

3.3 Air Quality

This section includes an overview of the existing air quality within the project area and identifies applicable local, state, and federal policies related to air quality. The impact assessment provides an evaluation of potential adverse effects on air quality based on criteria derived from the CEQA Guidelines and Imperial County Air Pollution Control District's (ICAPCD) Air Quality Handbook in conjunction with actions proposed in Chapter 2, Project Description. Stantec prepared an *Air Quality Technical Study* that assesses the potential air quality and climate change impacts of the Wister Solar Energy Facility Project. This report is included in Appendix D of this EIR.

3.3.1 Existing Conditions

Regional Setting

The project is located in Imperial County within the Salton Sea Air Basin (SSAB). The SSAB consists of all of Imperial County and a portion of Riverside County. Both the Imperial County Air Pollution Control District (ICAPCD) and South Coast Air Quality Management District (SCAQMD) have jurisdiction within the SSAB. The ICAPCD has full jurisdiction within all Imperial County and SCAQMD only has jurisdiction within Riverside County. As an arid desert region, the SSAB's climate is largely governed by the large-scale sinking and warming of air within the semi-permanent subtropical high-pressure center over the Pacific Ocean. When the fringes of mid-latitude storms pass through the Imperial Valley in winter, the coastal mountains create a strong "rain shadow" effect that makes Imperial Valley the second driest location in the U.S.

The lack of clouds and atmospheric moisture creates strong diurnal and seasonal temperature variations ranging from an average summer maximum of 108 degrees (°) Fahrenheit down to a winter morning minimum of 38° Fahrenheit. The most pleasant weather occurs from about mid-October to early May when daily highs are in the 70s and 80s with very infrequent cloudiness or rainfall. Imperial County experiences significant rainfall an average of only four times per year. The rainy period of the year lasts for 3.4 months, from December 4 to March 16, with a sliding 31-day rainfall of at least 0.5 inch. The rainless period of the year lasts for over 8 months, from March to early December.

Temperature inversions and light nighttime winds trap any local air pollution emissions near the ground. The area is subject to frequent hazy conditions at sunrise, followed by rapid daytime dissipation as winds pick up and the temperature warms. During periods of strong solar heating and intense convection, turbulent motion creates good mixing and low levels of air pollution. The SSAB experiences surface inversions almost every day of the year. These inversions often last for long periods of time, which allows for air stagnation and buildup of pollutants, including ozone.

Winds in the area are driven by a complex pattern of local, regional, and global forces, but primarily reflect the temperature difference between the cool ocean to the west and the heated interior of the entire desert southwest. For much of the year, winds flow predominantly from the west to the east. In summer, intense solar heating in the Imperial Valley creates a more localized wind pattern, as air comes up from the southeast via the Gulf of California.

Imperial County is predominately agricultural land, which is a factor in the cumulative air quality of the SSAB. Agricultural production generates dust and small particulate matter through the use of agricultural equipment on unpaved roads, land preparation, and harvest practices. Imperial County experiences unhealthful air quality from photochemical smog and from dust because of extensive surface disturbance and the very arid climate.

Major Air Pollutants

Criteria Pollutants

Air quality is defined by ambient air concentrations of specific pollutants determined by the U.S. Environmental Protection Agency (U.S. EPA) to be of concern with respect to the health and welfare of the general public. Seven major pollutants of concern, called criteria pollutants, are carbon monoxide (CO), sulfur dioxide (SO₂), nitrogen dioxide (NO₂), ozone (O₃), particulate matter (PM) which is broken down for regulatory purposes into PM₁₀, PM_{2.5}, and lead (Pb). The California Air Resources Board (CARB) also identifies sulfates, hydrogen sulfide, vinyl chloride, and visibility reducing particles as criteria pollutants. Table 3.3-1 describes the health effect of these criteria pollutants.

Table 3.3-1. Health Effects of Criteria Air Pollutants

Air Pollutant	Health Effects
CO	<ul style="list-style-type: none"> • Chest pain in patients with heart disease • Headache • Light-headedness • Reduced mental alertness
SO ₂	<ul style="list-style-type: none"> • Worsening of asthma: increased symptoms, increased medication usage, and emergency room visits
NO ₂	<ul style="list-style-type: none"> • Lung irritation • Enhanced allergic responses
O ₃	<ul style="list-style-type: none"> • Respiratory symptoms • Worsening of lung disease leading to premature death • Damage to lung tissue
PM ₁₀ and PM _{2.5}	<ul style="list-style-type: none"> • Premature death • Hospitalization for worsening of respiratory disease • Asthma-related emergency room visits
Pb	<ul style="list-style-type: none"> • Impaired mental functioning in children • Learning disabilities in children • Brain and kidney damage
Sulfates	<ul style="list-style-type: none"> • Worsening of asthma and other lung diseases
Hydrogen Sulfide	<ul style="list-style-type: none"> • At high concentrations: headache and breathing difficulties
Vinyl Chloride	<ul style="list-style-type: none"> • Central nervous effects, such as dizziness, drowsiness, and headaches • Long-term exposure: liver damage and liver cancer

Table 3.3-1. Health Effects of Criteria Air Pollutants

Air Pollutant	Health Effects
Visibility Reducing Particles	<ul style="list-style-type: none"> • Premature death • Hospitalization for worsening of respiratory disease • Asthma-related emergency room visits

Source: CARB 2020

Notes:

CO – carbon monoxide; NO₂ – nitrogen dioxide; O₃ – ozone; Pb – lead; PM_{2.5} – particulate matter less than 2.5 microns in diameter;

PM₁₀ – particulate matter less than 10 microns in diameter; SO₂ – sulfur dioxide

Toxic Air Contaminants

Toxic air contaminants (TAC) are substances that have the potential to be emitted into the ambient air that have been determined to present some level of acute or chronic health risk (cancer or non-cancer) to the general public. These pollutants may be emitted in trace amounts from various types of sources, including combustion sources. There are almost 200 compounds that have been designated as TACs in California. The 10 TACs posing the greatest known health risk in California, based primarily on ambient air quality data, are acetaldehyde, benzene, 1,3-butadiene, carbon tetrachloride, hexavalent chromium, formaldehyde, methylene chloride, para-dichlorobenzene, perchloroethylene, and diesel particulate matter.

Attainment Status

As shown in Table 3.3-2, Imperial County is currently designated as nonattainment for O₃ and PM₁₀ under state standards. Under federal standards, the County is in marginal nonattainment for O₃, serious nonattainment for PM₁₀, and moderate nonattainment for PM_{2.5}. The area is currently in attainment or unclassified status for all other ambient air quality standards.

