SECTION 4.1

AIR QUALITY/ GREENHOUSE GAS EMISSIONS

This section identifies federal, state and local regulations applicable to air quality as well as the state laws pertaining to Greenhouse Gases (GHGs). This section also describes the environmental setting with regard to compliance with applicable standards. In addition, this section analyzes potential air quality and GHG impacts associated with construction, operation and decommissioning of the proposed Battery Energy Storage System. Information contained in this section is summarized from the *Air Quality Assessment Battery Storage System for Campo Verde Solar Facility* (Ldn 2016a) and the Campo Verde Battery Storage Facility Greenhouse Gas (GHG) Screening Letter (Lnd 2016b) both prepared by Ldn Consulting, Inc. These documents are provided on the attached CD of Technical Appendices as **Appendix B** of this SEIR.

4.1.1 REGULATORY FRAMEWORK

A. FEDERAL

The Federal Air Quality Standards were developed per the requirements of the federal Clean Air Act, which was passed in 1970 and amended in 1990. This law provides the basis for the national air pollution control effort. The Clean Air Act established two types of air quality standards; primary and secondary standards. ***Primary Standards*** define limits for the intention of protecting public health, which includes sensitive populations such as asthmatics, children and the elderly. ***Secondary Standards*** define limits to protect public welfare which includes protection against decreased visibility, damage to animals, crops, vegetation and buildings.

Clean Air Act

The Clean Air Act (CCA) was enacted in 1970 to foster growth in the economy and industry while improving human health and the environment. This law provides the basis for the national air pollution control effort. In order to improve air quality, the CCA requires areas with unhealthy levels of criteria pollutants to develop State Implementation Plans (SIPs). A SIP describes how and when National Ambient Air Quality Standards (NAAQS) will be attained for a specific area. SIPs are a compilation of state and local regulations used by the state to achieve healthy air quality under the Federal Clean Air Act. SIPs are comprised of new and previously submitted plans, monitoring programs, modeling programs, permitting programs, district rules, state regulations, and federal controls. State and local agencies are required to involve the public in the adoption process before SIP elements are submitted to the Environmental Protection Agency (EPA) for approval or disapproval. Likewise, the EPA is required to allow public comment prior to taking action on each SIP submittal. If the SIP is not acceptable to the EPA, the EPA has authority to enforce the CCA in that state.

The most recent major changes to the CCA occurred in 1990. The 1990 amendments established new deadlines for attainment based on the severity of the pollution problem. The amendments also instigated a comprehensive planning process for attaining the NAAQS. In 1997, new national 8-hour ozone (O_3) standards and the fine particulate matter ($PM_{2.5}$) standards were introduced. These new standards resulted in additional statewide air quality planning efforts.

The consistency of projects with the SIP is assessed through land use and growth assumptions that are incorporated into the air quality planning document. If a proposed Project is consistent with the applicable General Plan of the jurisdiction where it is located, then the project is assumed to be accounted for as part of the regional air quality planning process. When a project is consistent in this regard, it would not have an adverse regional air quality impact.

National Ambient Air Quality Standards

The National Air Quality Standards (NAAQS) were established by the EPA per the requirements of the CCA. The NAAQS are used to identify thresholds for specific pollutants. Two types of air quality standards were established by the CCA: 1) primary standards; and 2) secondary standards. Primary Standards define limits for the intention of protecting public health, which includes sensitive populations such as asthmatics, children and elderly. Secondary Standards define limits to protect public welfare to include protection against decreased visibility, damage to animals, crops, vegetation and buildings.

Definitions and Terminology

The EPA Office of Air Quality Planning and Standards (OAQPS) has set NAAQS for principal pollutants, which are called "criteria" pollutants. The terms listed below are used to describe air pollutants (Ldn 2016, p. 8-9). To facilitate understanding of this section, the definitions of each pollutant is provided as an introduction to the environmental setting for air quality. While some of the terms are technical in nature, these acronyms and abbreviations are essential to describe and characterize criteria pollutants.

Carbon Monoxide (CO) is a colorless, odorless, and tasteless gas and is produced from the partial combustion of carbon-containing compounds, notably in internal-combustion engines. CO usually forms when there is a reduced availability of oxygen present during the combustion process. Exposure to CO near the levels of the ambient air quality standards can lead to fatigue, headaches, confusion, and dizziness. CO interferes with the blood's ability to carry oxygen.

