construction Emissions

Project Component	Tons per Year					
	VOC	*NO_x*	*CO*	*SO_x*	*PM_{10}*	*$PM_{2.5}$*
Off-Road Equipment	2.60	22.33	12.47	0.41	1.26	1.16
Fugitive Dust	—	—	—	—	3.71	0.77
Concrete Batch Plant	—	—	—	—	0.66	0.44
Batch Plant Generator	0.19	0.56	0.69	0.00	0.04	0.04
Worker Vehicles	0.20	0.84	5.94	0.01	0.03	0.03

Table D.11-17 (Continued)

Project Component	Tons per Year					
	VOC	*NO_x*	*CO*	*SO_x*	*PM_{10}*	*$PM_{2.5}$*
Delivery and Other Trucks	1.66	36.66	15.48	0.05	1.11	1.11
Paved Road Dust	—	—	—	—	82.88	12.38
Total Annual Emissions	4.65	60.39	34.58	0.47	89.69	15.93
De Minimis Threshold	100	100	—	—	—	—
Exceeds Threshold?	No	No	—	—	—	—

Sources: Iberdrola Renewables 2010. Additional calculations are provided in Appendix 8, Air Quality Calculations.
Note:
Maximum annual emissions would occur in 2011 during the Rough Grading/Tower Base Work and Underground Utilities Construction/Tower Work construction phases. Construction emissions associated with the transmission line are not included because the transmission line construction is scheduled to commence in February 2012.

As shown in Table D.11-17, the direct annual emissions of VOC and NO_x would not exceed the de minimis thresholds as a result of project construction. Thus, further analysis is not required for these pollutants because their emissions would be less than the de minimis thresholds. Therefore, the project would be in compliance with the general conformity requirements and would not conflict with local air quality attainment or maintenance plans to achieve or maintain federal ambient air quality standards. Identified impacts would not be adverse under NEPA. Under CEQA, impacts would be considered less than significant (Class III).

Decommissioning activities, which would result in indirect VOC and NO_x emissions, would be expected to result in substantially lower equipment- and vehicle-related emissions due to more stringent off-road engine and motor vehicle standards (e.g., all off-road diesel engines in 30 years will meet Tier 4 standards at a minimum). Given that the construction emissions would not exceed the de minimis thresholds, decommissioning emissions also would not be expected to exceed these thresholds. Identified impacts would not be adverse under NEPA. Under CEQA, impacts would be considered less than significant (Class III).

ESJ Gen-Tie Project

General conformity does not apply to San Diego County's action on the ESJ Gen-Tie Project, but it would be evaluated in the DOE's EIS or a separate general conformity determination as part of the Presidential Permit. Because this EIR/EIS is related only to a local action by the County of San Diego for the ESJ Gen-Tie Project, general conformity requirements would not apply (Not Applicable).

Proposed PROJECT

Because the federal actions associated with the Proposed PROJECT as a whole would be conducted separately for the ECO Substation and Tule Wind projects due to issuance of ROW

grants for each project, general conformity requirements would not apply to the Proposed PROJECT (Not Applicable).

The Campo and Manzanita wind energy projects would be located on tribal lands. As such, it is expected that the Bureau of Indian Affairs would serve as lead agency and would be required to address general conformity for these projects (The Jordan Wind Energy project would be located on unincorporated San Diego County lands and is not expected to entail a federal action). As these two wind energy projects would be essentially similar in construction as the Tule Wind Project, they are not expected to exceed de minimis thresholds for VOC and NO_x (Table D.11-17). Therefore, the Campo and Manzanita wind energy projects would be in compliance with the general conformity requirements and would not conflict with local air quality attainment or maintenance plans to achieve or maintain federal ambient air quality standards. Identified impacts would not be adverse under NEPA. Under CEQA, impacts would be considered less than significant (Class III). As discussed previously, general conformity requirements would apply to the federal actions associated with these projects but would be conducted separately for each action.

Impact AIR-4: Construction and operational activities would not conflict with or obstruct the implementation of applicable local air quality plans.

ECO Substation Project, Tule Wind Project, ESJ Gen-Tie Project (Proposed PROJECT including the proposed Campo, Manzanita, and Jordan wind energy projects)

The Proposed PROJECT site, including the proposed Campo, Manzanita, and Jordan wind energy projects, is located in San Diego County within the SDAB, which is governed by the SDAPCD. The SDAPCD regulates air quality through its permit authority over most types of stationary emission sources and through its planning and enforcement activities.

An air quality plan describes air pollution control strategies that are to be implemented by a region classified as a nonattainment area. The purpose of an air quality plan is to eventually bring the area into compliance with federal and state requirements.

The SDAB is a federal and state nonattainment area for 8-hour O_3, and a state nonattainment area for 1-hour O_3, PM_{10}, and $PM_{2.5}$. The periodic violations of NAAQS in the SDAB, particularly for O_3 in inland foothills areas, require that a plan be developed outlining the pollution controls that will be undertaken to improve air quality.

As discussed earlier, the Proposed PROJECT would result in less-than-significant operational emissions due to maintenance operations. While there would be a change in land use from that assumed in development of the SDAB air quality plans (refer to Section D.4, Land Use, for more information), the resultant air emissions would not be substantially different (e.g., minimal

vehicle trips would be associated with both the existing and proposed land use designations). Thus, the Proposed PROJECT would not conflict with local air quality attainment or maintenance plans. The construction of the Proposed PROJECT would comply with applicable SDAPCD rules. As a result, the Proposed PROJECT would be in conformance with the air quality plans. Identified impacts would not be adverse under NEPA. Under CEQA, impacts would be considered less than significant (Class III).

Impact AIR-5: Construction and operational activities would not expose sensitive receptors to substantial pollutant concentrations.

ECO Substation Project

The majority of the construction activities involved in the ECO Substation Project would be located in open space or public lands, away from sensitive receptors. There are multiple sensitive receptors in the vicinity of the project site, which are likely to be affected by particulate matter and diesel exhaust emitted during various construction phases. However, because there would not be a concentration of construction equipment in any one area for an extended period of time, particulate matter and diesel exhaust emissions would be distributed throughout the project site and would, therefore, occur in relatively low concentrations at existing sensitive receptors. As a result, these construction emissions would be adverse under NEPA.~~; therefore,~~ M~~m~~itigation has been provided that would mitigate this impact. Mitigation Measures AQ-1 and AQ-2 are identified under Impact AIR-1. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant (Class II).

As previously discussed, operation and maintenance emissions would remain well below the significance thresholds. Because most project components would be located in open space or public lands, away from sensitive receptors, impacts to these receptors would not be considered significant. While pollutant emissions would occur during project operations, these activities would be periodic and short term in nature, and would not likely expose receptors for more than brief periods of time. Therefore, impacts to sensitive receptors due to operational activities would not be adverse under NEPA (SDG&E 2009a). Under CEQA, impacts would be considered less than significant (Class III).

Tule Wind Project

The sensitive receptors located closest to the project area are the residents along McCain Valley and Ribbonwood roads and residents in the community of Boulevard located south of I-8. Sensitive receptors would be located as close as 18 feet from roadway construction areas, 787 feet from underground utility construction, 705 feet from tower base construction, 63 feet from 138 kV transmission line construction, and 318 feet away from batch plant operation (HDR 2011). There are no hospitals or local parks in the immediate area where construction-related

activities are proposed, as the area is primarily rural in nature. The nearest school is Clover Flat Elementary, located at 39639 Old Highway 80, approximately 1.25 miles west of the project site.

The majority of emissions associated with the ~~Proposed PROJECT~~Tule Wind Project would occur during construction. Residents ~~and business owners within approximately 2,000 feet of~~ near construction activities are anticipated to be subject to amounts of air quality impacts greater than in the surrounding areas. ~~The nearest sensitive receptor is located 2,000 feet from the project boundary.~~ These construction-related emissions are generally short-term in duration but can still cause adverse air quality impacts. However, because there wouldn't be a concentration of construction equipment in any one area for an extended period of time, particulate matter and diesel exhaust emissions would be distributed throughout the project site and would, therefore, occur in relatively low concentrations at existing sensitive receptors. As a result, these construction emissions would be considered adverse under NEPA. ~~; therefore,~~ M~~m~~itigation has been provided that would mitigate this impact (see Mitigation Measures AQ-1 and AQ-2 identified under Impact AIR-1). Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant (Class II).

Additionally, project operational emissions would result from vehicle use associated with maintenance, repair, and inspection of project components. Operational emissions associated with the project would be negligible and would not expose sensitive receptors to substantial air pollutant concentrations. Therefore, impacts to sensitive receptors would not be adverse under NEPA (Iberdrola Renewables 2010). Under CEQA, impacts would be considered less than significant (Class III).

ESJ Gen-Tie Project

Based on a review of the project site and surrounding development, no sensitive receptors have been identified within the vicinity of the project site. As a result, impacts related to construction and operational emissions would not be adverse under NEPA. Under CEQA, impacts would be considered less than significant (Class III).

Proposed PROJECT

There are multiple sensitive receptors in the vicinity of the Proposed PROJECT site that are likely to be affected by particulate matter and diesel exhaust emitted during construction of the Proposed PROJECT, including the proposed Campo, Manzanita, and Jordan wind energy projects. However, Proposed PROJECT emissions would not impact sensitive receptors at a greater level than each individual project, as these projects are located in different areas and would impact different sensitive receptors. Additionally, because there wouldn't be a concentration of construction equipment in any one area for an extended period of time, particulate matter and diesel exhaust emissions would be distributed throughout the project sites

and would, therefore, occur in relatively low concentrations at existing sensitive receptors. As a result, these construction emissions would not be considered adverse with the incorporation of proper mitigation. Identified impacts would be considered adverse without mitigation under NEPA.; ~~therefore,~~ Mitigation Measures AQ-1 and AQ-2 have been provided that would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant (Class II).

As previously discussed, operation and maintenance emissions would remain well below the significance thresholds. While pollutant emissions would occur during project operations, these activities would be periodic and short term in nature, and would not likely expose receptors for more than brief periods of time. Therefore, impacts to sensitive receptors due to operational activities would not be adverse under NEPA. Under CEQA, impacts would be considered less than significant (Class III).

Impact AIR-6: Construction and operational activities would not create objectionable odors affecting a substantial number of people.

ECO Substation Project, Tule Wind Project, ESJ Gen-Tie Project (Proposed PROJECT)

Odor issues are very subjective by the nature of odors themselves, and their measurements are difficult to quantify. As a result, this threshold is qualitative, and each project will be reviewed on an individual basis, focusing on the existing and potential surrounding uses and location of sensitive receptors.

Section 6318 of the San Diego County Zoning Ordinance requires that all commercial and industrial uses be operated so as not to emit matter causing unpleasant odors that are perceptible by the average person at or beyond any lot line of the lot containing said uses. Section 6318 goes on to further provide specific dilution standards that must be met "at or beyond any lot line of the lot containing the uses" (County of San Diego 1978). APCD Rule 51 (Public Nuisance) also prohibits emission of any material that causes nuisance to a considerable number of persons or endangers the comfort, health, or safety of any person. A project that proposes a use that would produce objectionable odors would be deemed to have a significant odor impact if it would affect a considerable number of off-site receptors.

Due to the nature of the Proposed PROJECT, odor impacts are unlikely. Typical odor nuisances include hydrogen sulfide, ammonia, chlorine, and other sulfide-related emissions. No significant sources of these pollutants would exist during construction, operation, or maintenance activities. An additional potential source of odor is diesel engine emissions. Diesel-powered equipment idling times would be limited to reduce any potential impacts. As previously mentioned, multiple sensitive receptors are located within the Proposed PROJECT, including the proposed Campo,

Manzanita, and Jordan wind energy project vicinity. Construction activities would be short term and intermittent. Because there would be few sources of odor in proximity to sensitive receptors, and construction would be short term and localized near these sensitive receptors along the transmission line routes, odor-related impacts would not be adverse under NEPA. Under CEQA, impacts would be considered less than significant (Class III).