Table 3.3-2. Attainment Status of Imperial County

Pollutant	Federal Designation	State Designation
O ₃ ¹	Marginal Nonattainment	Nonattainment
PM ₁₀	Serious Nonattainment	Nonattainment
PM _{2.5}	Moderate Nonattainment – partial ²	Attainment
CO	Unclassified/Attainment	Attainment
NO ₂	Unclassified/Attainment	Attainment
SO ₂	Attainment	Attainment
Pb	Unclassified/Attainment	Attainment
H ₂ S	—	Unclassified
Sulfates	—	Attainment

Table 3.3-2. Attainment Status of Imperial County

Pollutant	Federal Designation	State Designation
Visibility Reducing Particles	—	Unclassified

Source: Appendix D of this EIR

Notes: = Not Identified/No Status

¹ The SSAB is marginal nonattainment for the 2015 ozone standard and moderate attainment for the 2008 standard.

² Only the Imperial Valley portion of the County is nonattainment for PM_{2.5} NAAQS

CO – carbon monoxide; NO₂ – nitrogen dioxide; O₃ – ozone; Pb – lead; PM_{2.5} – particulate matter less than 2.5 microns in diameter; PM₁₀ - particulate matter less than 10 microns in diameter; SO₂ – sulfur dioxide

Local Ambient Air Quality

Air pollutants transported into the SSAB from the adjacent South Coast Air Basin (Los Angeles, San Bernardino County, Orange County, and Riverside County) and from Mexicali, Mexico substantially contribute to the non-attainment conditions in the SSAB.

The closest most representative air quality monitoring station to the project site is the Niland Monitoring Station located at 7711 English Road, Niland, CA 92257, approximately 4.5 miles southwest from the project site. However, the Niland Monitoring Station only monitors ozone and PM₁₀. Thus, monitoring data collected for PM_{2.5} is from the Brawley Monitoring Station located at 220 Main Street, Brawley, CA 92227, approximately 20 miles south of the project site.

Table 3.3-3 shows pollutant levels, the state and federal standards, and the number of exceedances recorded at these stations from 2013 to 2017. As shown in Table 3.3-3, the state 1-hour O₃ standard was exceeded in 2013, and the 8-hour O₃ standard was exceeded from 2013-2015. The national 24-hour PM₁₀ standard was exceeded from 2014-2017, and the state 24-hour PM_{2.5} standard was exceeded from 2016-2017.

Table 3.3-3. Criteria Air Pollutants – Ambient Data Summary

Pollutant	Averaging Time	Standard	Maximum Concentration				
			2013	2014	2015	2016	2017
O ₃	1-Hour	Maximum Concentration (ppm)	0.102	0.081	0.091	0.079	0.072
		Days > CAAQS (0.09 ppm)	1	0	0	0	0
	8-Hour	Maximum Concentration (ppm) ^a	0.083	0.075	0.074	0.066	0.061
		Days > NAAQS (0.07 ppm)	5	2	5	0	0

Table 3.3-3. Criteria Air Pollutants – Ambient Data Summary

Pollutant	Averaging Time	Standard	Maximum Concentration				
			2013	2014	2015	2016	2017
PM ₁₀	24-Hour	Maximum concentration (µg/m ³) – National	144	173	250	226	345
		Maximum concentration (µg/m ³) – State	333	276	260	231	*
		Days > NAAQS (150 µg/m ³)	0	6	6	6	4
		Days > CAAQS (50 µg/m ³)	145	124	104	87	*
	Annual	State Annual Average (20 µg/m ³)	51.5	50.6	46.11	40.7	n/a
PM _{2.5} ^c	24-Hour	Maximum concentration (µg/m ³)	23.1	24.3	29.5	57.9	46.1
		Days > NAAQS (35 µg/m ³)	0	0	0	6	3
		National Std. 98 th Percentile ^b	17	20	12	32	27
	Annual	National Annual (12.0 µg/m ³)	7.2	7.3	6.6	11.3	9.4

Source: Appendix D of this EIR

Notes:

Ambient data for CO, NO₂, SO₂ and airborne lead are not included in this table since the entire Imperial County is currently in compliance with state and federal standards for these pollutants.

The estimated number of measured concentrations above national standards are shown in **bold**.

^a The 8-hour ozone standard is attained when the fourth highest concentration in a year, averaged over 3 years, is less than or equal to the new national standard of 0.07 ppm. (Values listed in table represent midnight-to-midnight 24-hour averaged and exclude exceptional events.)

^b Attainment condition for PM_{2.5} is that the 3-year average of the 98th percentile of 24-hour concentrations at each monitor within an area must not exceed the standard.

^c O₃ and PM₁₀ data are from the Niland Monitoring Station. PM_{2.5} concentrations are not measured at Niland station; the listed data are from the Brawley Monitoring Station.

AAM – Annual Arithmetic Mean; CAAQS – California Ambient Air Quality Standards; µg/m³ – micrograms per cubic meter; NAAQS – National Ambient Air Quality Standards; ppm – parts per million; n/a – sufficient data not available to determine the value; O₃ – ozone; PM₁₀ – particulate matter less than 10 microns in diameter; PM_{2.5} – particulate matter less than 2.5 microns in diameter

Sensitive Receptors

High concentrations of air pollutants pose health hazards for the general population, but particularly for the young, the elderly, and the sick. Typical health problems attributed to smog include respiratory ailments, eye and throat irritations, headaches, coughing, and chest discomfort. Certain land uses are considered to be more sensitive to the effects of air pollution. Schools, hospitals, residences, and other facilities where people congregate, especially children, the elderly and infirm, are considered particularly sensitive to air pollutants.

The project site is in a generally rural area and surrounded by relatively undisturbed desert lands. Agricultural fields are located to the west of the site. Sensitive receptors located within one mile of the project site consist of a few scattered rural homes west of the site. There are no sensitive receptors within 1,500 feet of the project site boundary.

3.3.2 Regulatory Setting

This section identifies and summarizes federal, state, and local laws, policies, and regulations that are applicable to the project.

Federal

Clean Air Act

The Federal Clean Air Act (CAA), passed in 1970 and last amended in 1990, is the primary federal law that governs air quality. The Federal CAA delegates primary responsibility for clean air to the U.S. EPA. The U.S. EPA develops rules and regulations to preserve and improve air quality and delegates specific responsibilities to state and local agencies. Under the act, the U.S. EPA has established the National Ambient Air Quality Standards (NAAQS) for six criteria air pollutants that are pervasive in urban environments and for which state and national health-based ambient air quality standards have been established. O₃, CO, NO₂, SO₂, Pb, PM₁₀, and PM_{2.5} are the six criteria air pollutants. Ozone is a secondary pollutant, Nitrogen oxides (NO_x) and volatile organic compounds (VOCs) are of particular interest as they are precursors to ozone formation. In addition, national standards exist for Pb. The NAAQS standards are set at levels that protect public health with a margin of safety, and are subject to periodic review and revision.