Lead (Pb) is a potent neurotoxin that accumulates in soft tissues and bone over time. The major sources of lead emissions have historically been motor vehicles (such as cars and trucks) and industrial sources. Because lead is only slowly excreted, exposures to small amounts of lead from a variety of sources can accumulate to harmful levels. Effects from inhalation of lead near the level of the ambient air quality standard include impaired blood formation and nerve conduction. Lead can adversely affect the nervous, reproductive, digestive, immune, and blood-forming systems. Symptoms can include fatigue, anxiety, short-term memory loss, depression, weakness in the extremities, and learning disabilities in children.

Nitrogen Dioxide (NO_2) is a reactive, oxidizing gas capable of damaging cells lining the respiratory tract and is one of the nitrogen oxides emitted from high-temperature combustion, such as those occurring in trucks, cars, power plants, home heaters, and gas stoves. In the presence of other air contaminants, NO_2 is usually visible as a reddish-brown air layer over urban areas. NO_2 along with other traffic-related pollutants is associated with respiratory symptoms, respiratory illness and respiratory impairment. Studies in animals have reported biochemical, structural, and cellular changes in the lung when exposed to NO_2 above the level of the current state air quality standard. Clinical studies of human subjects suggest that NO_2 exposure to levels near the current standard may worsen the effect of allergens.

Particulate Matter (P_{M10} or $P_{M2.5}$) is a complex mixture of tiny particles that consists of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. These particles vary in shape, size and chemical composition, and can be made up of multiple materials such as metal, soot, soil, and dust. P_{M10} particles are 10 microns (µm) or less and $P_{M2.5}$ particles are 2.5 (µm) or less Exposure to PM levels exceeding current air quality standards increases the risk of allergies such as asthma and respiratory illness.

Ozone (O_3) is a highly oxidative unstable gas capable of damaging the linings of the respiratory tract. This pollutant forms in the atmosphere through reactions between chemicals directly emitted from vehicles, industrial plants, and many other sources. Exposure to ozone above ambient air quality standards can lead to human health effects such as lung inflammation, tissue damage and impaired lung functioning.

Sulfur Dioxide (SO_2) is a gaseous compound of sulfur and oxygen and is formed when sulfur-containing fuel is burned by mobile sources, such as locomotives, ships, and off-road diesel equipment. SO_2 is also emitted from several industrial processes, such as petroleum refining and metal processing. Effects from SO_2 exposures at levels near the one-hour standard include bronchoconstriction accompanied by symptoms, which may include wheezing, shortness of breath and chest tightness, especially during exercise or physical activity. Continued exposure at elevated levels of SO_2 results in increased incidence of pulmonary symptoms and disease, decreased pulmonary function, and increased risk of mortality.

Table 4.1-1 identifies the federal air quality standard for specific pollutants. An area is designated as being in attainment if the concentration of a specific air pollutant does not exceed the standard for that pollutant. An area is designated as being in non-attainment for a specific pollutant if the standard for that pollutant is exceeded. The criteria pollutant standards are generally attained when each monitor within the region has had no exceedances during the previous three calendar years.

TABLE 4.1-1
AMBIENT AIR QUALITY STANDARDS

Pollutant	Average Time	California Standards[1]		Federal Standards[2]		
		Concentration[3]	Method[4]	Primary[3,5]	Secondary[3,6]	Method[7]
Ozone (O_3)	1 Hour	0.09 ppm (180 µg/m3)	Ultraviolet Photometry	-	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m3)		0.075 ppm (147 µg/m3)		
Respirable Particulate Matter (PM_{10})	24 Hour	50 µg/m3	Gravimetric or Beta Attenuation	150 µg/m3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m3		-		
Fine Particulate Matter $PM_{2.5}$[9]	24 Hour	No Separate State Standard		35 µg/m3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m3	Gravimetric or Beta Attenuation	12.0 µg/m3	15 µg/m3	
Carbon Monoxide (CO)	8 hour	9.0 ppm (10mg/m3)	Non-Dispersive Infrared Photometry (NDIR)	9 ppm (10 mg/m3)	-	Non-Dispersive Infrared Photometry
	1 hour	20 ppm (23 mg/m3)		35 ppm (40 mg/m3)		
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m3)		-	-	-
Nitrogen Dioxide (NO_2)[10]	Annual Arithmetic Mean	0.030 ppm (57 µg/m3)	Gas Phase Chemiluminescence	0.053 ppm (100 g/m3)[8]	Same as Primary Standard	Gas Phase Chemilum-inescence
	1 Hour	0.18 ppm (339 µg/m3)		0.100 ppm[8] (188 g/m3)[8]	-	