D.11.4 ECO Substation Project Alternatives

Table D.11-18 summarizes the impacts and classification of the impacts under CEQA that have been identified for the ECO Substation Project alternatives. See definitions for Class I, II, III, IV, and No Impact in Section D.1.2.2, CEQA vs. NEPA Criteria, of this EIR/EIS. Because this project is being analyzed in an EIS under NEPA, there is no requirement for federal agencies to classify impacts or to determine the significance of impacts; rather, the BLM must take a "hard look" at the impacts of the Proposed PROJECT and its alternatives and determine whether they are adverse. Therefore, while these criteria are used as indicators to frame the analysis of the impacts under NEPA, any determination of significance is a determination under CEQA, not NEPA.

Table D.11-18
Air Quality Impacts Identified for ECO Substation Project Alternatives

Impact No.	Description	CEQA Classification
ECO Substation Alternative Site		
ECO-AIR-1	Construction would generate dust and exhaust emissions of criteria pollutants and toxic air contaminants.	Class I
ECO-AIR-2	Operation, maintenance, and inspections would generate dust and exhaust emissions of criteria pollutants and toxic air contaminants.	Class III
ECO-AIR-3	Construction and decommissioning would not generate exhaust emissions of VOC and NO_x that would exceed the general conformity de minimis thresholds.	Class III
ECO-AIR-4	Construction and operational activities would not conflict with or obstruct the implementation of applicable local air quality plans.	Class III
ECO-AIR-5	Construction and operational activities would not expose sensitive receptors to substantial pollutant concentrations.	Class II
ECO-AIR-6	Construction and operational activities would not create objectionable odors affecting a substantial number of people.	Class III
ECO Partial Underground 138 kV Transmission Route Alternative		
ECO-AIR-1	Construction would generate dust and exhaust emissions of criteria pollutants and toxic air contaminants.	Class I
ECO-AIR-2	Operation, maintenance, and inspections would generate dust and exhaust emissions of criteria pollutants and toxic air contaminants.	Class III
ECO-AIR-3	Construction and decommissioning would not generate exhaust emissions of VOC and NO_x that would exceed the general conformity de minimis thresholds.	Class III
ECO-AIR-4	Construction and operational activities would not conflict with or obstruct the implementation of applicable local air quality plans.	Class III

Table D.11-18 (Continued)

Impact No.	Description	CEQA Classification
ECO-AIR-5	Construction and operational activities would not expose sensitive receptors to substantial pollutant concentrations.	Class II
ECO-AIR-6	Construction and operational activities would not create objectionable odors affecting a substantial number of people.	Class III
ECO Highway 80 138 kV Transmission Route Alternative		
ECO-AIR-1	Construction would generate dust and exhaust emissions of criteria pollutants and toxic air contaminants.	Class I
ECO-AIR-2	Operation, maintenance, and inspections would generate dust and exhaust emissions of criteria pollutants and toxic air contaminants.	Class III
ECO-AIR-3	Construction and decommissioning would not generate exhaust emissions of VOC and NO_x that would exceed the general conformity de minimis thresholds.	Class III
ECO-AIR-4	Construction and operational activities would not conflict with or obstruct the implementation of applicable local air quality plans.	Class III
ECO-AIR-5	Construction and operational activities would not expose sensitive receptors to substantial pollutant concentrations.	Class II
ECO-AIR-6	Construction and operational activities would not create objectionable odors affecting a substantial number of people.	Class III
ECO Highway 80 Underground 138 kV Transmission Route Alternative		
ECO-AIR-1	Construction would generate dust and exhaust emissions of criteria pollutants and toxic air contaminants.	Class I
ECO-AIR-2	Operation, maintenance, and inspections would generate dust and exhaust emissions of criteria pollutants and toxic air contaminants.	Class III
ECO-AIR-3	Construction and decommissioning would not generate exhaust emissions of VOC and NO_x that would exceed the general conformity de minimis thresholds.	Class III
ECO-AIR-4	Construction and operational activities would not conflict with or obstruct the implementation of applicable local air quality plans.	Class III
ECO-AIR-5	Construction and operational activities would not expose sensitive receptors to substantial pollutant concentrations.	Class II
ECO-AIR-6	Construction and operational activities would not create objectionable odors affecting a substantial number of people.	Class III

D.11.4.1 ECO Substation Alternative Site

Environmental Setting/Affected Environment

Sections D.11.1 and D.11.2 describe the environmental setting for the proposed ECO Substation Project. Because this alternative would only shift the proposed ECO Substation site 700 feet to the east and change the access route to along the west and southern substation boundary, the environmental setting would be the same as described in Sections D.11.1 and D.11.2.

Environmental Impacts/Environmental Effects

Direct and Indirect (*Note: cumulative effects are addressed in Section F of this EIR/EIS*)

Impact AIR-1: Impact AIR-1 would reflect impact findings previously discussed in Section D.11.3.3 for the proposed ECO Substation Project. As such, construction activities, worker crews, construction schedule, and operational activities would essentially be the same as the proposed ECO Substation Project. Impacts associated with temporary construction impacts to air quality would be unavoidable and adverse under NEPA for NO_x and PM_{10} only~~; therefore, .~~ M~~m~~itigation has been provided~~;~~. h~~H~~owever, the identified impact cannot be mitigated. Under CEQA, impacts would be significant and cannot be mitigated to a level that is considered less than significant (Class I). All other impacts for criteria pollutants and toxic air contaminants would not be adverse under NEPA. Under CEQA, impacts would be considered less than significant (Class III).

Impacts AIR-2 through AIR-6: Impacts AIR-2 through AIR-6 would reflect impact findings previously discussed in Section D.11.3.3 for the proposed ECO Substation Project. Operational and maintenance activities would not be adverse under NEPA. Under CEQA, impacts would be considered less than significant (Class III) as shown in Table D.11-13. As shown in Table D.11-16, Impact AIR-3, the annual emissions of VOC and NO_x would reflect this alternative's generated emissions and therefore would not exceed the de minimis thresholds as a result of construction or decommissioning regarding general conformity requirements. Impacts related to general conformity would not be adverse under NEPA. Under CEQA, impacts would be considered less than significant (Class III). This alternative would be in compliance with all applicable air quality plans. While there would be a change in land use from that assumed in development of the SDAB air quality plans, the resultant air emissions would not be substantially different (e.g., minimal vehicle trips would be associated with both the existing and proposed land use designations). Thus, this alternative would not conflict with local air quality attainment or maintenance plans; therefore, this alternative would not result in an adverse impact under NEPA. Under CEQA, impacts would be considered less than significant (Class III).

Additionally, this alternative would be located farther away from the nearest residences. Construction impacts that could potentially affect nearby sensitive receptors would be considered adverse under NEPA~~; therefore,~~. M~~m~~itigation has been provided that would mitigate this impact (see Mitigation Measures AQ-1 and AQ-2). Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant (Class II). Because there would be few sources of odor in proximity to sensitive receptors and construction would be short term and localized along the transmission line route, odor-related impacts would not be adverse under NEPA. Under CEQA, impacts would be considered less than significant (Class III).

D.11.4.2 ECO Partial Underground 138 kV Transmission Route Alternative

Environmental Setting/Affected Environment

With the exception of the undergrounding of the proposed 138 kV transmission line between milepost (MP) 9 and the rebuilt Boulevard Substation and the rerouting and undergrounding of the proposed 138 kV transmission line between MP 0.3 and MP 2.4, components of this alternative would the same as those identified for the ECO Substation Project as presented in Section B, Project Description, of this EIR/EIS. Under this alternative, the proposed 138 kV transmission line from MP 9 to the rebuilt Boulevard Substation would be installed underground (instead of on overhead transmission poles) along the same route as the proposed ECO Substation Project. In addition, between MP 0.3 and MP 2.4, the proposed 138 kV transmission line would be rerouted and installed underground for approximately 2.7 miles along Old Highway 80 and Carrizo Gorge Road and would then rejoin the proposed 138 kV transmission line. With the exception of the Old Highway 80 and Carrizo Gorge Road underground reroute,~~Since~~ this alternative would follow the same route as the proposed ECO Substation Project~~,~~ and the environmental setting, including location within the SDAB and regulatory requirements as they apply to proposed components of this alternative, would be the same as those identified in Sections D.11.1 and D.11.2.

Environmental Impacts/Environmental Effects

Direct and Indirect (*Note: cumulative effects are addressed in Section F of this EIR/EIS*)

Impact AIR-1: Construction activities would differ marginally from the proposed ECO Substation Project as open trenching operations would be required to underground approximately 4.3 miles of the proposed 138 kV transmission line between the SWPL and Boulevard Substation and to reroute and underground approximately 2.7 miles of the proposed 138 kV transmission line along Old Highway 80 and Carrizo Gorge Road, as opposed to construction of the line overhead on transmission line poles. This additional trenching activity and soil disturbance would slightly increase construction-generated emissions for criteria pollutants when compared to the proposed substation project, resulting from both trenching equipment emissions and an increase in fugitive dust levels. However, underground activity could reduce some of the use of a helicopter for aboveground transmission line installation. Because the proposed substation project would generate construction-related emissions close to the significance thresholds, as shown in Table D.11-7, particularly for NO_x and PM_{10}, additional trenching activity could potentially exceed the thresholds during the transmission route alternative construction phase. Identified impacts would be unavoidable and adverse under NEPA, as the significance thresholds could be exceeded~~; therefore, mitigation has been provided~~. The implementation of aforementioned Mitigation Measures AQ-1 and AQ-2, including fugitive dust control measures, reduced idling times for construction equipment, cleaner engine technology, and appropriate

transport of fill material, would aid in reducing construction impacts resulting from this alternative; however, identified impacts cannot be mitigated. Under CEQA, impacts would be significant and cannot be mitigated to a level that is considered less than significant (Class I).

Impacts AIR-2 through AIR-6: Impacts AIR-2 through AIR-6 would reflect impact findings previously discussed in Section D.11.3.3 for the proposed ECO Substation Project. Operational impacts associated with the undergrounding of the proposed 138 kV transmission line would be essentially the same, as undergrounding the transmission line would not alter operational activities; therefore, impacts would not be adverse under NEPA. Under CEQA, impacts would be considered less than significant (Class III).

Although construction activities due to additional heavy equipment for tasks such as trenching could potentially generate increased emissions when compared to the proposed ECO Substation Project, exhaust emissions—as they are relevant to general conformity requirements—are so far below the thresholds for the proposed ECO Substation that changes in construction equipment would not be substantial as to generate emissions that would exceed the significance thresholds (Table D.11-16). Impacts would therefore not be considered adverse under NEPA and would remain less than significant under CEQA (Class III). While there would be a change in land use from that assumed in development of the SDAB air quality plans, the resultant air emissions would not be substantially different (e.g., minimal vehicle trips would be associated with both the existing and proposed land use designations). Thus, this alternative would not conflict with local air quality attainment or maintenance plans and would not result in adverse impacts under NEPA and would remain less than significant under CEQA (Class III). Additionally, impacts that could potentially impact nearby sensitive receptors would be reduced to a less-than-significant level under CEQA (Class II) with the implementation of aforementioned Mitigation Measures AQ-1 and AQ-2, most notably implementation of controls for fugitive dust emissions. Under NEPA,~~;~~ ~~therefore,~~ impacts would ~~not~~ be adverse but mitigated. Due to the similar nature of the proposed ECO Substation Project to this alternative, odor impacts are unlikely, and impacts would not be adverse under NEPA and under CEQA impacts would be considered less than significant (Class III).

D.11.4.3 ECO Highway 80 138 kV Transmission Route Alternative

Environmental Setting/Affected Environment

With the exception of the Old Highway 80 138 kV transmission line route alternative, components of this alternative would be the same as those identified for the proposed ECO Substation Project. From the intersection of the SWPL transmission line and Old Highway 80 (approximately 1.5 miles northwest of Jacumba), this alternative would expand and utilize an existing utility ROW and overbuild an existing distribution line for approximately 4.8 miles along Old Highway 80 to the rebuilt Boulevard Substation. The affected segment of Old

Highway 80 (and the ECO Highway 80 138 kV Transmission Route Alternative) is entirely within the SDAB; therefore, the environmental setting would remain the same as discussed in Sections D.11.1 and D.11.2.