The Federal CAA requires EPA to designate areas as attainment, nonattainment, or maintenance (previously nonattainment and currently attainment) for each criteria pollutant based on whether the NAAQS have been achieved. The federal standards are summarized in Table 3.3-4.

State

California Clean Air Act

The California Clean Air Act (CCAA) was adopted by the California Air Resources Board (CARB) in 1988. The CCAA is responsible for meeting the state requirements of the Federal CAA and for establishing the California Ambient Air Quality Standards (CAAQS). CARB oversees the functions of local air pollution control districts and air quality management districts, which, in turn, administer air quality activities at the regional and county levels. The CCAA, as amended in 1992, requires all air districts of the state to achieve and maintain the CAAQS by the earliest practical date.

The CCAA requires CARB to designate areas within California as either attainment or nonattainment for each criteria pollutant based on whether the CAAQS have been achieved. Under the CCAA, areas are designated as nonattainment for a pollutant if air quality data shows that a state standard for the pollutant was violated at least once during the previous 3 calendar years. As shown in Table 3.3-4, the CAAQS are generally more stringent than the corresponding federal standards and incorporate additional standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. Exceedances that are affected by highly irregular or infrequent events are not considered violations of a state standard and are not used as a basis for designating areas as nonattainment.

California State Implementation Plan

The CAA mandates that the state submit and implement a State Implementation Plan (SIP) for areas not meeting the NAAQS. These plans must include pollution control measures that demonstrate how the standards will be met. State law makes CARB the lead agency for all purposes related to the SIP. Local air districts and other agencies prepare SIP elements and submit them to CARB for review and approval. CARB then forwards SIP revisions to the U.S. EPA for approval and publication in the Federal Register. The Code of Federal Regulations Title 40, Chapter I, Part 52, Subpart F, Section 52.220 lists all of the items which are included in the California SIP.

Table 3.3-4. Ambient Air Quality Standards

Air Pollutant	Averaging Time	California Standard	National Standard
O ₃	1-hour	0.09 ppm	--
	8-hour	0.070 ppm	0.070 ppm
PM ₁₀	24-hour Mean	50 µg/m ³	150 µg/m ³
		20 µg/m ³	--
PM _{2.5}	24-hour Mean	--	35 µg/m ³
		12 µg/m ³	12.0 µg/m ³
CO	1-hour 8-hour	20 ppm	35 ppm
		9.0 ppm	9 ppm
NO ₂	1-hour Mean	0.18 ppm	100 ppb
		0.030 ppm	0.053 ppm
SO ₂	1-hour 24-hour	0.25 ppm	75 ppb
		0.04 ppm	--
Pb	30-day Rolling 3-month	1.5 µg/m ³	--
			0.15 µg/m ³
Sulfates	24-hour	25 µg/m ³	No federal standard
Hydrogen sulfide	1-hour	0.03 ppm	
Vinyl chloride	24-hour	0.01 ppm	
Visibility-reducing particles	8-hour	Extinction coefficient of 0.23 per kilometer, visibility of 10 miles or more because of particles when relative humidity is less than 70 percent	

Source: Appendix D of this EIR

CO – carbon monoxide; mean – annual arithmetic mean; NO₂ – nitrogen dioxide; O₃ – ozone; Pb – lead; PM_{2.5} – particulate matter less than 2.5 microns in diameter; PM₁₀ – particulate matter less than 10 microns in diameter; ppb – parts per billion; ppm – parts per million; SO₂ – sulfur dioxide; µg/m³ – micrograms per cubic meter

Toxic Air Contaminants Regulation

TAC sources include industrial processes, dry cleaners, gasoline stations, paint and solvent operations, and fossil fuel combustion sources. The TACs that are relevant to the implementation include diesel particulate matter (DPM) and airborne asbestos.

In August 1998, ARB identified diesel particulate matter (DPM) emissions from diesel-fueled engines as a TAC. In September 2000, ARB approved a comprehensive diesel risk reduction plan to reduce emissions from both new and existing diesel fueled engines and vehicles. The goal of the plan is to reduce diesel PM₁₀ (inhalable particulate matter) emissions and the associated health risk by 75 percent in 2010 and by 85 percent by 2020. The plan identified 14 measures that target new and existing on-road vehicles (e.g., heavy duty trucks and buses, etc.), off-road equipment (e.g., graders, tractors, forklifts, sweepers, and boats), portable equipment (e.g., pumps, etc.), and stationary engines (e.g., stand-by power generators, etc.).

Regional

Imperial County Air Pollution Control District

The Imperial County Air Pollution Control District (ICAPCD) is the agency responsible for monitoring air quality, as well as planning, implementing, and enforcing programs designed to attain and maintain state and federal ambient air quality standards in the district. ICAPCD is responsible for regulating stationary sources of air emissions in Imperial County. Stationary sources that have the potential to emit air pollutants into the ambient air are subject to the Rules and Regulations adopted by ICAPCD. ICAPCD is responsible for establishing stationary source permitting requirements and for ensuring that new, modified, or relocated stationary sources do not create net emission increases. Monitoring of ambient air quality in Imperial County began in 1976. Since that time, monitoring has been performed by ICAPCD, CARB, and by private industry. There are six monitoring sites in Imperial County from Niland to Calexico. The ICAPCD has developed the following plans to achieve attainment for air quality ambient standards.

- **2017 Imperial County Plan for 2008 8-hour Ozone Standard.** Because of Imperial County's "moderate" nonattainment status for 2008 federal 8-hour O₃ standards, ICAPCD was required to develop an 8-hour Attainment Plan for Ozone (ICAPCD 2017b).
- **2009 Imperial County Plan for PM₁₀.** Imperial Valley is classified as nonattainment for federal and state PM₁₀ standards. As a result, ICAPCD was required to develop a PM₁₀ Attainment Plan. The final plan was adopted by ICAPCD on August 11, 2009 (ICAPCD 2009).
- **2013 Imperial County Plan for 2006 24-hour PM_{2.5} for Moderate Nonattainment Area.** U.S. EPA designated Imperial County as nonattainment for the 2006 24-hr PM_{2.5} standard, effective December 14, 2009. The 2013 PM_{2.5} SIP demonstrates attainment of the 2006 PM_{2.5} NAAQS "but-for" transport of international emissions from Mexicali, Mexico. The City of Calexico, California shares a border with the City of Mexicali. Effective July 1, 2014, the City of Calexico was designated nonattainment, while the rest of the SSAB was designated attainment (ICAPCD 2014).