TABLE 4.1-1
AMBIENT AIR QUALITY STANDARDS

Pollutant	Average Time	California Standards[1]		Federal Standards[2]		
Sulfur Dioxide (SO_2)[11]	Annual Arithmetic Mean	-	Ultraviolet Fluorescence	0.030 ppm[10] (for Certain Areas)	-	Ultraviolet Flourescence; Spectro-photometry (Pararoosaniline Method)[9]
	24 Hour	0.04 ppm (105 µg/m3)		0.14 ppm[10] (for Certain Areas) (See Footnote 9)	-	
	3 Hour	-		-	0.5 ppm (1300 µg/m3)	
	1 Hour	0.25 ppm (655 µg/m3)		75 ppb (196 µg/m3) (See	-	
Lead[12,13]	30 Day Average	1.5 µg/m3	Atomic Absorption	-		-
	Calendar Quarter	-		1.5 µg/m3	Same as Primary Standard	High Volume Sampler and Atomic Absorption
	Rolling 3-Month Average	-		0.15 µg/m3		
Visibility Reducing Particles	8 Hour	See Footnote 13				
Sulfates	24 Hour	25 µg/m3	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m3)	Ultraviolet Fluorescence			
Vinyl Chloride[10]	1 Hour	0.01 ppm (26 g/m3)	Gas Chromatography			

Source: California Air Resources Control Board, October 1, 2015.

1. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM10, PM2.5, 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 ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m3 is equal to or less than one. For PM2.5, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.
3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
4. Any equivalent procedure which can be shown to the satisfaction of the CARB to give equivalent results at or near the level of the air quality standard may be used.
5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
7. Reference method as described by the EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the EPA.
8. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.
9. On December 14, 2012, the national annual PM2.5 primary standard was lowered from 15 µg/m3 to 12.0 µg/m3 . The existing national 24- hour PM2.5 standards (primary and secondary) were retained at 35 µg/m3 , as was the annual secondary standard of 15 µg/m3 . The

existing 24-hour PM10 standards (primary and secondary) of 150 µg/m3 also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

10. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.
11. On June 2, 2010, a new 1-hour SO2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated non-attainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.
12. The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
13. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 µg/m3 as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated non-attainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.
14. In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

California Ambient Air Quality Standards

The State of California Air Resources Board (CARB) sets the laws and regulations for air quality on the state level. CARB has established the California Ambient Air Quality Standards (CAAQS), which include the six federal criteria air pollutants identified as well as the following four air pollutants. The CAAQS are either the same as, or more restrictive than, the NAAQS. **Table 4.1-1** above identifies both the NAAQS and CAAQS (Ldn 2016, p. 9).

Visibility Reducing Particles: particles in the air that obstruct visibility.

Sulfates are salts of Sulfuric Acid. Sulfates occur as microscopic particles (aerosols) resulting from fossil fuel and biomass combustion. They increase the acidity of the atmosphere and form acid rain.

Hydrogen Sulfide (H_2S) is a colorless, toxic and flammable gas with a recognizable smell of rotten eggs or flatulence. Usually, H_2S is formed from bacterial breakdown of organic matter. Exposure to low concentrations of hydrogen sulfide may cause irritation to the eyes, nose, or throat.

Vinyl Chloride is also known as chloroethene and is a toxic, carcinogenic, colorless gas with a sweet odor. It is an industrial chemical mainly used to produce its polymer, polyvinyl chloride (PVC).

Assembly Bill 32, California Global Warming Solutions Act of 2006

The State of California Greenhouse Gas laws are based on the "the California Global Warming Solutions Act of 2006" (AB 32). AB 32 requires the CARB to adopt rules and regulations that would reduce GHG emissions to 1990 levels by 2020 and is outlined by CARB (CARB 2014).

As part of AB32 (Section 38562-A), the state board was mandated to adopt GHG emission limits and emission reduction measures before January 1, 2011. Enforcement began January 1, 2012. Currently, GHG emission limits for industrial projects have not been adopted by the State or Imperial County.

California Air Pollution Control Officers Association

The California Air Pollution Control Officers Association (CAPCOA) published a white paper which suggested screening criteria of 900 metric tons of GHGs (CAPCOA 2010). Projects creating more than 900 metric tons of GHGs generally are considered significant and would require reduction

measures from business as usual with a goal of 28.3%. These screening and reduction thresholds will be used for the proposed Project.