Environmental Impacts/Environmental Effects

Direct and Indirect (*Note: cumulative effects are addressed in Section F of this EIR/EIS*)

Impact AIR-1: Compared with the proposed ECO Substation site, this alternative would be similar in construction activities, worker crews, and construction schedule. Impacts associated with temporary construction impacts to air quality would be unavoidable and adverse under NEPA for NO_x and PM_{10} only.~~; therefore,~~ M~~m~~itigation has been provided (see Mitigation Measures AQ-1 and AQ-2); however, ~~.~~ t~~T~~he identified impact~~, however,~~ cannot be mitigated. Under CEQA, impacts would be significant and cannot be mitigated to a level that is considered less than significant (Class I). All other impacts for criteria pollutants and toxic air contaminants would not be adverse under NEPA and under CEQA, impacts would be considered less than significant (Class III).

Impacts AIR-2 through AIR-6: Impacts AIR-2 through AIR-6 would reflect impact findings previously discussed in Section D.11.3.3 for the proposed ECO Substation Project. Impacts associated with operational activities would essentially be the same as those identified for the proposed ECO Substation Project in Section D.11.3.3 as this alternative's operational activities would not change, thereby generating equivalent emission rates for criteria pollutants (Table D.11-13). As a result, impacts would not be adverse under NEPA and would be considered less than significant under CEQA (Class III). Because this alternative would not differ in construction or ~~operational~~ decommissioning activities from the proposed ECO Substation Project, exhaust emissions of VOC and NO_x would not exceed the de minimis thresholds, and the project would meet general conformity requirements. As such, impacts related to general conformity would not be adverse under NEPA and would remain less than significant under CEQA (Class III). While there would be a change in land use from that assumed in development of the SDAB air quality plans, the resultant air emissions would not be substantially different (e.g., minimal vehicle trips would be associated with both the existing and proposed land use designations). Thus, this alternative would not conflict with local air quality attainment or maintenance plans and impacts would not be adverse under NEPA. Under CEQA, impacts would be considered less than significant (Class III). Additionally, impacts that could potentially impact nearby sensitive receptors would be reduced to a less-than-significant level under CEQA (Class II) with implementation of aforementioned Mitigation Measures AQ-1 and AQ-2, most notably implementation of controls for fugitive dust emissions. Impacts to sensitive receptors ~~, therefore,~~ would ~~not~~ be adverse but mitigated under NEPA. Due to the similar nature of the proposed ECO

Substation Project to this alternative, odor impacts are unlikely, and impacts would not be adverse under NEPA; impacts would be less than significant under CEQA (Class III).

D.11.4.4 ECO Highway 80 Underground 138 kV Transmission Route Alternative

Environmental Setting/Affected Environment

With the exception of the Old Highway 80 underground route alternative, components under this alternative would be the same as those identified for the proposed ECO Substation Project in Section D.11.3.3. From the intersection of the SWPL transmission line and Old Highway 80, this alternative would place the 138 kV transmission line underground adjacent to Old Highway 80 (expanding and utilizing an existing utility ROW) and would follow the roadway north and west to the rebuilt Boulevard Substation.

The environmental setting adjacent to the affected segment of Old Highway 80 associated with this alternative would be the same as previously identified for the ECO Highway 80 138 kV Transmission Route Alternative in Section D.11.4.3.

Environmental Impacts/Environmental Effects

Direct and Indirect (*Note: cumulative effects are addressed in Section F of this EIR/EIS*)

Impact AIR-1: Construction activities would differ marginally from the proposed ECO Substation Project, as open trenching operations would be required to underground approximately 4.8 miles of the proposed 138 kV transmission line adjacent to Old Highway 80, as opposed to constructing the line overhead on transmission line poles. This additional trenching activity and soil disturbance would slightly increase construction-generated emissions for criteria pollutants when compared to the proposed substation project, resulting from both trenching equipment emissions and an increase in fugitive dust levels. Due to the fact that the proposed substation project would generate construction-related emissions close to the significance thresholds, as shown in Table D.11-7, particularly for NO_x, PM_{10}, and $PM_{2.5}$, additional trenching activity could potentially exceed the thresholds during the transmission route alternative construction phase. Impacts would be considered unavoidable and adverse under NEPA should the significance thresholds be exceeded~~; therefore, mitigation has been provided~~. ~~Implementation of~~ Mitigation Measures AQ-1 and AQ-2 would aid in reducing construction impacts resulting from this alternative; however, emissions may still exceed the significance thresholds. ~~Impacts would be considered adverse.~~ Under CEQA, impacts would be significant and cannot be mitigated to a level that is considered less than significant (Class I).

Impacts AIR-2 through AIR-6: Impacts AIR-2 through AIR-6 would reflect impact findings previously discussed in Section D.11.3.3 for the proposed ECO Substation Project. Operational and maintenance impacts under this alternative would be essentially the same as the proposed

ECO Substation Project; therefore, operational impacts resulting from this alternative would not be adverse under NEPA; impacts would be less than significant under CEQA (Class III). Construction emissions are so far below the de minimis thresholds for the proposed ECO Substation, that changes in construction equipment required for additional trenching for undergrounding the 138 kV transmission line would not be substantial enough to generate emissions that would exceed de minimis thresholds, as shown in Table D.11-16. Impacts therefore would not be adverse under NEPA, and under CEQA would be considered less than significant (Class III). Moreover, while there would be a change in land use from that assumed in development of the SDAB air quality plans, the resultant air emissions would not be substantially different (e.g., minimal vehicle trips would be associated with both the existing and proposed land use designations). Thus, this alternative would not conflict with local air quality attainment or maintenance plans, and impacts would not be adverse under NEPA; and under CEQA, would be less than significant (Class III). Additionally, impacts that could potentially affect nearby sensitive receptors would be reduced to a less-than-significant level under CEQA (Class II) with the implementation of aforementioned Mitigation Measures AQ-1 and AQ-2, most notably implementation of controls for fugitive dust emissions. Impacts to sensitive receptors would ~~therefore not~~ be adverse but mitigable under NEPA. Due to the similar nature of the proposed ECO Substation Project to this alternative, odor impacts are unlikely, and impacts would not be adverse under NEPA; and under CEQA, would be less than significant (Class III).

D.11.5 Tule Wind Project Alternatives

Table D.11-19 summarizes the impacts and classification of impacts under CEQA that have been identified for the Tule Wind Project alternatives. See definitions for Class I, II, III, IV, and No Impact in Section D.1.2.2, CEQA vs. NEPA Criteria, of this EIR/EIS. Because this project is being analyzed in an EIS under NEPA, there is no requirement for federal agencies to classify impacts or to determine the significance of impacts; rather, the BLM must take a "hard look" at the impacts of the Proposed PROJECT and its alternatives and determine whether they are adverse. Therefore, while these criteria are used as indicators to frame the analysis of the impacts under NEPA, any determination of significance is a determination under CEQA, not NEPA.

Table D.11-19
Air Quality Impacts Identified for Tule Wind Project Alternatives

Impact No.	Description	CEQA Classification
Tule Wind Alternative 1, Gen-Tie Route 2 with Collector Substation/ O&M Facility on Rough Acres Ranch		
TULE-AIR-1	Construction would generate dust and exhaust emissions of criteria pollutants and toxic air contaminants.	Class I
TULE-AIR-2	Operation, maintenance, and inspections would generate dust and exhaust emissions of criteria pollutants and toxic air contaminants.	Class III

Table D.11-19 (Continued)

Impact No.	Description	CEQA Classification
TULE-AIR-3	Construction and decommissioning would not generate exhaust emissions of VOC and NO_x that would exceed the general conformity de minimis thresholds.	Class III
TULE-AIR-4	Construction and operational activities would not conflict with or obstruct the implementation of applicable local air quality plans.	Class III
TULE-AIR-5	Construction and operational activities would not expose sensitive receptors to substantial pollutant concentrations.	Class II
TULE-AIR-6	Construction and operational activities would not create objectionable odors affecting a substantial number of people.	Class III
Tule Wind Alternative 2, Gen-Tie Route 2 Underground with Collector Substation/O&M Facility on Rough Acres Ranch		
TULE-AIR-1	Construction would generate dust and exhaust emissions of criteria pollutants and toxic air contaminants.	Class I
TULE-AIR-2	Operation, maintenance, and inspections would generate dust and exhaust emissions of criteria pollutants and toxic air contaminants.	Class III
TULE-AIR-3	Construction and decommissioning would not generate exhaust emissions of VOC and NO_x that would exceed the general conformity de minimis thresholds.	Class III
TULE-AIR-4	Construction and operational activities would not conflict with or obstruct the implementation of applicable local air quality plans.	Class III
TULE-AIR-5	Construction and operational activities would not expose sensitive receptors to substantial pollutant concentrations.	Class II
TULE-AIR-6	Construction and operational activities would not create objectionable odors affecting a substantial number of people.	Class III
Tule Wind Alternative 3, Gen-Tie Route 3 with Collector Substation/O&M Facility on Rough Acres Ranch		
TULE-AIR-1	Construction would generate dust and exhaust emissions of criteria pollutants and toxic air contaminants.	Class I
TULE-AIR-2	Operation, maintenance, and inspections would generate dust and exhaust emissions of criteria pollutants and toxic air contaminants.	Class III
TULE-AIR-3	Construction and decommissioning would not generate exhaust emissions of VOC and NO_x that would exceed the general conformity de minimis thresholds.	Class III
TULE-AIR-4	Construction and operational activities would not conflict with or obstruct the implementation of applicable local air quality plans.	Class III
TULE-AIR-5	Construction and operational activities would not expose sensitive receptors to substantial pollutant concentrations.	Class II
TULE-AIR-6	Construction and operational activities would not create objectionable odors affecting a substantial number of people.	Class III
Tule Wind Alternative 4, Gen-Tie Route 3 Underground with Collector Substation/O&M Facility on Rough Acres Ranch		
TULE-AIR-1	Construction would generate dust and exhaust emissions of criteria pollutants and toxic air contaminants.	Class I
TULE-AIR-2	Operation, maintenance, and inspections would generate dust and exhaust emissions of criteria pollutants and toxic air contaminants.	Class III
TULE-AIR-3	Construction and decommissioning would not generate exhaust emissions of VOC and NO_x that would exceed the general conformity de minimis thresholds.	Class III
TULE-AIR-4	Construction and operational activities would not conflict with or obstruct the implementation of applicable local air quality plans.	Class III

Table D.11-19 (Continued)

Impact No.	Description	CEQA Classification
TULE-AIR-5	Construction and operational activities would not expose sensitive receptors to substantial pollutant concentrations.	Class II
TULE-AIR-6	Construction and operational activities would not create objectionable odors affecting a substantial number of people.	Class III
Tule Wind Alternative 5, Reduction in Turbines		
TULE-AIR-1	Construction would generate dust and exhaust emissions of criteria pollutants and toxic air contaminants.	Class I
TULE-AIR-2	Operation, maintenance, and inspections would generate dust and exhaust emissions of criteria pollutants and toxic air contaminants.	Class III
TULE-AIR-3	Construction and decommissioning would not generate exhaust emissions of VOC and NO_x that would exceed the general conformity de minimis thresholds.	Class III
TULE-AIR-4	Construction and operational activities would not conflict with or obstruct the implementation of applicable local air quality plans.	Class III
TULE-AIR-5	Construction and operational activities would not expose sensitive receptors to substantial pollutant concentrations.	Class II
TULE-AIR-6	Construction and operational activities would not create objectionable odors affecting a substantial number of people.	Class III

D.11.5.1 Tule Wind Alternative 1, Gen-Tie Route 2 with Collector Substation/O&M Facility on Rough Acres Ranch

Environmental Setting/Affected Environment

Under this alternative, the proposed Tule Wind Project would consist of 128 turbines and the ~~'s~~ collector substation, ~~and~~ operations and maintenance (O&M) facility, and temporary concrete batch plant would be relocated from BLM-~~administered~~managed land in the McCain ~~National Cooperative Land and Wildlife Management A~~Valley area to County of San Diego jurisdictional land on Rough Acres Ranch. Also, the proposed overhead collector line located west of Lost Valley Rock would be relocated to east of Lost Valley Rock and constructed within the proposed Tule Wind Project 138 kV alignment that would be vacated as a result of the O&M facility and collector substation location shift. Proposed turbines would be located in the same location as identified in the proposed Tule Wind Project. The relocation of the collector substation and O&M facility to Rough Acres Ranch would result in a shorter proposed 138 kV transmission line route and a longer overhead cable collector system.