Imperial County Air Pollution Control District Rules and Regulations

ICAPCD has the authority to adopt and enforce regulations dealing with controls for specific types of sources, emissions or hazardous air pollutants, and New Source Review. The ICAPCD Rules and Regulations are part of the SIP and are separately enforceable by the EPA.

Rule 106 – Abatement. The Board may, after notice and a hearing, issue, or provide for the issuance by the Hearing Board, of an order for abatement whenever the District finds that any person is in violation of the rules and regulations limiting the discharge of air contaminants into the atmosphere.

Rule 107 – Land Use. The purpose of this rule is to provide ICAPCD the duty to review and advise the appropriate planning authorities within the District on all new construction or changes in land use which the Air Pollution Control Officer believes could become a source of air pollution problems.

Rule 201 – Permits Required. The construction, installation, modification, replacement, and operation of any equipment which may emit or control Air Contaminants require ICAPCD permits.

Rule 207 – New and Modified Stationary Source Review. Establishes preconstruction review requirements for new and modified stationary sources to ensure the operations of equipment does not interfere with attainment or maintenance of ambient air quality standards.

Rule 208 – Permit to Operate. The ICAPCD would inspect and evaluate the facility to ensure the facility has been constructed or installed and will operate to comply with the provisions of the Authority to Construct permit and comply with all applicable laws, rules, standards, and guidelines.

Rule 310 – Operational Development Fee. THE purpose of this rule is to provide ICAPCD with a sound method for mitigating the emissions produced from the operation of new commercial and residential development projects throughout the County of Imperial and incorporated cities. All project proponents have the option to either provide: off-site mitigation, pay the operational development fee, or do a combination of both. This rule will assist ICAPCD in attaining the state and federal ambient air quality standards for PM₁₀ and O₃.

Rule 401 – Opacity of Emissions. Sets limits for release or discharge of emissions into the atmosphere, other than uncombined water vapor, that are dark or darker in shade as designated as No.1 on the Ringelmann Chart or obscure an observer’s view to a degree equal to or greater than smoke does as compared to No.1 on the Ringelmann Chart, for a period or aggregated period of more than three minutes in any hour.

Rule 403 – General Limitations on the Discharge of Air Contaminants. Rule 403 sets forth limitations on emissions of pollutants, including particulate matter, from individual sources.

Rule 407 – Nuisance. Rule 407 prohibits a person from discharging from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.

Regulation VIII – Fugitive Dust Rules. Regulation VIII sets forth rules regarding the control of fugitive dust, including fugitive dust from construction activities. The regulation requires implementation of fugitive dust control measures to reduce emissions from earthmoving, unpaved roads, handling of bulk materials, and control of track-out/carry-out dust from active construction sites. Best Available Control Measures to reduce fugitive dust during construction and earthmoving activities include but are not limited to:

- Phasing of work in order to minimize disturbed surface area
- Application of water or chemical stabilizers to disturbed soils
- Construction and maintenance of wind barriers

- Use of a track-out control device or wash down system at access points to paved roads.

Compliance with Regulation VIII is mandatory on all construction sites, regardless of size; however, compliance with Regulation VIII does not constitute mitigation under the reductions attributed to environmental impacts. In addition, compliance for a project includes: (1) the development of a dust control plan for the construction and operational phase; and (2) notification to the Air District is required 10 days prior to the commencement of any construction activity. Furthermore, any use of engine(s) and/or generator(s) of 50 horsepower or greater may require a permit through ICAPCD.

Southern California Association of Governments - 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy

The Southern California Association of Governments (SCAG) is the designated metropolitan planning organization for Los Angeles, Ventura, Orange, San Bernardino, Riverside, and Imperial Counties. CEQA requires that regional agencies like SCAG review projects and plans throughout its jurisdiction. SCAG, as the region's "Clearinghouse," collects information on projects of varying size and scope to provide a central point to monitor regional activity. SCAG has the responsibility of reviewing dozens of projects, plans, and programs every month. Projects and plans that are regionally significant must demonstrate to SCAG their consistency with a range of adopted regional plans and policies.

On April 7, 2016, SCAG adopted the 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). The RTP/SCS includes a strong commitment to reduce emissions from transportation sources to comply with Senate Bill 375, improve public health, and meet the NAAQS as set forth by the federal CAA. The following SCAG goal is applicable to the project:

- Protect the environment and health of our residents by improving air quality and encouraging active transportation.

As a solar generation facility, the proposed project would improve air quality by reducing the use of fossil fuels in energy production. Construction of the proposed project would not exceed any ICAPCD thresholds or result in significant impacts to air quality. Although no significant air quality impact would occur during construction, all construction projects within Imperial County must comply with the requirements of ICAPCD Regulation VIII for the control of fugitive dust. PM₁₀ emissions associated with construction of the project would be reduced through compliance with ICAPCD Regulation VIII. Operation of the proposed project would not exceed any ICAPCD thresholds or result in significant impacts to air quality. Therefore, the proposed project would be consistent with this SCAG goal.

Imperial County General Plan

The Imperial County General Plan serves as the overall guiding policy for the County. The Conservation and Open Space Element includes objectives for helping the County achieve the goal of improving and maintaining the quality of air in the region. Table 3.3-5 summarizes the project's consistency with the applicable air quality goal and objectives from the Conservation and Open Space Element. While this EIR analyzes the project's consistency with the General Plan pursuant to State CEQA Guidelines Section 15125(d), the Imperial County Board of Supervisors ultimately determines consistency with the General Plan.

Table 3.3-5. Project Consistency with Applicable Plan Policies

Applicable Policies	Consistency Determination	Analysis
<i>Conservation and Open Space Element</i>		
Protection of Air Quality and Addressing Climate Change Goal 7: The County shall actively seek to improve the quality of air in the region.	Consistent	The proposed project would be required to comply with all applicable ICAPCD rules and requirements during construction and operation to reduce air emissions. Overall, the proposed project would improve air quality and reduce GHG emissions by reducing the amount of emissions that would be generated in association with electricity production from a fossil fuel burning facility. Therefore, the proposed Project is consistent with this goal.
Objective 7.1: Ensure that all project and facilities comply with current Federal, State and local requirements for attainment of air quality objectives.	Consistent	The proposed project would comply with current federal and State requirements for attainment for air quality objectives through conformance with all applicable ICAPCD rules and requirements to reduce fugitive dust and emissions. Further, the project would comply with the ICAPCD Air Quality CEQA Handbook's Mandatory Standard, Discretionary and Enhanced Air Quality Measures (Mitigation Measure AQ-2). Therefore, the proposed project is consistent with this objective.
Objective 7.2: Develop management strategies to mitigate fugitive dust. Cooperate with all federal and state agencies in the effort to attain air quality objectives.	Consistent	The Applicant would cooperate with all federal and State agencies in the effort to attain air quality objectives through compliance with the ICAPCD Air Quality CEQA Handbook's Mandatory Standard, Discretionary and Enhanced Air Quality Measures (Mitigation Measure AQ-2). Therefore, the proposed project is consistent with this objective.