Regional Air Standards

The State of California has 35 specific air districts, which are each responsible for ensuring that the criteria pollutants are below the NAAQS and CAAQS. Air basins that exceed either the NAAQS or the CAAQS for any criteria pollutants are designated as "non-attainment areas" for that pollutant. Currently, there are 15 non-attainment areas for the federal ozone standard and two non-attainment areas for the PM2.5 standard. The state therefore created the California State Implementation Plan (SIP), which is designed to provide control measures needed for California Air basins to attain ambient air quality standards.

The Imperial County Air Pollution Control District (ICAPCD) is the government agency which regulates stationary sources of air pollution within Imperial County and the Salton Sea Air Basin (SSAB). Currently, the SSAB is in "non-attainment" status for O_3 and serious non-attainment of PM10. Therefore, the ICAPCD developed an Ambient Air Quality Plan (AAQP) to provide control measures to try to achieve attainment status. The AAQP was adopted in 1991. A new NAAQS for ozone was adopted by EPA in 1997 and required modified strategies to decrease higher ozone concentrations. In order to guide non-attainment areas closer to NAAQS requirements an 8-hr Ozone Air Quality Management Plan (AQMP) was approved by ICAPCD in 2009 and was accepted by the EPA in 2010. Similarly, in 2009 the County revised its SIP to address the serious non-attainment status of PM 10. The purpose of the SIP is to outline a plan that would provide attainment status as expeditiously as possible and require a 5% yearly reduction of emissions. The criteria pollutant standards are generally attained when each monitor within the region that has had no exceedances during the previous three calendar years.

B. LOCAL

Imperial County Air Pollution Control District

As previously mentioned, the State is divided into Air Pollution Control Districts (APCD) and Air Quality Management Districts (AQMD). These agencies are county or regional governing authorities that have primary responsibility for controlling air pollution from stationary sources. The Imperial County Air Pollution Control District (ICAPCD) covers all of Imperial County which includes a portion of the SSAB. The ICAPCD is primarily responsible for monitoring air quality within the County, enforcing regulations for new and existing stationary sources within the Imperial County portion of SSAB, and planning, implementing, and enforcing programs designed to attain and maintain state and federal ambient air quality standards within the District.

The ICAPCD has not adopted GHG thresholds for development projects. However, ICAPCD has adopted Rule 904, Prevention of Significant Deterioration (PSD) Program, to regulate GHG emissions for new and modified major stationary sources. Affected sources will be subject to the Best Available Control Technology (BACT), which considers technical feasibility, cost and other energy, environmental and economic impacts. Rule 904 applies to projects that would result in 75,000 or more tons per year of Carbon Dioxide equivalents (CO_2e).

2009 8-Hour Ozone Modified Air Quality Management Plan (2009 Modified AQMP)

To provide control measures to try to achieve ozone attainment status, Imperial County developed an AAQP. The AAAP was originally adopted by the ICAPCD in 1991. A new standard for ozone was subsequently adopted by EPA in 1997. As a result of the new standards, modified strategies to decrease higher ozone concentrations were required. In response, ICAPCD adopted the 8-hr Ozone Air Quality Management Plan (AQMP) in 2008. The AQMP was intended to guide non-

attainment areas closer to NAAQS requirements. Subsequently, ICAPCD requested further modifications to the AQMP. The final 2009 8-Hour Ozone Modified Air Quality Management Plan (2009 Modified AQMP) was adopted by ICAPCD on July 13, 2010 (ICAPCD 2010).2009 Imperial County State Implementation Plan for Particulate Matter Less than 10 Microns in Aerodynamic Diameter (SIP)

The Imperial Valley is classified as non-attainment for federal and state PM_{10} standards. As a result, the ICAPCD was required to develop a PM_{10} Attainment Plan. The final plan was adopted by the ICAPCD on August 11, 2009 (ICAPCD 2009). The SIP brings together data and discussion regarding particulate matter in Imperial County. The SIP also identifies control strategies to reduce PM_{10} emissions associated with construction and agricultural operations.

Regulation VIII, Fugitive Dust Rules

The ICAPCD has established rules to address fugitive dust (PM_{10}). Regulation VIII, Fugitive Dust Rules, contains rules to reduce the amount of PM_{10} generated from manmade sources within Imperial County. The rules require actions to prevent, reduce, or mitigate the PM_{10} emissions. Specifically, a project must adhere to Rule 801-Construction and Earthmoving Activities, Rule 805-Paved and Unpaved Road, and Rule 806-Conservation Management Practices to reduce PM_{10} emissions.