As this alternative would still be located with the SDAB, the environmental setting would be the same as previously identified for the proposed Tule Wind Project outlined in Sections D.11.1 and D.11.2.

Environmental Impacts/Environmental Effects

Direct and Indirect (*Note: cumulative effects are addressed in Section F of this EIR/EIS*)

Impact AIR-1: Compared to the proposed Tule Wind Project, this alternative would be similar in construction activities, worker crews, and construction schedule. Therefore, impacts associated with temporary construction impacts to air quality would essentially be the same as those identified for the proposed Tule Wind Project in Section D.11.3.3. As shown in Table D.11-9 and reflecting the expected emission rates from the site alternative, the alternative would be expected to remain below the daily significance thresholds for criteria air pollutants for CO and SO_x. Construction-related emissions would exceed the VOC, NO_x, PM_{10}, and $PM_{2.5}$ thresholds, however, and the alternative would result in an unavoidable adverse impact to air quality under NEPA~~; therefore, mitigation has been provided~~. ~~Implementation of~~ Mitigation Measures AQ-1 and AQ-2 would reduce criteria pollutant emissions; however, identified impacts cannot be mitigated. Under CEQA, impacts would remain significant and cannot be mitigated to a level that is considered less than significant (Class I).

Decommissioning activities would be expected to result in substantially lower equipment- and vehicle-related emissions due to more stringent off-road engine and motor vehicle standards (e.g., all off-road diesel engines in 30 years will meet Tier 4 standards at a minimum). Fugitive dust emissions, however, would likely be similar to those experienced during construction activities; therefore, they would result in an unavoidable adverse impact under NEPA. ~~Under CEQA, unmitigated impacts would be significant. Implementation of~~ Mitigation Measure AQ-1 would reduce this impact; however, the impacts cannot be mitigated. Under CEQA, impacts would be significant and cannot be mitigated to a level that is considered less than significant (Class I).

Impacts AIR-2 through AIR-6: Impacts AIR-2 through AIR-6 would reflect impact findings previously discussed in Section D.11.3.3 for the proposed Tule Wind Project. Expected operational emissions are shown in Table D.11-14 and would not result in adverse impacts from operational activities under NEPA.~~; therefore,~~ I~~i~~mpacts would be considered less than significant under CEQA (Class III). The project alternative would be in compliance with the general conformity requirements as shown in Table D.11-17, as the annual emissions of VOC and NOx would not exceed the de minimis thresholds as a result of construction or decommissioning. Impacts, therefore, would ~~not~~ be adverse but mitigated under NEPA and would be considered less than significant under CEQA (Class III). This alternative would not conflict with local air quality attainment or maintenance plans to achieve or maintain federal AAQS. While there would be a change in land use from that assumed in development of the SDAB air quality plans, the resultant air emissions would not be substantially different (e.g., minimal vehicle trips would be associated with both the existing and proposed land use

designations). Thus, this alternative would not conflict with local air quality attainment or maintenance plans, and impacts would not be adverse under NEPA. Under CEQA, impacts would be considered less than significant (Class III). The sensitive receptors located closest to the project alternative area are the residents along McCain Valley Road and Ribbonwood Road and residents in the community of Boulevard located south of I-8. Construction-related emissions would be generally short term in duration, and operational emissions associated with the project would be negligible. Any impacts to nearby sensitive receptors would be reduced to a less-than-significant level under CEQA (Class II) with the implementation of aforementioned Mitigation Measures AQ-1 and AQ-2, most notably implementation of controls for fugitive dust emissions. Impacts to sensitive receptors would not be adverse under NEPA. Odor impacts are unlikely, and no adverse impacts would occur under NEPA. Under CEQA, impacts would be considered less than significant (Class III).

D.11.5.2 Tule Wind Alternative 2, Gen-Tie Route 2 Underground with Collector Substation/O&M Facility on Rough Acres Ranch

Environmental Setting/Affected Environment

Section D.11.5.1 describes the existing environmental setting relevant to air quality associated with the relocation of the collector substation, ~~and~~ O&M facility, and temporary concrete batch plant to Rough Acres Ranch, and the subsequent shortened 138 kV transmission line route and extended collector cable system (which includes the relocation of the proposed overhead collector line from west of Lost Valley Rock to east of Lost Valley Rock) to the relocated collector substation. Similar to Tule Wind Alternative 1, Gen-Tie Route 2 with Collector Substation/O&M Facility on Rough Acres Ranch (discussed in Section D.11.5.1), this alternative would consist of 128 turbines. Because this alternative would only underground the alternate 138 kV transmission line, the existing air quality environmental setting would be the same as described in Section D.11.5.1.

Environmental Impacts/Environmental Effects

Direct and Indirect (*Note: cumulative effects are addressed in Section F of this EIR/EIS*)

Impact AIR-1: During construction, temporary soil disturbance between the relocated collector substation and the rebuilt Boulevard Substation would be greater under this alternative (when compared to the proposed Tule Wind Project) due to open trenching for approximately ~~4.1~~3.8 miles along the gen-tie line alignment. Although the 138 kV transmission line associated with this alternative would be shorter in length than that of the overhead gen-tie line associated with the proposed Tule Wind Project, open trenching would be more invasive than excavation for transmission line poles.

This additional trenching activity and soil disturbance required to underground the alternative 138 kV transmission line would slightly increase construction-generated emissions for criteria pollutants when compared to the proposed Tule Wind Project, resulting from both trenching equipment emissions and an increase in fugitive dust levels. As such, construction-related emissions would be expected to remain below the daily significance thresholds for criteria air pollutants for CO and SO_x; however, construction-related emissions would exceed the VOC, NO_x, PM_{10}, and $PM_{2.5}$ thresholds. Exceedence of these thresholds would result in an unavoidable adverse impact to air quality under NEPA~~; therefore, mitigation has been provided~~. ~~Implementation of~~ Mitigation Measures AQ-1 and AQ-2 would reduce criteria pollutant emissions; however, the impacts cannot be mitigated. Under CEQA, impacts would be significant and cannot be mitigated to a level that is considered less than significant (Class I).

Decommissioning activities would be expected to result in substantially lower equipment- and vehicle-related emissions due to more stringent off-road engine and motor vehicle standards (e.g., all off-road diesel engines in 30 years will meet Tier 4 standards at a minimum). Fugitive dust emissions, however, would likely be similar to those experienced during construction activities; therefore, they would result in an unavoidable adverse impact under NEPA. ~~Under CEQA, unmitigated impacts would be significant. Implementation of~~ Mitigation Measure AQ-1 would reduce this impact; however, the impacts cannot be mitigated. Under CEQA, impacts would be significant and cannot be mitigated to a level that is considered less than significant (Class I).

Impacts AIR-2 through AIR-6: Impacts AIR-2 through AIR-6 would reflect impact findings previously discussed in Section D.11.3.3 for the proposed Tule Wind Project. O&M and inspection procedures would essentially be the same as the relocation of the above-grade collector substation and O&M facility to Rough Acres Ranch as described in Section D.11.5.1. Expected operational emissions are shown in Table D.11-14 and would not result in adverse impacts from operational activities under NEPA. Under CEQA, impacts would be considered less than significant (Class III). The project alternative would be in compliance with the general conformity requirements, as shown in Table D.11-17, for the annual emissions of VOC and NO_x, and would not exceed the de minimis thresholds as a result of construction or decommissioning. Impacts related to general conformity requirements would not be adverse under NEPA, and under would be considered less than significant (Class III). This alternative would not conflict with local air quality attainment or maintenance plans to achieve or maintain federal AAQS. While there would be a change in land use from that assumed in development of the SDAB air quality plans, the resultant air emissions would not be substantially different (e.g., minimal vehicle trips would be associated with both the existing and proposed land use designations). Thus, this alternative would not conflict with local air quality attainment or maintenance plans and would not result in an adverse impact under NEPA. Under CEQA, impacts would be

considered less than significant (Class III). The sensitive receptors located closest to the project alternative area are the residents along McCain Valley and Ribbonwood roads and residents in the community of Boulevard located south of I-8. Construction-related emissions would be generally short term in duration, and operational emissions associated with the project would be negligible. Any impacts to nearby sensitive receptors would be reduced to a less-than-significant level under CEQA (Class II) with the implementation of aforementioned Mitigation Measures AQ-1 and AQ-2, most notably implementation of controls for fugitive dust emissions. Impacts to sensitive receptors would, ~~therefore, not~~ be adverse but mitigated under NEPA. Odor impacts are unlikely, and impacts would not be adverse under NEPA and would be considered less than significant under CEQA (Class III).

D.11.5.3 Tule Wind Alternative 3, Gen-Tie Route 3 with Collector Substation/O&M Facility on Rough Acres Ranch

Environmental Setting/Affected Environment

Under this alternative, the Tule Wind Project's collector substation, ~~and~~ O&M facility, and temporary concrete batch plant would be relocated from BLM-~~administered~~managed land in the McCain ~~National Cooperative Land and Wildlife Management A~~Valley area to County of San Diego jurisdictional land on Rough Acres Ranch. Also, the proposed overhead collector line located west of Lost Valley Rock would be relocated to east of Lost Valley Rock and constructed within the proposed Tule Wind Project 138 kV alignment that would be vacated as a result of the O&M facility and collector substation location shift. Relocation of the collector substation and O&M facility to Rough Acres Ranch would result in a shorter proposed 138 kV transmission line route (approximately 5.4 miles) and a longer overhead cable collector system. Lastly, this alternative would consist of 128~~Proposed~~ turbines that would be located in the same location as identified in the proposed Tule Wind Project. ~~The relocation of the collector substation and O&M facility to Rough Acres Ranch would result in a shorter proposed 138 kV transmission route (approximately 5.4 miles) and a longer overhead cable collector system.~~

The environmental setting would remain the same as described in Section D.11.5.1, as the alternative would remain within the SDAB.

Environmental Impacts/Environmental Effects

Direct and Indirect (*Note: cumulative effects are addressed in Section F of this EIR/EIS*)

Impact AIR-1: Construction of this alternative would temporarily increase exhaust emissions of criteria pollutants along the proposed alternative route as a result of heavy construction equipment and an increased vehicle presence along Ribbonwood Road and Old Highway 80 and the resulting dust generated by construction activities. As shown in Table D.11-9, reflecting the

expected emission rates from the site alternative, this alternative would be expected to remain below the daily significance thresholds for criteria air pollutants for CO and SO_x; however, construction-related emissions would exceed the VOC, NO_x, PM_{10}, and $PM_{2.5}$ thresholds. As such, the alternative would result in an unavoidable adverse impact to air quality under NEPA~~; therefore, mitigation has been provided~~. ~~Implementation of~~ Mitigation Measures AQ-1 and AQ-2 would reduce criteria pollutant emissions; however, construction-related impacts cannot be mitigated. Under CEQA, impacts would be significant and cannot be mitigated to a level that is considered less than significant (Class I).

Decommissioning activities would be expected to result in substantially lower equipment- and vehicle-related emissions due to more stringent off-road engine and motor vehicle standards (e.g., all off-road diesel engines in 30 years will meet Tier 4 standards at a minimum). Fugitive dust emissions, however, would likely be similar to those experienced during construction activities; therefore, they would result in an unavoidable adverse impact under NEPA. ~~Under CEQA, unmitigated impacts would be significant. Implementation of~~ Mitigation Measure AQ-1 would reduce this impact; however, the impacts cannot be mitigated. Under CEQA, impacts would be significant and cannot be mitigated to a level that is considered less than significant (Class I).