Source: Imperial County General Plan, as amended

3.3.3 Impacts and Mitigation Measures

This section presents the significance criteria used for considering project impacts related to air quality, the methodology employed for the evaluation, an impact evaluation, and mitigation requirements, if necessary.

Thresholds of Significance

Based on CEQA Guidelines Appendix G, project impacts related to air quality are considered significant if any of the following occur:

- Conflict with or obstruct implementation of the applicable air quality plan
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for O3 precursors)
- Expose sensitive receptors to substantial pollutant concentrations

- Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people

Imperial County Air Pollution Control District

ICAPCD amended the Air Quality Handbook: Guidelines for the Implementation of CEQA on December 12, 2017. ICAPCD established significance thresholds based on the state CEQA thresholds. The handbook was used to determine the proper level of analysis for the project.

OPERATIONS

Air quality analyses should compare all operational emissions of a project, including motor vehicle, area source, and stationary or point sources to the thresholds in Table 3.3-6. Projects can be classified as either Tier 1 or Tier 2 projects, depending on the project’s operational emissions. As shown in Table 3.3-6, Tier 1 projects are projects that emit less than 137 pounds per day of nitrogen oxide (NO_x) or reactive organic gases (ROGs); less than 150 pounds per day of PM₁₀ or SO_x; or less than 550 pounds per day of CO or PM_{2.5}. Tier 1 projects are not required to develop a Comprehensive Air Quality Analysis Report or an EIR, and require the implementation of all feasible mitigation measures listed in Section 7.2 of the ICAPCD’s *Air Quality Handbook*.

Alternatively, Tier 2 projects are projects that emit 137 pounds per day of NO_x or ROG or greater; 150 pounds per day of PM₁₀ or SO_x or greater; or 550 pounds per day of CO or PM_{2.5} or greater. Tier 2 projects are required to develop a Comprehensive Air Quality Analysis Report at a minimum, and are required to implement all standard mitigation measures as well as all feasible discretionary mitigation measures listed in Sections 7.2 and 7.3 of the ICAPCD’s *Air Quality Handbook*.

Table 3.3-6. Imperial County Air Pollution Control District Significance Thresholds for Operation

Criteria Pollutant	Tier 1	Tier 2
NO _x and ROG	Less than 137 pounds per day	137 pounds per day and greater
PM ₁₀ and SO _x	Less than 150 pounds per day	150 pounds per day and greater
CO and PM _{2.5}	Less than 550 pounds per day	550 pounds per day and greater
Level of Significance	Less than Significant	Significant Impact

Source: ICAPCD 2017

CO – carbon monoxide; NO_x – nitrogen oxide; O₃ – ozone; Pb – lead; PM_{2.5} – particulate matter less than 2.5 microns in diameter; PM₁₀ – particulate matter less than 10 microns in diameter; ROG – reactive organic gas; SO_x – sulfur oxide

CONSTRUCTION

For construction projects, the Air Quality Handbook indicates that the significance threshold for NO_x is 100 pounds per day and for ROG is 75 pounds per day. As discussed in the ICAPCD’s handbook, the approach to evaluating construction emissions should be qualitative rather than quantitative. In any case, regardless of the size of the project, the standard mitigation measures for construction equipment and fugitive PM₁₀ must be implemented at all construction sites. The implementation of discretionary mitigation measures, as listed in Section 7.1 of the ICAPCD’s Air Quality Handbook, apply to those construction sites that are 5 acres or more for non-residential developments or 10 acres or more in size for residential developments. The mitigation measures found in Section 7.1

of the ICAPCD’s handbook are intended as a guide of feasible mitigation measures and are not intended to be an all-inclusive comprehensive list of all mitigation measures. Table 3.3-7 presents the construction emission thresholds that are identified by ICAPCD.

Table 3.3-7. Imperial County Air Pollution Control District Significance Thresholds for Construction Activities

Pollutant	Threshold
PM ₁₀	150 pounds per day
ROG	75 pounds per day
NO _x	100 pounds per day
CO	550 pounds per day

Source: ICAPCD 2017

CO – carbon monoxide; NO_x – nitrogen oxide; PM₁₀ - particulate matter less than 10 microns in diameter; ROG - reactive organic gas

Diesel Toxic Risk Thresholds

There are inherent uncertainties in risk assessment with regard to the identification of compounds as causing cancer or other health effects in humans, the cancer potencies and reference exposure levels of compounds, and the exposure that individuals receive. It is common practice to use conservative (health protective) assumptions with respect to uncertain parameters. The uncertainties and conservative assumptions must be considered when evaluating the results of risk assessments.

There is debate as to the appropriate levels of risk assigned to diesel particulates. The EPA has not yet declared diesel particulates as a toxic air contaminant. Using the CARB threshold, a risk concentration of one in one million (1:1,000,000) per micrograms per cubic meter (µg/m³) of continuous 70-year exposure is considered less than significant.

Methodology

The analysis criteria for air quality impacts are based on the approach and methods discussed in the ICAPCD’s Air Quality Handbook. The proposed project would result in both short-term and long-term emissions of air pollutants associated with construction and operations of the proposed project.

Construction emissions would include exhaust from the operation of conventional construction equipment, on-road emissions from employee vehicle trips and haul truck trips, fugitive dust as a result of grading and vehicle travel on paved and unpaved surfaces.

Operational emissions would include four vehicle trips per day of full-time employees to commute to and from the project site, to control the site operation and equipment and perform limited maintenance of equipment.

The handbook establishes aggregate emission calculations for determining the potential significance of a project. In the event that the emissions exceed the established thresholds (Table 3.3-6 and Table 3.3-7), air dispersion modeling may be conducted to assess whether the project results in an exceedance of an air quality standard. Emissions of criteria air pollutants were estimated using existing

conditions information, project construction details, and project operations information, as well as a combination of emission factors from the following sources.

- California Emissions Estimator Model (CalEEMod), version 2016.3.2
- Emission estimates and default data from sources such as USEPA AP-42 emission factors, CARB vehicle emission models, and studies from California agencies such as the California Energy Commission (CEC)
- Default data (e.g., emission factors, trip lengths, meteorology, source inventory, etc.) provided by the various California air districts to account for local requirements and conditions.

An air quality technical report was prepared by Stantec (Appendix D of this EIR). This report was used in the evaluation of construction and operational air quality impacts. Associated emissions calculations and assumptions are included in Appendix D of this EIR.