Compliance with Regulation VIII is mandatory on all construction sites, regardless of the size of project. However, because compliance with Regulation VIII is required for projects, compliance does not constitute mitigation for air quality impacts.

Screening Thresholds

The ICAPCD has established significance thresholds in the *2007 ICAPCD CEQA Handbook for the preparation of Air Quality Impact Assessments* (ICAPCD CEQA Handbook). The screening criteria within this handbook can be used to demonstrate that a project's total emissions would not result in a significant impact as defined by CEQA (refer to Methodology, below).

Rule 310-Operational Development Fee

On November 6, 2007, the ICAPCD Board of Directors adopted Rule 310-Operational Development Fee to assist the District with mitigating air impacts produced from the operation of new commercial and residential developments. The funds generated from Rule 310 for the past fiscal year are redistributed by the ICAPCD for various mitigation projects through a Request for Proposal process.

Imperial County General Plan

The General Plan Conservation and Open Space Element policies related to the proposed project are identified below. **Table 4.1-2** summarizes the project's consistency with the applicable General Plan air quality policies. While this SEIR 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 4.1-2
IMPERIAL COUNTY GENERAL PLAN CONSISTENCY ANALYSIS

General Plan Policies	Consistent with General Plan?	Analysis
Conservation and Open Space Element		
Protection of Air Quality		
Objective 9.1: Ensure that all facilities shall comply with current federal and state requirements for attainment for air quality objectives.	Yes	Short-term emissions resulting from Project construction would be below ICAPCD thresholds. Following construction, the Project would have minimal operational emissions or emissions which would essentially be zero in terms of pounds per day or tons per year. Decommissioning emissions would be similar to construction emissions and are anticipated to be below ICAPCD thresholds. Therefore, the proposed Project is consistent with this objective.
Objective 9.2: Cooperate with all federal and state agencies in the effort to attain air quality objectives.	Yes	The emissions resulting from Project construction, operation and decommissioning would be below ICAPCD thresholds. Nevertheless, the Applicant would be required to comply with ICAPACD Regulation VIII, Fugitive Dust Rules. Therefore, the proposed Project is consistent with this objective.

4.1.2 ENVIRONMENTAL SETTING

Regional and Local Climate/Meteorological Conditions

The project site is located in the SSAB. The SSAB encompasses all of Imperial County and part of Riverside County. Climate within the SSAB experiences mild and dry winters with daytime temperatures ranging from 65° to 75°F, extremely hot summers with daytime temperatures ranging from 104° to 115°F. Imperial County usually receives approximately three inches of rain per year mostly occurring in late summer or mid-winter. Summer weather patterns are dominated by intense heat induction low-pressure areas over the interior desert. The Imperial Valley's flat terrain and strong temperature differentials created by intense heat produce moderate winds and thermal convection.

The general wind speeds in the area are less than 10 mph, but occasionally winds speeds of greater than 30 mph occur during the months of April and May. Statistics reveal that prevailing winds blow from the northwest-northeast; a secondary trend of wind direction from the southeast is also evident (Ldn 2016, p. 7).

Local Air Quality

Criteria pollutants are measured continuously throughout the County of Imperial and the data is used to track ambient air quality patterns throughout the County. As mentioned earlier, this data

is also used to determine attainment status when compared to the NAAQS and CAAQS. The ICAPCD is responsible for monitoring four sites which collect meteorological and criteria pollutant data used by the district to assist with pollutant forecasting, data analysis and characterization of air pollutant transport. Also, a fifth monitoring site is located in the City of Calexico which is monitored by CARB.