Impact AIR-5: Sensitive receptors at or near project components that could be temporarily disturbed during construction of the Tule Wind Alternative Gen-Tie 3 with Collector Substation/O&M Facility on Rough Acres Ranch include wilderness and recreational lands (BLM-managed lands~~ McCain National Cooperative Land and Wildlife Management Area,~~ including the Lark Canyon Off-Highway Vehicle (OHV) Area), public roadways, a private airstrip, commercial businesses, public facilities (Boulevard Volunteer Fire Department and San Diego County Sheriff's Department Substation-Boulevard), an airstrip, a school (Clover Flat Elementary), a motel (Lux Inn), and rural residences. Impacts to wilderness and recreation, agricultural resources, transportation facilities, and public services are discussed in Sections D.5 (Wilderness and Recreation), D.6 (Agriculture), D.9 (Transportation and Traffic), and D.14 (Public Services and Utilities), respectively. Therefore, sensitive receptors that could be temporarily disturbed during construction consist of a school (Clover Flat Elementary School), a motel (Lux Inn), and rural residences. Other possible receptors that would be temporarily impacted by construction of the alternative include commercial uses adjacent to Old Highway 80 in Boulevard.

Construction emissions would be temporary and short term in nature, and would be localized along the transmission line route. Additionally, impacts that could potentially impact nearby sensitive receptors would be reduced to a less-than-significant level under CEQA (Class II) with the implementation of Mitigation Measures AQ-1 and AQ-2, as described in Section D.11.3.3,

most notably implementation of controls for fugitive dust emissions. Impacts to sensitive receptors would ~~not~~ be adverse but mitigated under NEPA.

Impacts AIR-2, AIR-3, AIR-4, and AIR-6: Impacts AIR-2 through AIR-4 and AIR-6 would reflect impact findings previously discussed in Section D.11.3.3 for the proposed Tule Wind Project. O&M and inspection procedures would essentially be the same as the relocation of the above-grade collector substation and O&M facility to Rough Acres Ranch, as described in Section D.11.5.1. Throughout the operation of the project, new vehicle trips are not anticipated to increase substantially. Therefore, pollutant emissions associated with the operation of the project would be negligible, and impacts would not be adverse under NEPA. Under CEQA, impacts would be considered less than significant (Class III). The project alternative would be in compliance with the general conformity requirements and would not conflict with local air quality attainment or maintenance plans to achieve or maintain federal ambient air quality standards. As shown in Table D.11-17, the annual emissions of VOC and NO_x would not exceed the de minimis thresholds as a result of construction or decommissioning; therefore, impacts regarding de minimis thresholds would not be adverse under NEPA and would be considered less than significant under CEQA (Class III). Regarding applicable air quality plans, while there would be a change in land use from that assumed in development of the SDAB air quality plans, the resultant air emissions would not be substantially different (e.g., minimal vehicle trips would be associated with both the existing and proposed land use designations). Thus, this alternative would not conflict with local air quality attainment or maintenance plans and would not result in an adverse impact under NEPA. Impacts would be considered less than significant under CEQA (Class III). Because construction-related emissions would be generally short term in duration, and operational emissions associated with the project would be negligible, this alternative would not expose sensitive receptors to substantial air pollutant concentrations or objectionable odors. Any impacts to nearby sensitive receptors would be reduced to a less-than-significant level under CEQA (Class II) with the implementation of aforementioned Mitigation Measures AQ-1 and AQ-2, most notably implementation of controls for fugitive dust emissions. Impacts to sensitive receptors would ~~therefore not~~ be adverse but mitigated under NEPA. Odor impacts are unlikely, and impacts would not be adverse under NEPA. Under CEQA, impacts would be considered less than significant (Class III).

D.11.5.4 Tule Wind Alternative 4, Gen-Tie Route 3 Underground with Collector Substation/O&M Facility on Rough Acres Ranch

Environmental Setting/Affected Environment

Section D.11.5.3 describes the environmental setting associated with relocation of the collector substation and O&M facility, as well as the temporary concrete batch plant, to Rough Acres Ranch, and the subsequent shortened 138 kV transmission line route and extended collector

cable system (which includes the relocation of the proposed overhead collector line from west of Lost Valley Rock to east of Lost Valley Rock). Similar to Tule Wind Alternative 3, Gen-Tie Route 3 with Collector Substation/O&M Facility on Rough Acres Ranch (discussed in Section D.11.5.3), this alternative would consist of 128 turbines. Section D.11.5.3 also describes the existing air quality setting associated with the Tule Wind Alternative Gen-Tie Route 3 with Collector Substation/O&M Facility on Rough Acres Ranch. Because this alternative would only underground the 138 kV transmission line, the existing air quality setting would be the same as described in Section D.11.5.3.

Environmental Impacts/Environmental Effects

Direct and Indirect (*Note: cumulative effects are addressed in Section F of this EIR/EIS*)

Impact AIR-1: Additional trenching activity and soil disturbance associated with this alternative required to underground the alternative 138 kV transmission line would slightly increase construction-generated emissions for criteria pollutants when compared to the proposed Tule Wind Project, resulting from both trenching equipment emissions and an increase in fugitive dust levels. As such, construction-related emissions would be expected to remain below the daily significance thresholds for criteria air pollutants for CO and SO_x. However, construction-related emissions would exceed the VOC, NO_x, PM_{10}, and $PM_{2.5}$ thresholds, and the alternative would result in an unavoidable adverse impact to air quality under NEPA~~; therefore, mitigation has been provided~~. ~~Implementation of~~ Mitigation Measures AQ-1 and AQ-2 would reduce criteria pollutant emissions; however, impacts cannot be mitigated. Under CEQA, impacts would remain significant and cannot be mitigated to a level that is considered less than significant (Class I).

Decommissioning activities would be expected to result in substantially lower equipment- and vehicle-related emissions due to more stringent off-road engine and motor vehicle standards (e.g., all off-road diesel engines in 30 years will meet Tier 4 standards at a minimum). Fugitive dust emissions, however, would likely be similar to those experienced during construction activities; therefore, they would result in an adverse impact under NEPA. ~~Under CEQA, unmitigated impacts would be significant. Implementation of~~ Mitigation Measure AQ-1 would reduce this impact; however, the impacts cannot be mitigated. Under CEQA, impacts would be significant and cannot be mitigated to a level that is considered less than significant (Class I).

Impacts AIR-2 through AIR-6: Impacts AIR-2 through AIR-6 would reflect impact findings previously discussed in Section D.11.3.3 for the proposed Tule Wind Project. Operation, maintenance, and inspection procedures would essentially be the same as the Alternative Gen-Tie Route 3 with Collector Substation/O&M Facility on Rough Acres, as described in Section D.11.5.3. Throughout the operation of the project, new vehicle trips are not anticipated to increase substantially. Therefore, pollutant emissions associated with the operation of the alternative would

not be adverse under NEPA. Under CEQA, operational impacts would be considered less than significant (Class III). The project alternative would be in compliance with the general conformity requirements and would not conflict with local air quality attainment or maintenance plans to achieve or maintain federal ambient air quality standards. As shown in Table D.11-17, the annual emissions of VOC and NO_x would not exceed the de minimis thresholds as a result of construction or decommissioning. As such, no adverse impacts would occur under NEPA and under CEQA, impacts would be considered less than significant (Class III). Additionally, while there would be a change in land use from that assumed in development of the SDAB air quality plans, the resultant air emissions would not be substantially different (e.g., minimal vehicle trips would be associated with both the existing and proposed land use designations). Thus, this alternative would not conflict with local air quality attainment or maintenance plans and no adverse impacts would occur under NEPA. Under CEQA, impacts would be considered less than significant (Class III). Lastly, because construction-related emissions would be generally short term in duration and operational emissions associated with the project would be negligible, this alternative would not expose sensitive receptors to substantial air pollutant concentrations or objectionable odors. Any impacts to nearby sensitive receptors would be reduced to a less-than-significant level under CEQA (Class II) with the implementation of aforementioned Mitigation Measures AQ-1 and AQ-2, most notably implementation of controls for fugitive dust emissions. Impacts to sensitive receptors would ~~therefore not~~ be adverse but mitigated under NEPA. Odor impacts are unlikely and impacts would not be adverse under NEPA. Under CEQA, impacts would be considered less than significant (Class III).

D.11.5.5 Tule Wind Alternative 5, Reduction in Turbines

Environmental Setting/Affected Environment

The environmental setting under this alternative would be the same as described in Sections D.11.1 and D.11.2. Under this alternative, the proposed Tule Wind Project would consist of 65 turbines with the removal of 63 specific turbines to include six turbines adjacent to the In-Ko-Pah ACEC being S1, R4, (R8), R8, R9, and R10, and 57 turbines on the western side of the project site, including all turbines in the J, K, L, M, N, P, and Q strings. ~~This alternative to the proposed Tule Wind Project is essentially the same with the exception that this alternative would remove 62 out of the proposed 134 turbine locations.~~

Environmental Impacts/Environmental Effects

Direct and Indirect (*Note: cumulative effects are addressed in Section F of this EIR/EIS*)

Impact AIR-1: Temporary construction air quality impacts under this alternative would be reduced when compared to the proposed Tule Wind Project. Due to the reduction in turbines and resulting reduction in the length of the necessary cable collector system, the construction

schedule would likely be shortened (original proposed Tule Wind Project construction schedule is expected to take between 18 and 24 months). As shown in Table D.11-9, the Tule Wind Project is expected to remain below the daily significance thresholds for criteria air pollutants for CO and SO_x. However, construction-related emissions would exceed the VOC, NO_x, PM_{10}, and $PM_{2.5}$ thresholds, and the alternative would result in an unavoidable adverse impact to air quality under NEPA~~; therefore, mitigation has been provided~~. ~~Implementation of~~ Mitigation Measures AQ-1 and AQ-2 would reduce criteria pollutant emissions; however, impacts cannot be mitigated. Under CEQA, impacts would remain significant and cannot be mitigated to a level that is considered less than significant (Class I).

Decommissioning activities would be expected to result in substantially lower equipment- and vehicle-related emissions due to more stringent off-road engine and motor vehicle standards (e.g., all off-road diesel engines in 30 years will meet Tier 4 standards at a minimum). Fugitive dust emissions, however, would likely be similar to those experienced during construction activities; therefore, they would result in an unavoidable adverse impact under NEPA. ~~Under CEQA, unmitigated impacts would be significant. Implementation of~~ Mitigation Measure AQ-1 would reduce this impact; however, the impacts cannot be mitigated. Under CEQA, impacts would be significant and cannot be mitigated to a level that is considered less than significant (Class I).

Impacts AIR-2 through AIR-6: Impacts AIR-2 through AIR-6 would be similar to impact findings previously discussed in Section D.11.3.3 for the proposed Tule Wind Project. Expected operational emissions are shown in Table D.11-14 and reflect similar alternative emissions from reduced wind turbine locations, as operational activities and requirements would be essentially the same as the proposed Tule Wind Project. During operation, the alternative would be expected to be supported by 12 permanent full-time employees utilizing light duty automobiles and trucks similar to the original proposed wind projects. As operational impacts would not exceed thresholds, impacts would not be adverse under NEPA. Under CEQA, impacts would be considered less than significant (Class III). As previously mentioned, the relevant de minimis thresholds for the SDAB are 100 tons per year for VOCs (O_3 precursor) and NO_x (O_3 precursor). Table D.11-17 shows the annual emission rates as they pertain to general conformity requirements for the Tule Wind Project, which would be lower than those for the reduced turbine alternative. Therefore, emissions would not exceed de minimis thresholds and would not result in an adverse impact under NEPA. Under CEQA, impacts would be considered less than significant (Class III). Additionally, while there would be a change in land use from that assumed in development of the SDAB air quality plans, the resultant air emissions would not be substantially different (e.g., minimal vehicle trips would be associated with both existing and proposed land use designations). Thus, this alternative would not conflict with local air quality attainment or maintenance plans and impacts would not be adverse under NEPA. Under CEQA,

impacts would be considered less than significant (Class III). Because construction-related emissions would be generally short term in duration, and operational emissions associated with the project would be negligible, this alternative would not expose sensitive receptors to substantial air pollutant concentrations or objectionable odors. Any impacts to nearby sensitive receptors would be reduced to a less-than-significant level under CEQA (Class II) with the implementation of aforementioned Mitigation Measures AQ-1 and AQ-2, most notably implementation of controls for fugitive dust emissions. Impacts to sensitive receptors would therefore ~~not~~ be adverse but mitigated under NEPA. Odor impacts are unlikely and impacts would not be adverse under NEPA and would be considered less than significant under CEQA (Class III).