The air quality impacts are mainly attributable to construction phases of the project, including site preparation, facility installation, and gen-tie and site restoration. Operational impacts include inspection and maintenance operations, which includes washing of the solar panels.

Impact Analysis – Solar Energy Facility and Gen-Tie Line

Impact 3.3-1 Would the project conflict with or obstruct implementation of the applicable air quality plan?

The air quality attainment plan (AQAP) for the SSAB, through the implementation of the AQMP (previously AQAP) and SIP for PM₁₀, sets forth a comprehensive program that will lead the SSAB into compliance with all federal and state air quality standards. The AQMP control measures and related emission reduction estimates are based upon emissions projections for a future development scenario derived from land use, population, and employment characteristics defined in consultation with local governments. Conformance with the AQMP for development projects is determined by demonstrating compliance with local land use plans and/or population projections, meeting the land use designation set forth in the local General Plan, and comparing assumed emissions in the AQMP to proposed emissions.

The project must demonstrate compliance with all ICAPCD applicable rules and regulations, as well as local land use plans and population projections. As the project does not contain a residential component, the project would not result in an increase in the regional population. While the project would contribute to energy supply, which is one factor of population growth, the proposed project would not significantly increase employment or growth within the region. Moreover, development of the proposed project would increase the amount of renewable energy and help California meet its Renewable Portfolio Standard (RPS). As shown in Table 3.3-5, the project is consistent with the applicable air quality goal and objectives from the Conservation and Open Space Element of the General Plan. The proposed project would be required to comply with all applicable ICAPCD rules and requirements during construction and operation to reduce air emissions. Overall, the proposed project would improve air quality by reducing the amount of emissions that would be generated in association with electricity production from a fossil fuel burning facility.

Furthermore, the thresholds of significance, adopted by the air district (ICAPCD), determine compliance with the goals of the attainment plans in the region. As such, emissions below the ICAPCD regional mass daily emissions thresholds presented in Table 3.3-6 and Table 3.3-7 would not conflict

with or obstruct implementation of the applicable air quality plans. The following analysis is broken out by a discussion of potential impacts during construction of the project followed by a discussion of potential impacts during operation of the project.

Construction Emissions. Air emissions are generated during construction through activities. Emissions modeled include emissions associated with site preparation, grading, trenching, construction of roads, transmission lines, and installation of electrical infrastructure, substations and solar array modules. Diesel exhaust emissions are generated through the use of heavy equipment, such as dozers, loaders, scrapers, and vehicles, such as dump/haul trucks. During site clearing and grading, PM₁₀ is released as a result of soil disturbance. Construction emissions vary from day-to-day depending on the number of workers, number, and types of active heavy-duty vehicles and equipment, level of activity, the prevailing meteorological conditions, and the length over which these activities occur.

The proposed project is anticipated to take approximately 6-9 months from the commencement of the construction process to complete. Construction of the proposed project would occur in multiple phases: (1) Site Preparation; (2) Facility Installation; and (3) Gen-Tie and Site Restoration. The construction emissions associated with each of these phases was based on the construction schedule. The construction emissions for each phase were calculated using the equipment list, the construction schedule, and EPA emission rates. Refer to Chapter 2, Project Description, for a discussion of construction equipment and construction workforce.

The total exhaust emissions generated within each of the construction phases are shown in Table 3.3-8. As shown in Table 3.3-8, the project's daily construction emissions would not exceed the ICAPCD thresholds for CO, ROG, NO_x, and PM₁₀. Although no significant air quality impact would occur during construction, all construction projects within Imperial County must comply with the requirements of ICAPCD Regulation VIII for the control of fugitive dust. In addition, the ICAPCD's Air Quality Handbook lists additional feasible mitigation measures that may be warranted to control emissions of fugitive dust and combustion exhaust. Implementation of Mitigation Measures AQ-1 and AQ-2 would provide additional reduction strategies to further improve air quality and ensure that this potential impact would remain less than significant.

Operational Emissions. The proposed project requires minimal operations and maintenance activities and would not require presence of fulltime employees. However, for estimation of operational emissions, it is conservatively assumed that for day-to-day inspection and minor maintenance, some employees would commute to the site. The annual operations are assumed to be as follows:

- For site inspection and minor repairs, up to 4 one-way worker trips per day would be generated
- Routine maintenance activities would include panel washing, which is expected to occur four times annually over a total of 20 days. Panel washing activities are estimated to require additional daily trips of 4 workers and 6 haul trucks for transport of water during each event. Panel washing was assumed to require the use of two pressure washers operating 8 hours/day, and 5 days/week. The default model generated trip lengths were used for workers commute and haul trucks.

As shown in Table 3.3-9, the project's operational emissions would not exceed the ICAPCD thresholds for CO, ROG, NO_x, PM₁₀ and PM_{2.5}. Although no significant air quality impact would occur during operation, the project applicant is required to submit a Dust Suppression Management Plan for both construction and operations to reduce fugitive dust emissions. Implementation of Mitigation Measures AQ-3, AQ-4, and AQ-5 would ensure that this potential impact would remain less than significant.

As described above, conformance with the AQMP for development projects is determined by demonstrating compliance with local land use plans and/or population projections and comparing assumed emissions in the AQMP to proposed emissions. Because the proposed project complies with local land use plans and population projections and would not exceed ICAPCD’s regional mass daily emissions thresholds during construction and operations, the proposed project would not conflict with or obstruct implementation of the applicable air quality plan. This is considered a less than significant impact.

Table 3.3-8. Estimated Construction Emissions by Phase

Construction Phase Activity	Pollutant Emission (pounds per day)					
	ROG	NOx	CO	PM ₁₀	PM _{2.5}	SO ₂
Site Preparation	4.1	39.6	25.7	27.8	7.9	0.06
Facility Installation	3.4	30.4	25.0	27.6	4.0	0.06
Gen-Tie, Site Restoration	2.0	17.9	14.8	14.2	2.2	0.03
Peak Daily Emission	4.1	39.6	25.7	27.8	7.9	0.06
ICAPCD Significance Thresholds	75	100	550	150	--	--
Exceed Threshold?	No	No	No	No	--	--

Source: Appendix D of this EIR

Notes:

-ICAPCD significance thresholds are based on maximum daily emissions.

-Emission were quantified using CalEEMod, version 2016.3.2 using “general light industry” land use category and modifying default values, where applicable.

-Model results and assumptions are provided in Appendix D of this EIR.