D.11.6 ESJ Gen-Tie Project Alternatives

Table D.11-20 summarizes the impacts and classification of impacts under CEQA that have been identified for the ESJ Gen-Tie Project alternatives. See definitions for Class I, II, III, IV, and No Impact in Section D.1.2.2, CEQA vs. NEPA Criteria, of this EIR/EIS. Because this project is being analyzed in an EIS under NEPA, there is no requirement for federal agencies to classify impacts or to determine the significance of impacts; rather, the BLM must take a "hard look" at the impacts of the Proposed PROJECT and its alternatives and determine whether they are adverse. Therefore, while these criteria are used as indicators to frame the analysis of the impacts under NEPA, any determination of significance is a determination under CEQA, not NEPA.

Table D.11-20
Air Quality Impacts Identified for ESJ Gen-Tie Project Alternatives

Impact No.	Description	CEQA Classification
ESJ 230 kV Gen-Tie Underground Alternative		
ESJ-AIR-1	Construction would generate dust and exhaust emissions of criteria pollutants and toxic air contaminants.	Class I
ESJ-AIR-2	Operation, maintenance, and inspections would generate dust and exhaust emissions of criteria pollutants and toxic air contaminants.	Class III
ESJ-AIR-3	Construction would not generate exhaust emissions of VOC and NO_x that would exceed the general conformity de minimis thresholds.	Class III
ESJ-AIR-4	Construction and operational activities would not conflict with or obstruct the implementation of applicable local air quality plans.	Class III
ESJ-AIR-5	Construction and operational activities would not expose sensitive receptors to substantial pollutant concentrations.	Class III
ESJ-AIR-6	Construction and operational activities would not create objectionable odors affecting a substantial number of people.	Class III
ESJ Gen-Tie Overhead Alternative Alignment		
ESJ-AIR-1	Construction would generate dust and exhaust emissions of criteria pollutants and toxic air contaminants.	Class I

Table D.11-20 (Continued)

Impact No.	Description	CEQA Classification
ESJ-AIR-2	Operation, maintenance, and inspections would generate dust and exhaust emissions of criteria pollutants and toxic air contaminants.	Class III
ESJ-AIR-3	Construction would not generate exhaust emissions of VOC and NO_x that would exceed the general conformity de minimis thresholds.	Class III
ESJ-AIR-4	Construction and operational activities would not conflict with or obstruct the implementation of applicable local air quality plans.	Class III
ESJ-AIR-5	Construction and operational activities would not expose sensitive receptors to substantial pollutant concentrations.	Class III
ESJ-AIR-6	Construction and operational activities would not create objectionable odors affecting a substantial number of people.	Class III
ESJ Gen-Tie Underground Alternative Alignment		
ESJ-AIR-1	Construction would generate dust and exhaust emissions of criteria pollutants and toxic air contaminants.	Class I
ESJ-AIR-2	Operation, maintenance, and inspections would generate dust and exhaust emissions of criteria pollutants and toxic air contaminants.	Class III
ESJ-AIR-3	Construction would not generate exhaust emissions of VOC and NO_x that would exceed the general conformity de minimis thresholds.	Class III
ESJ-AIR-4	Construction and operational activities would not conflict with or obstruct the implementation of applicable local air quality plans.	Class III
ESJ-AIR-5	Construction and operational activities would not expose sensitive receptors to substantial pollutant concentrations.	Class III
ESJ-AIR-6	Construction and operational activities would not create objectionable odors affecting a substantial number of people.	Class III

D.11.6.1 ESJ Gen-Tie Alternative Undergrounding 230 kV Gen-Tie Transmission Line

Environmental Setting/Affected Environment

Sections D.11.1 and D.11.2 describe the existing air quality setting associated with the ESJ Gen-Tie Project, which considers both a 500 kV gen-tie and a 230 kV gen-tie option. Because this alternative would select and construct the 230 kV gen-tie option underground within the same project area as the ESJ Gen-Tie Project, the existing air quality setting would be the same as described in Sections D.11.1 and D.11.2.

Environmental Impacts/Environmental Effects

Direct and Indirect (*Note: cumulative effects are addressed in Section F of this EIR/EIS*)

Impact AIR-1: Construction activities would differ marginally from the proposed ESJ Gen-Tie Project, as open trenching operations would be required to underground the 230 kV transmission line along the same route as the proposed ESJ Gen-Tie Project rather than constructing poles and

line route overhead. This additional trenching activity and soil disturbance would slightly increase construction-generated emissions for criteria pollutants when compared to the proposed gen-tie project, resulting from both trenching equipment emissions and an increase in fugitive dust levels.

Emissions from the construction phase would be minimal, temporary in nature, and localized, resulting in pollutant emissions below the thresholds for VOCs, NO_x, CO, SO_x, and $PM_{2.5}$. However, fugitive dust emissions (PM_{10}) would exceed the significance thresholds under this alternative, as open trenching activities would increase particulate matter emissions and fugitive dust resulting in an unavoidable adverse impact (under NEPA)~~; therefore, mitigation has been provided~~. ~~Implementation of~~ Mitigation Measure AQ-1, which includes actions aimed at reducing particulate matter emissions, would reduce PM_{10} emissions; however, impacts cannot be mitigated. Under CEQA, impacts would remain significant and cannot be mitigated to a level that is considered less than significant (Class I).

Impacts AIR-2 through AIR-6: Impacts AIR-2 through AIR-6 would be similar to impact findings previously discussed in Section D.11.3.3 for the proposed ESJ Gen-Tie Project. O&M and inspection under this alternative would essentially be the same. Upon completion of construction activities, periodic vehicle trips would be required for maintenance and inspection of the 230 kV transmission line underground alternative. Operation of this alternative would result in approximately two to three workers accessing the site on a periodic basis. As such, operational emission levels would remain well below the significance thresholds and impacts would not be adverse under NEPA. Under CEQA, operational impacts would be considered less than significant (Class III). Because this EIR/EIS is related only to a local action by the County of San Diego for the ESJ Gen-Tie Project and any associated alternatives to this project, general conformity requirements would not apply. Moreover, while there would be a change in land use from that assumed in development of the SDAB air quality plans, the resultant air emissions would not be substantially different (e.g., minimal vehicle trips would be associated with both the existing and proposed land use designations). Thus, this alternative would not conflict with local air quality attainment or maintenance plans and no adverse impacts would occur under NEPA. Under CEQA, impacts would be considered less than significant (Class III). Project construction impacts associated with this alternative would be slightly reduced due to greater distance between project components and nearby residents; therefore, impacts to sensitive receptors resulting from criteria pollutants and objectionable odors would not be adverse under NEPA. Under CEQA, impacts would be considered less than significant (Class III).

D.11.6.2 ESJ Gen-Tie Overhead Alternative Alignment

This alternative would not affect the impact conclusions resulting from the implementation of the proposed Tule Wind Project as discussed in Section D.11.3.3. This alternative assumes the implementation of the ECO Substation Alternative Site and that the air quality impacts identified in Section D.11.4.1 (ECO Substation Alternative Site) would occur.

Environmental Setting/Affected Environment

Sections D.11.1 and D.11.2 describe the existing setting associated with the ESJ Gen-Tie Project, which considers both a 500 kV gen-tie and a 230 kV gen-tie option. This alternative would shift the project approximately 700 feet to the east. The existing air quality setting would be the same as described in Sections D.11.1 and D.11.2.

Environmental Impacts/Environmental Effects

Direct and Indirect (*Note: cumulative effects are addressed in Section F of this EIR/EIS*)

Impact AIR-1: Impacts resulting from this alternative would reflect impact findings previously discussed in Section D.11.3.3 for the proposed ESJ Gen-Tie Project. As such, construction activities, worker crews, construction schedule, and operational activities would essentially be the same as the proposed ESJ Gen-Tie Project. Emissions from the construction phase would be minimal, temporary in nature, and localized, resulting in pollutant emissions below the thresholds for VOCs, NO_x, CO, SO_x, and $PM_{2.5}$. However, fugitive dust emissions (PM_{10}) would exceed the significance thresholds under this alternative, as open trenching activities would increase particulate matter emissions and fugitive dust, resulting in an unavoidable adverse impact under NEPA~~; therefore, mitigation has been provided~~. ~~Implementation of~~ Mitigation Measure AQ-1, which includes actions aimed at reducing particulate matter emissions, would reduce PM_{10} emissions; however, impacts cannot be mitigated. Under CEQA, impacts would remain significant and cannot be mitigated to a level that is considered less than significant (Class I).

Impacts AIR-2 through AIR-6: Impacts AIR-2 through AIR-6 would be similar to impact findings previously discussed in Section D.11.3.3 for the proposed ESJ Gen-Tie Project. O&M and inspection under this alternative would essentially be the same. Upon completion of construction activities, periodic vehicle trips would be required for maintenance and inspection of the alternative. Operation of this alternative would result in approximately two to three workers accessing the site on a periodic basis. As such, operational emission levels would remain well below the significance thresholds and no adverse impacts would occur under NEPA. Under CEQA, operational impacts would be considered less than significant (Class III). Because this EIR/EIS is related only to a local action by the County of San Diego for the ESJ Gen-Tie Project

and any associated alternatives to this project, general conformity requirements would not apply. Moreover, while there would be a change in land use from that assumed in development of the SDAB air quality plans, the resultant air emissions would not be substantially different (e.g., minimal vehicle trips would be associated with both the existing and proposed land use designations). Thus, this alternative would not conflict with local air quality attainment or maintenance plans and no adverse impacts would occur under NEPA. Under CEQA, impacts would be considered less than significant (Class III). Project construction impacts associated with this alternative would be slightly reduced due to greater distance between project components and nearby residents; therefore, impacts to sensitive receptors resulting from criteria pollutants and objectionable odors would not be adverse under NEPA. Under CEQA, impacts would be considered less than significant (Class III).

D.11.6.3 ESJ Gen-Tie Underground Alternative Alignment

This alternative would not affect the impact conclusions resulting from the implementation of the proposed Tule Wind Project as discussed in Section D.11.3.3. This alternative assumes the implementation of the ECO Substation Alternative Site and that the air quality impacts identified in Section D.11.4.1 (ECO Substation Alternative Site) would occur.

Environmental Setting/Affected Environment

Sections D.11.1 and D.11.2 describe the existing setting associated with the ESJ Gen-Tie Project, which considers both a 500 kV gen-tie and a 230 kV gen-tie option. This alternative would shift the 230 kV transmission line approximately 700 feet to the east and would underground this alternative alignment. The existing air quality setting would be the same as described in Sections D.11.1 and D.11.2.

Environmental Impacts/Environmental Effects

Direct and Indirect (*Note: cumulative effects are addressed in Section F of this EIR/EIS*)**

Impact AIR-1: Construction activities would differ marginally from the proposed ESJ Gen-Tie Project, as open trenching operations would be required to underground the 230 kV transmission line along the alternative route described in Section D.11.6.2 rather than constructing poles and line route overhead. This additional trenching activity and soil disturbance would slightly increase construction-generated emissions for criteria pollutants when compared to the proposed Gen-Tie project, resulting from both trenching equipment emissions and an increase in fugitive dust levels.

Emissions from the construction phase would be minimal, temporary in nature, and localized, resulting in pollutant emissions below the thresholds for VOCs, NO_x, CO, SO_x, and $PM_{2.5}$. However, fugitive dust emissions (PM_{10}) would exceed the significance thresholds under this

alternative, as open trenching activities would increase particulate matter emissions and fugitive dust, resulting in an unavoidable adverse impact under NEPA~~; therefore, mitigation has been provided~~. ~~Implementation of~~ Mitigation Measure AQ-1, which includes actions aimed at reducing particulate matter emissions, would reduce PM_{10} emissions; however, impacts cannot be mitigated. Under CEQA, impacts would remain significant and cannot be mitigated to a level that is considered less than significant (Class I).

Impacts AIR-2 through AIR-6: Impacts AIR-2 through AIR-6 would be similar to impact findings previously discussed in Section D.11.3.3 for the proposed ESJ Gen-Tie Project. O&M and inspection under this alternative would be essentially the same. Upon completion of construction activities, periodic vehicle trips would be required for maintenance and inspection of the alternative. Operation of this alternative would result in approximately two to three workers accessing the site on a periodic basis. As such, operational emission levels would remain well below the significance thresholds and no adverse impacts would occur under NEPA. Under CEQA, impacts would be considered less than significant (Class III). Because this EIR/EIS is related only to a local action by the County of San Diego for the ESJ Gen-Tie Project and any associated alternatives to this project, general conformity requirements would not apply. Moreover, while there would be a change in land use from that assumed in development of the SDAB air quality plans, the resultant air emissions would not be substantially different (e.g., minimal vehicle trips would be associated with both the existing and proposed land use designations). Thus, this alternative would not conflict with local air quality attainment or maintenance plans and no adverse impacts would occur under NEPA. Under CEQA, impacts would be considered less than significant (Class III). Project construction impacts associated with this alternative would be slightly reduced due to greater distance between project components and nearby residents; therefore, impacts to sensitive receptors resulting from criteria pollutants and objectionable odors would not be adverse under NEPA. Under CEQA, impacts would be less than significant (Class III).

D.11.7 No Project/No Action Alternatives

D.11.7.1 No Project Alternative 1—No ECO Substation, Tule Wind, ESJ Gen-Tie, Campo, Manzanita, or Jordan Wind Energy Projects

Environmental Impacts/Environmental Effects

Impacts AIR-1 through AIR-6: Under the No Project Alternative 1, the ECO Substation, Tule Wind, and ESJ Gen-Tie, as well as the Campo, Manzanita, and Jordon wind energy projects, would not be built, and the existing conditions would remain at these sites.

Air quality impacts resulting from the Proposed PROJECT would not occur.

D.11.7.2 No Project Alternative 2—No ECO Substation Project

Environmental Impacts/Environmental Effects

Impact AIR-1: Under the No Project Alternative 2, none of the construction impacts identified for the ECO Substation Project would occur (refer to Section D.11.3.3 for discussion of impacts associated with the ECO Substation Project). However, the Tule Wind and ESJ Gen-Tie projects would be constructed and would be forced to interconnect with an existing substation or with a new substation expected to be proposed by SDG&E. Impacts associated with the Tule Wind and ESJ Gen-Tie projects would be expected to be similar to those described in Section D.11.3.3 but could vary depending on the point of interconnection and the resulting gen-tie route and length of the Tule Wind and ESJ Gen-Tie projects. Construction-related emissions would be expected to exceed thresholds in this scenario, resulting in an unavoidable adverse impact under NEPA. Even with mitigation as previously identified in Section D.11.3.3, impacts would remain significant and therefore, cannot be mitigated to a level that is considered less than significant under CEQA (Class I).

Impacts AIR-2 through AIR-6: Impacts AIR-2 through AIR-6 would reflect impacts resulting from the Proposed PROJECT due to potential substation upgrades despite a No ECO Substation Project scenario. As such, impacts would be expected to be similar to those described in Section D.11.3.3 for the Proposed PROJECT but could vary depending on the substation location pursued. The removal of the ECO Substation Project would result in fewer operational impacts associated with project components and would reduce the potential for criteria pollutant emissions within the SDAB; however, the Tule Wind and ESJ Gen-Tie projects would be required to interconnect to a substation somewhere in southeastern San Diego County in order to deliver renewable energy to an existing or adopted transmission line. Operational impacts associated with the No Project Alternative 2 would be similar to the proposed Tule Wind and ESJ Gen-Tie projects, which have been determined not to be adverse under NEPA. Under CEQA, operational impacts would be less than significant (Class III).

As the Proposed PROJECT would not conflict with or obstruct the implementation of applicable local air quality plans, it is not likely that the No Project Alternative 2 would conflict with a local air quality plan. While there would be a change in land use from that assumed in development of the SDAB air quality plans, the resultant air emissions would not be substantially different (e.g., minimal vehicle trips would be associated with both the existing and proposed land use designations). Thus, this alternative would not conflict with local air quality attainment or maintenance plans and no adverse impacts would occur under NEPA. Under CEQA, impacts would be considered less than significant (Class III). Additionally, because none of the components of the ECO Substation would be constructed under this alternative, impacts to

sensitive receptors resulting from criteria pollutants or objectionable odors would not be adverse under NEPA. Under CEQA, impacts would considered be less than significant (Class III).

D.11.7.3 No Project Alternative 3—No Tule Wind Project

Environmental Impacts/Environmental Effects

Impacts AIR-1 through AIR-6: Under the No Project Alternative 3, No Tule Wind Project, the amount of criteria pollutant emissions generated by construction activities would be reduced when compared to the Proposed PROJECT. Despite a reduction in pollutant emissions by construction activities, temporary construction impacts to air quality would still be ~~considered~~ unavoidable and adverse under NEPA for NO_x and PM_{10}~~; therefore, mitigation has been provided~~. Mitigation Measures AQ-1 and AQ-2 would be implemented; however, construction-related impacts for this alternative would remain significant and cannot be mitigated to a level that is considered less than significant under CEQA (Class I). Additionally, the amount of criteria pollutant emissions generated by operational and maintenance activities would be reduced when compared to the Proposed PROJECT with the removal of the Tule Wind Project component. Operation-related impacts for this alternative would not be adverse under NEPA. Under CEQA, operational impacts would be considered less than significant (Class III).

Regarding air quality plan compliance, while there would be a change in land use from that assumed in development of the SDAB air quality plans, the resultant air emissions would not be substantially different (e.g., minimal vehicle trips would be associated with both the existing and proposed land use designations). Thus, this alternative would not conflict with local air quality attainment or maintenance plans. In addition, under the No Project Alternative 3, the amount of rural residences temporarily disturbed by construction activities would be reduced when compared to the Proposed PROJECT. Residences adjacent to Ribbonwood Road and east of the rebuilt Boulevard Substation along Old Highway 80 would not be disturbed by construction activities of the ECO Substation and ESJ Gen-Tie projects. APMs for the ECO Substation Project would be implemented as listed in Section D.11.3.2; therefore, impacts to sensitive receptors generated from criteria pollutants and odors would not be adverse under NEPA. Under CEQA, impacts to sensitive receptors would be considered less than significant (Class III).

D.11.7.4 No Project Alternative 4—No ESJ Gen-Tie Project

Environmental Impacts/Environmental Effects

Impacts AIR-1 through AIR-6: Construction-related impacts associated with the proposed ECO Substation and Tule Wind projects would remain under this alternative. If the proposed ESJ Gen-Tie Project were not constructed, it is likely that an alternative gen-tie would be constructed. The impacts associated with this gen-tie would be expected to be similar to those described in

Section D.11.3.3 (exceeding the threshold for PM_{10}), but could vary depending on length of gen-tie line and the location pursued. Mitigation Measures AQ-1 and AQ-2 would be implemented; however, construction impacts generated from the ECO Substation and Tule Wind projects would remain unavoidable and adverse under NEPA. Under CEQA, construction-related emissions would remain significant after mitigation, and impacts cannot be mitigated to a level that is considered less than significant (Class I). Under this alternative, the amount of criteria pollutant emissions generated by operational and maintenance activities would be reduced when compared to the Proposed PROJECT. As such, operational emissions would remain below the significance thresholds and impacts would not be adverse under NEPA. Under CEQA, operational emissions would be considered less than significant (Class III).

Regarding air quality plan compliance, while there would be a change in land use from that assumed in development of the SDAB air quality plans, the resultant air emissions would not be substantially different (e.g., minimal vehicle trips would be associated with both the existing and proposed land use designations). Thus, this alternative would not conflict with local air quality attainment or maintenance plans and no adverse impacts would occur under NEPA. Under CEQA, impacts would be considered less than significant (Class III). Additionally, because impacts to sensitive receptors under the Proposed PROJECT would be less than significant, a similar conclusion can be made for No Project Alternative 4 regarding emissions and odors generated from alternative implementation. No adverse impacts would occur under NEPA and under CEQA impacts to sensitive receptors would be considered less than significant (Class III).

D.11.8 Mitigation Monitoring, Compliance, and Reporting

Table D.11-21 presents the mitigation monitoring, compliance, and reporting program for air quality for the ECO Substation, Tule Wind, and ESJ Gen-Tie projects. Section D.11.9 provides the residual effects.

The proposed Campo, Manzanita, and Jordan wind energy projects would require preparation of a mitigation monitoring, compliance, and reporting program following project-specific environmental review and evaluation under all applicable environmental regulations once sufficient project-level information has been developed. By including these projects as components of the Proposed PROJECT, it allows the lead agencies to further consider broad policy options and develop mitigation measures that may be required for the project-specific impacts at an early stage in the process for the Campo, Manzanita, and Jordan wind energy projects.

Table D.11-21
Mitigation Monitoring, Compliance, and Reporting–ECO Substation, Tule Wind, and ESJ Gen-Tie Projects–Air Quality

ECO Substation Project	
Mitigation Measure	**AQ-1.** The following measures shall be incorporated to reduce fugitive dust and other criteria pollutant emissions during construction activities: • Rock aprons or rattle plates will be installed as needed at the intersection of dirt access roads and paved public roadways to clean the tires of equipment prior to leaving the site. • All active construction areas, unpaved access roads, parking areas, and staging areas will be watered or stabilized with nontoxic soil stabilizers as needed to control fugitive dust. • All public streets will be swept or cleaned with mechanical sweepers if visible soil material is carried onto them by construction activities or vehicles. • Exposed stockpiles (e.g., dirt, sand, etc.) will be covered and/or watered or stabilized with nontoxic soil binders as needed to control emissions. • Trucks transporting bulk materials will be completely covered unless 2 feet of freeboard space from the top of the container is maintained with no spillage and loss of material. In addition, the cargo compartment of all haul trucks will be cleaned and/or washed at the delivery site after removal of the bulk material. • Movement of bulk material handling or transfer will be stabilized prior to handling or at a point of transfer with application of sufficient water, chemical stabilizers, or by sheltering or enclosing the operation and transfer line. • Traffic speeds on unpaved roads and the ROW will be limited to 15 miles per hour. • Vehicle idling time will be limited to a maximum of 5 minutes for vehicles and construction equipment, except where idling is required for the equipment to perform its task. • Road graders used during site development activities will be equipped with a CARB-verified Level 2 diesel emission control strategy or a comparable diesel-control technology that will reduce inhalable particulate matter (PM_{10}) emissions by 50% or more. • If suitable park-and-ride facilities are available in the project vicinity, construction workers will be encouraged to carpool to the job site to the extent feasible. The ability to develop an effective carpool program for the project would depend upon the proximity of carpool facilities to the job site, the geographical commute departure points of construction workers, and the extent to which carpooling would not adversely affect worker show-up time and the project's construction schedule. • All off-road, diesel-powered construction equipment will be kept in good tune and maintained according to the manufacturer's specifications. • Construction equipment will use electric-powered motors where feasible. • The construction contractor will prepare and implement a high-wind dust control plan and terminate soil disturbance when winds exceed 25 miles per hour. • The construction contractor will require 90-day, low-NO_x tune-ups for off-road equipment. • Diesel particulate filters will be utilized on heavy equipment where feasible. • Construction activities will comply with all applicable SDAPCD rules and regulations.
Location	ECO Substation Project site and all project components.
Monitoring/Reporting Action	CPUC and BLM will ensure that these measures are carried out during project construction.
Responsible Agency	CPUC/BLM