ICAPCD – Imperial County Air Pollution Control District; N/A – not applicable CO – carbon monoxide; NOx – nitrogen oxide; O₃ – ozone; Pb – lead; PM_{2.5} – particulate matter less than 2.5 microns in diameter; PM₁₀ - particulate matter less than 10 microns in diameter; ROG - reactive organic gas; SO_x – sulfur dioxide

Table 3.3-9. Estimated Operational Emissions Summary

Operational Activities	Pollutant Emission (pounds per day)				
	ROG	NOx	CO	PM ₁₀	PM _{2.5}
Panel Washing	0.14	1.68	0.86	2.14	0.26
Normal Maintenance	0.02	0.02	0.24	0.63	0.07
Peak Daily Emission (Total Operational)	0.16	1.70	1.09	2.77	0.33
ICAPCD Significance Thresholds	137	137	550	150	550
Exceed Threshold?	No	No	No	No	No

Source: Appendix D of this EIR

Notes:

-ICAPCD significance thresholds are based on maximum daily emissions.

-Emission were quantified using CalEEMod, version 2016.3.2 using “user defined industrial” category and modifying default values using project-specific data/assumptions, where available.

-The data for PM₁₀ and PM_{2.5} emissions, include the standard mitigation for fugitive dust that is required for all projects in Imperial County.

-Model results and assumptions are provided in Appendix D of this EIR.

ICAPCD – Imperial County Air Pollution Control District; N/A – not applicable CO – carbon monoxide; NOx – nitrogen oxide; O₃ – ozone; Pb – lead; PM_{2.5} – particulate matter less than 2.5 microns in diameter; PM₁₀ – particulate matter less than 10 microns in diameter; ROG – reactive organic gas

Mitigation Measure(s)

- AQ-1 Construction Equipment.** Construction equipment shall be equipped with an engine designation of EPA Tier 2 or better (Tier 2+). A list of the construction equipment, including all off-road equipment utilized at each of the projects by make, model, year, horsepower and expected/actual hours of use, and the associated EPA Tier shall be submitted to the County Planning and Development Services Department and ICAPCD prior to the issuance of a grading permit. The equipment list shall be submitted periodically to ICAPCD to perform a NOx analysis. ICAPCD shall utilize this list to calculate air emissions to verify that equipment use does not exceed significance thresholds. The Planning and Development Services Department and ICAPCD shall verify implementation of this measure.
- AQ-2 Fugitive Dust Control.** Pursuant to ICAPCD, all construction sites, regardless of size, must comply with the requirements contained within Regulation VIII – Fugitive Dust Control Measures. Whereas these Regulation VIII measures are mandatory and are not considered project environmental mitigation measures, the ICAPCD CEQA Handbook’s required additional standard and enhanced mitigation measures listed below shall be implemented prior to and during construction. ICAPCD will verify implementation and compliance with these measures as part of the grading permit review/approval process.

ICAPCD Standard Measures for Fugitive Dust (PM₁₀) Control

- All disturbed areas, including bulk material storage, which is not being actively utilized, shall be effectively stabilized and visible emissions shall be limited to no greater than 20 percent opacity for dust emissions by using water, chemical stabilizers, dust suppressants, tarps, or other suitable material, such as vegetative ground cover.
- All on-site and offsite unpaved roads will be effectively stabilized and visible emissions shall be limited to no greater than 20 percent opacity for dust emissions by paving, chemical stabilizers, dust suppressants, and/or watering.
- All unpaved traffic areas 1 acre or more with 75 or more average vehicle trips per day will be effectively stabilized and visible emissions shall be limited to no greater than 20 percent opacity for dust emissions by paving, chemical stabilizers, dust suppressants, and/or watering.
- The transport of bulk materials shall be completely covered unless 6 inches of freeboard space from the top of the container is maintained with no spillage and loss of bulk material. In addition, the cargo compartment of all haul trucks is to be cleaned and/or washed at delivery site after removal of bulk material.
- All track-out or carry-out will be cleaned at the end of each workday or immediately when mud or dirt extends a cumulative distance of 50 linear feet or more onto a paved road within an urban area.
- Movement of bulk material handling or transfer shall be stabilized prior to handling or at points of transfer with application of sufficient water, chemical stabilizers, or by sheltering or enclosing the operation and transfer line.
- The construction of any new unpaved road is prohibited within any area with a population of 500 or more unless the road meets the definition of a temporary unpaved road. Any temporary unpaved road shall be effectively stabilized and visible emissions shall be limited to no greater than 20 percent opacity for dust emission by paving, chemical stabilizers, dust suppressants, and/or watering.

ICAPCD “Discretionary” Measures for Fugitive Dust (PM₁₀) Control

- Water exposed soil only in those areas where active grading and vehicle movement occurs with adequate frequency to control dust.
- Replace ground cover in disturbed areas as quickly as possible.
- Automatic sprinkler system installed on all soil piles.
- Vehicle speed for all construction vehicles shall not exceed 15 miles per hour on any unpaved surface at the construction site.
- Develop a trip reduction plan to achieve a 1.5 average vehicle ridership for construction employees.
- Implement a shuttle service to and from retail services and food establishments during lunch hours.

Standard Mitigation Measures for Construction Combustion Equipment

- Use of alternative fueled or catalyst equipped diesel construction equipment, including all off-road and portable diesel powered equipment.
- Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes as a maximum.
- Limit, to the extent feasible, the hours of operation of heavy-duty equipment and/or the amount of equipment in use.
- Replace fossil fueled equipment with electrically driven equivalents (provided they are not run via a portable generator set).

Enhanced Mitigation Measures for Construction Equipment

To help provide a greater degree of reduction of PM emissions from construction combustion equipment, ICAPCD recommends the following enhanced measures.

- Curtail construction during periods of high ambient pollutant concentrations; this may include ceasing of construction activity during the peak hour of vehicular traffic on adjacent roadways.
- Implement activity management (e.g., rescheduling activities to reduce short-term impacts).

AQ-3 **Dust Suppression.** The project applicant shall employ a method of dust suppression (such as water or chemical stabilization) approved by ICAPCD. The project applicant shall apply chemical stabilization as directed by the product manufacturer to control dust between the panels as approved by ICAPCD, and other non-used areas (exceptions will be the paved entrance and parking area, and Fire Department access/emergency entry/exit points as approved by Fire/Office of Emergency Services [OES] Department).

AQ-4 **Dust Suppression Management Plan.** Prior to any earthmoving activity, the applicant shall submit a construction dust control plan and obtain ICAPCD and Imperial County Planning and Development Services Department (ICPDS) approval.

AQ-5 **Operational Dust Control Plan.** Prior to issuance of a Certificate of Occupancy, the applicant shall submit an operations dust control plan and obtain ICAPCD and ICPDS approval.

ICAPCD Rule 301 Operational Fees apply to any project applying for a building permit. At the time that building permits are submitted for the proposed project, ICAPCD shall review the project to determine if Rule 310 fees are applicable to the project.