Table D.11-21 (Continued)

Timing	Plan in effect throughout construction.
Mitigation Measure	**AQ-2.** All off-road diesel engines with a rated output of greater than 50 horsepower will, at a minimum, meet the Tier 2 California Emissions Standards for Off-Road Compression Ignition Engines. If reasonably available, Tier 3 engines will be employed. SDG&E shall provide verification that the construction fleet meets the requirements identified as part of this mitigation measure.
Location	ECO Substation Project site and all project components.
Monitoring/Reporting Action	CPUC and BLM will ensure that all off-road equipment meets Tier 2 (or Tier 3) standards.
Responsible Agency	CPUC/BLM
Timing	Plan in effect throughout construction.
Tule Wind Project	
Mitigation Measure	**AQ-1.** The following measures shall be incorporated to reduce fugitive dust and other criteria pollutant emissions during construction activities: • Rock aprons or rattle plates will be installed as needed at the intersection of dirt access roads and paved public roadways to clean the tires of equipment prior to leaving the site. • All active construction areas, unpaved access roads, parking areas, and staging areas will be watered or stabilized with nontoxic soil stabilizers as needed to control fugitive dust. • All public streets will be swept or cleaned with mechanical sweepers if visible soil material is carried onto them by construction activities or vehicles. • Exposed stockpiles (e.g., dirt, sand, etc.) will be covered and/or watered or stabilized with nontoxic soil binders as needed to control emissions. • Trucks transporting bulk materials will be completely covered unless 2 feet of freeboard space from the top of the container is maintained with no spillage and loss of material. In addition, the cargo compartment of all haul trucks will be cleaned and/or washed at the delivery site after removal of the bulk material. • Movement of bulk material handling or transfer will be stabilized prior to handling or at a point of transfer with application of sufficient water, chemical stabilizers, or by sheltering or enclosing the operation and transfer line. • Traffic speeds on unpaved roads and the ROW will be limited to 15 miles per hour. • Vehicle idling time will be limited to a maximum of 5 minutes for vehicles and construction equipment, except where idling is required for the equipment to perform its task. • Road graders used during site development activities will be equipped with a CARB-verified Level 2 diesel emission control strategy or a comparable diesel-control technology that will reduce inhalable particulate matter (PM_{10}) emissions by 50% or more. • If suitable park-and-ride facilities are available in the project vicinity, construction workers will be encouraged to carpool to the job site to the extent feasible. The ability to develop an effective carpool program for the project would depend upon the proximity of carpool facilities to the job site, the geographical commute departure points of construction workers, and the extent to which carpooling would not adversely affect worker show-up time and the project's construction schedule. • All off-road, diesel-powered construction equipment will be kept in good tune and maintained according to the manufacturer's specifications. • Construction equipment will use electric-powered motors where feasible. • The construction contractor will prepare and implement a high-wind dust control plan and terminate soil disturbance when winds exceed 25 miles per hour.

Table D.11-21 (Continued)

	• The construction contractor will require 90-day, low-NO_x tune-ups for off-road equipment. • Diesel particulate filters will be utilized on heavy equipment where feasible. • Construction activities will comply with all applicable SDAPCD rules and regulations.
Location	Tule Wind Project site
Monitoring/Reporting Action	BLM, San Diego County, CSLC, BIA, and/or the Ewiiaapaayp Band of Kumeyaay Indians, depending on the jurisdiction where the construction activities are being completed, will ensure that these measures are carried out during project construction.
Responsible Agency	BLM/San Diego County/CSLC/BIA/Ewiiaapaayp Band of Kumeyaay Indians
Timing	Plan in effect throughout construction
Mitigation Measure	**AQ-2.** All off-road diesel engines with a rated output of greater than 50 horsepower will, at a minimum, meet the Tier 2 California Emissions Standards for Off-Road Compression Ignition Engines. If reasonably available, Tier 3 engines will be employed. Tule Wind, LLC ~~Pacific Wind Development~~ shall provide verification that the construction fleet meets the requirements identified as part of this mitigation measure.
Location	Tule Wind Project site.
Monitoring/Reporting Action	BLM, San Diego County, CSLC, BIA, and/or the Ewiiaapaayp Band of Kumeyaay Indians, depending on the jurisdiction where the construction activities are being completed, will ensure that all off-road equipment meets Tier 2 (or Tier 3) standards.
Responsible Agency	BLM/San Diego County/CSLC/BIA/Ewiiaapaayp Band of Kumeyaay Indians
Timing	Plan in effect throughout construction
ESJ Gen-Tie Project	
Mitigation Measure	**AQ-1.** The following measures shall be incorporated to reduce fugitive dust and other criteria pollutant emissions during construction activities: • Rock aprons or rattle plates will be installed as needed at the intersection of dirt access roads and paved public roadways to clean the tires of equipment prior to leaving the site. • All active construction areas, unpaved access roads, parking areas, and staging areas will be watered or stabilized with nontoxic soil stabilizers as needed to control fugitive dust. • All public streets will be swept or cleaned with mechanical sweepers if visible soil material is carried onto them by construction activities or vehicles. • Exposed stockpiles (e.g., dirt, sand, etc.) will be covered and/or watered or stabilized with nontoxic soil binders as needed to control emissions. • Trucks transporting bulk materials will be completely covered unless 2 feet of freeboard space from the top of the container is maintained with no spillage and loss of material. In addition, the cargo compartment of all haul trucks will be cleaned and/or washed at the delivery site after removal of the bulk material. • Movement of bulk material handling or transfer will be stabilized prior to handling or at a point of transfer with application of sufficient water, chemical stabilizers, or by sheltering or enclosing the operation and transfer line. • Traffic speeds on unpaved roads and the ROW will be limited to 15 miles per hour. • Vehicle idling time will be limited to a maximum of 5 minutes for vehicles and construction equipment, except where idling is required for the equipment to perform its task. • Road graders used during site development activities will be equipped with a CARB-verified Level 2 diesel emission control strategy or a comparable diesel-control technology that will reduce inhalable particulate matter (PM_{10}) emissions by 50% or more. • If suitable park-and-ride facilities are available in the project vicinity, construction workers will be encouraged to carpool to the job site to the extent feasible. The ability to develop an effective carpool program for the project would depend upon the proximity of

Table D.11-21 (Continued)

	carpool facilities to the job site, the geographical commute departure points of construction workers, and the extent to which carpooling would not adversely affect worker show-up time and the project's construction schedule. • All off-road, diesel-powered construction equipment will be kept in good tune and maintained according to the manufacturer's specifications. • Construction equipment will use electric-powered motors where feasible. • The construction contractor will prepare and implement a high-wind dust control plan and terminate soil disturbance when winds exceed 25 miles per hour. • The construction contractor will require 90-day, low-NO_x tune-ups for off-road equipment. • Diesel particulate filters will be utilized on heavy equipment where feasible. • Construction activities will comply with all applicable SDAPCD rules and regulations.
Location	ESJ Gen-Tie Project site
Monitoring/Reporting Action	San Diego County will ensure that these measures are carried out during project construction.
Responsible Agency	San Diego County
Timing	Plan in effect throughout construction

D.11.9 Residual Effects

Under NEPA, impacts for the Proposed PROJECT would be adverse for Impact AIR-1. Implementation of the mitigation measures presented in Section D.11.8 would not mitigate the impacts identified below in Table D.11-22. Therefore, under NEPA these impacts are unavoidable and adverse. Under CEQA, these impacts would be residually significant and cannot be mitigated to a level that is less than significant.

Table D.11-22
Significant and Unmitigable Impacts

Impact No.	Description	Status after Mitigation
ECO Substation – Class I Impacts		
ECO-AIR-1	Construction would generate dust and exhaust emissions of criteria pollutants and toxic air contaminants.	Implementation of Mitigation Measures AQ-1 and AQ-2 would reduce criteria pollutant emissions; however, the exact reduction cannot be determined because the assumed tiers of the equipment in the URBEMIS 2007 emissions model are not known. Therefore, air quality emissions (NO_x and PM_{10}) would remain significant and unavoidable.
Tule Wind – Class I Impacts		
TULE-AIR-1	Construction would generate dust and exhaust emissions of criteria pollutants and toxic air contaminants.	Implementation of Mitigation Measures AQ-1 and AQ-2 would reduce criteria pollutant emissions however, the exact reduction cannot be determined because the assumed tiers of the equipment in the URBEMIS 2007 emissions model are not known. Therefore, air quality emissions (VOC, NOx, PM-10,

Table D.11-22 (Continued)

Impact No.	Description	Status after Mitigation
		and $PM_{2.5}$) would remain significant and unavoidable.
ESJ Gen-Tie – Class I Impacts		
ESJ-AIR-1	Construction would generate dust and exhaust emissions of criteria pollutants and toxic air contaminants.	Implementation of Mitigation Measure AQ-1 would reduce NOx emissions would reduce criteria pollutant emissions however, the exact reduction cannot be determined because the assumed tiers of the equipment in the URBEMIS 2007 emissions model are not known. Therefore, air quality emissions (primarily NO_x and PM_{10}) would remain significant and unavoidable

ECO-AIR-1. The proposed mitigation measures for NO_x and PM_{10} would not reduce the impacts to less than significant under CEQA and the impact would remain unavoidable and adverse under NEPA. The effectiveness of the NO_x measures, through use of Tier 2 and 3 engines, restricting vehicle idling, proper equipment tune-ups, and worker carpooling cannot be calculated with certainty to demonstrate sufficient reduction in NO_x emissions. Similarly, the effectiveness of additional PM_{10} controls that were already accounted for in the emission estimates cannot be estimated. Furthermore, much of the PM_{10} emissions for the ECO Substation Project are associated with paved road dust generated by vehicles traveling on public roads. Despite modifications of project components, the construction of project alternatives would similarly exceed thresholds for criteria pollutants (primarily NO_x and PM_{10}) and therefore air quality impacts would remain significant and unavoidable under CEQA and unavoidable adverse under NEPA. Because the effectiveness of dust and exhaust emission reducing measures cannot be calculated, there is no feasible mitigation to reduce this anticipated impact to a level that is below a level of significance under CEQA. This would remain an unavoidable adverse impact under NEPA.

TULE-AIR-1. The proposed mitigation measures for dust and exhaust emissions would not reduce the impacts to less than significant under CEQA and the impact would remain unavoidable and adverse under NEPA. While implementation of Mitigation Measures AQ-1 and AQ-2 would reduce criteria pollutant emissions, because the effectiveness of measures cannot be calculated, the identified impact cannot be mitigated. Despite modifications to project design that could reduce the construction schedule associated with the proposed Tule Wind Project, project alternatives are anticipated to result in similar air quality impacts associated with VOC, NO_x, PM_{10}, and $PM_{2.5}$ emissions generated during construction activities and because the effectiveness of dust and exhaust emission reducing measures cannot be calculated, there is no feasible mitigation to reduce this anticipated impact to a level that is below a level of significance under CEQA. This would remain an unavoidable adverse impact under NEPA.

ESJ-AIR-1. The proposed mitigation measures for dust and exhaust emissions would not reduce the impacts to less than significant under CEQA and the impact would remain unavoidable and adverse under NEPA. While implementation of Mitigation Measure AQ-1 would reduce criteria pollutant emissions, because the effectiveness of measures cannot be calculated, the identified impact (PM_{10} emissions) cannot be mitigated. Also, despite modifications to project design, project alternatives are anticipated to result in similar air quality impacts associated with PM_{10} emissions generated during construction activities. Because the effectiveness of dust and exhaust emission reducing measures cannot be calculated, there is no feasible mitigation to reduce this anticipated impact to a level that is below a level of significance under CEQA. This would remain an unavoidable adverse impact under NEPA.

D.11.10 References

14 CCR 15000–15387 and Appendix A–L. Guidelines for Implementation of the California Environmental Quality Act, as amended.

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