Significance After Mitigation

Although the proposed project would not exceed ICAPCD's significance thresholds, Mitigation Measures AQ-1 through AQ-5 would provide additional reduction strategies to further improve air quality and reductions in criteria pollutants (O₃ precursors) and ensure that this potential impact would remain less than significant impact. The proposed project would not conflict with implementation of applicable air quality plans, and impacts would be less than significant impact.

Impact 3.3-2 Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for O3 precursors)?

As shown in Table 3.3-2, the criteria pollutants for which the project area is in non-attainment under applicable air quality standards are O₃ and PM₁₀. The ICAPCD's application of thresholds of significance for criteria air pollutants is relevant to the determination of whether a project's individual emissions would have a cumulatively significant impact on air quality. As discussed above in Impact 3.3-1, the unmitigated emissions of criteria pollutants from project construction and operation activities are below the ICAPCD thresholds of significance. Furthermore, implementation of Mitigation Measures AQ-1 and AQ-2 will ensure compliance with ICAPCD rules and regulations and applicable air quality plan control measures. Therefore, the project's potential to result in a cumulatively considerable net increase of any criteria pollutant is considered less than significant.

Mitigation Measure(s)

No mitigation measures are required.

Impact 3.3-3 Would the project expose sensitive receptors to substantial pollutant concentrations?

The project site is in a generally rural area and surrounded by relatively undisturbed desert lands. Agricultural fields are located to the west of the site. Sensitive receptors located within one mile of the project site consist of a few scattered rural homes, there are no sensitive receptors within 1,500 feet of the project site boundary. Sensitive receptors located within one mile of the project site consist of a few scattered rural homes, the nearest of which is located approximately 2,000 feet southwest of the project site boundary.

Operation of the proposed project would not result in long-term emission sources that would adversely affect nearby sensitive receptors. Short-term construction activities (over a period of approximately 6 to 9 months) could result in temporary increases in pollutant concentrations, as provided in Table 3.3-8. However, emissions of all criteria pollutants are below the ICAPCD thresholds and would not have any significant impact. During construction and operations activities, the proposed project would implement dust control measures (Mitigation Measure AQ-1), including an operational dust control plan (Mitigation Measure AQ-5), to ensure receptors in the project vicinity would not be impacted by the project's long-term dust emissions during operations. The project's emissions of toxic air pollutants would be minimal and would consist of DPM (diesel particulate matter) emissions during construction activities. Employees commuting to the site during project construction or operation would use gasoline-fueled vehicles. As there would be minimal and temporary emissions of DPM during project construction, and the nearest sensitive receptor is approximately 2,000 feet southwest of the project site, implementation of the project would not expose sensitive receptors to substantial pollutant concentrations, and impacts would be less than significant.

Mitigation Measure(s)

No mitigation measures are required.

Impact 3.3-4 Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

An odor impact depends on numerous factors, including the nature, frequency, and intensity of the source; wind speed and direction; and the sensitivity of the receptors. While offensive odors rarely cause any physical harm, they still can be very unpleasant, leading to considerable distress among the public and often generating citizen complaints to local governments and regulatory agencies.

Among possible physical harms is inhalation of volatile organic compounds (VOC) that cause smell sensations in humans. These odors can affect human health in four primary ways:

- The VOCs can produce toxicological effects
- The odorant compounds can cause irritations in the eye, nose, and throat
- The VOCs can stimulate sensory nerves that can cause potentially harmful health effects
- The exposure to perceived unpleasant odors can stimulate negative cognitive and emotional responses based on previous experiences with such odors

Land uses commonly considered to be potential sources of odorous emissions include wastewater treatment plants, sanitary landfills, food processing facilities, chemical manufacturing plants, rendering plants, paint/coating operations, and concentrated agricultural feeding operations and dairies. The construction and operation of a solar farm is not an odor producer.

The nearest sensitive receptor is scattered rural homes approximately 2,000 feet southwest of the project site. Odors from construction equipment would not affect these sensitive receptors, as no odors could affect them at such a distance. Operational activities of the project, including panel washing and routine maintenance, do not have the potential to generate odorous emissions that could affect a substantial number of people. No impact would occur.

Mitigation Measure(s)

No mitigation measures are required.

Impact Analysis – Fiberoptic Cable

The proposed project includes the installation of approximately two miles of fiber optic cable to connect the proposed substation to the existing Niland Substation. The installation process involves aerial stringing of the fiber optic cable between existing transmission poles. No new transmission structures would be required to install the fiberoptic cable.

The installation of the fiberoptic cable would result in short-term construction emissions from the operation of construction equipment and vehicle travel on paved and unpaved surfaces. However, construction emissions are not anticipated to exceed ICAPCD thresholds because the installation of the fiberoptic cable would not require grading or the use of a substantial number of heavy construction equipment. Furthermore, all construction projects within Imperial County must comply with the requirements of ICAPCD Regulation VIII for the control of fugitive dust. In addition, the ICAPCD's Air Quality Handbook lists additional feasible mitigation measures that may be warranted to control emissions of fugitive dust and combustion exhaust. The proposed fiber optic cable would result in a less than significant air quality impact.

3.3.4 Decommissioning/Restoration and Residual Impacts

Decommissioning/Restoration

If at the end of the PPA term, no contract extension is available for a power purchaser, no other buyer of the energy emerges, or there is no further funding of the project, the project will be decommissioned and dismantled. Similar to construction activities, decommissioning and restoration of the project site would generate air emissions. A summary of the daily construction emissions for the project is provided in Table 3.3-8. Solar equipment has a lifespan of approximately 20 to 25 years. The emissions from on- and off-road equipment during decommissioning are expected to be significantly lower than project construction emissions, as the overall activity would be anticipated to be lower than project construction activity. No significant air quality impacts are anticipated during decommissioning and restoration of the project site. However, all construction projects within Imperial County must comply with the requirements of ICAPCD Regulation VIII for the control of fugitive dust. In addition, the ICAPCD's Air Quality Handbook lists additional feasible mitigation measures that may be warranted to control emissions of fugitive dust and combustion exhaust. Mitigation Measures AQ-1 through AQ-5 would provide additional reduction strategies to further improve air quality. Therefore, a less than significant impact is identified during decommissioning and site restoration of the project site.

Residual

The proposed project would not result in short-term significant air quality impacts during construction. Implementation of Mitigation Measures AQ-1 and AQ-2 would provide additional reduction strategies to reduce ROG, NO_x, PM₁₀, and CO emissions during construction. Operation of the project, subject to the approval of a CUP, would be consistent with applicable federal, state, regional, and local plans and policies. Implementation of Mitigation Measures AQ-3, AQ-4, and AQ-5 would ensure that fugitive dust emissions would be reduced during construction and operations. The project would not result in any residual operational significant and unavoidable impacts with regards to air quality.