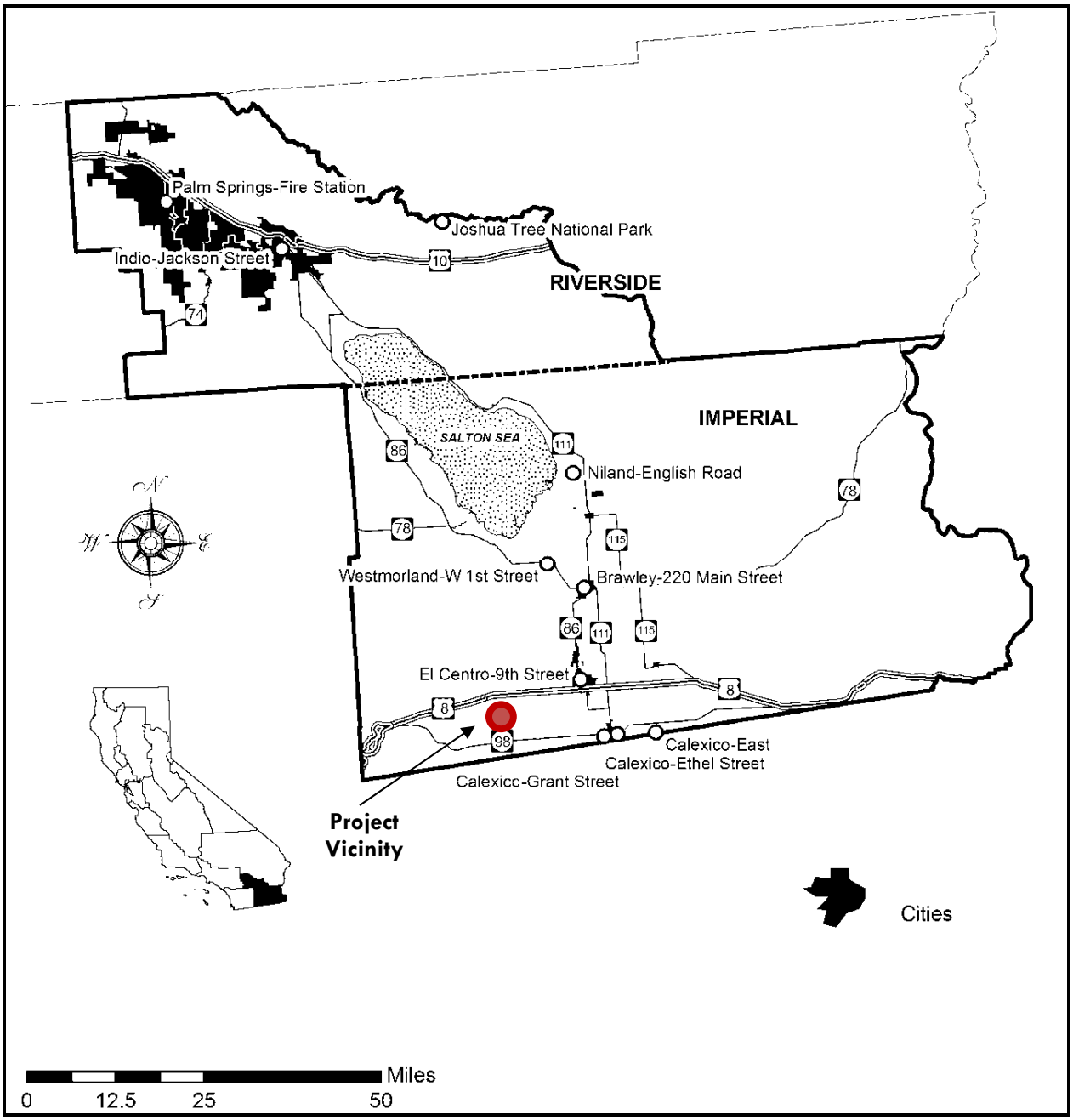
The monitoring station that is closest to the proposed Battery Energy Storage System is the Ethel Street monitoring station in Calexico, which is approximately 14 miles from the Project site. **Table 4.1-3** provides the criteria pollutant levels monitored at these two stations for 2013-2015, which is the most current data at this time. [Ambient data was obtained from the California Environmental Protection Agency's Air Resources Board Website (Source: http://www.arb.ca.gov/adam)]. **Figure 4.1-1** shows the relative locations of the ambient air quality monitoring sites.

Based on review of the ambient data, both Ozone and PM emissions exceed AAQS and therefore are in non-attainment status. The 8-hour Ozone Non-Attainment is considered moderate Non-Attainment while the 24-Hour PM_{10} is considered "Serious" Non-Attainment. Therefore, to comply with the ICAPCDs SIP and AAQP, the project must implement Best Available Control Measure (BACM) and Best Available Control Technology (BACT) as outlined under "B. ICAPCD Air Quality Impact Assessment Screening Thresholds (CEQA)" above.

TABLE 4.1-3
LATEST THREE-YEAR AMBIENT AIR QUALITY DATA NEAR PROJECT SITE

Pollutant	Closest Recorded Ambient Monitoring Site	Averaging Time	CAAQS	NAAQS	2007	2008	2009
O_3 (ppm)	Calexico Ethel Street	1 Hour	0.09 ppm	-	0.110	0.105	0.106
	Calexico Ethel Street	8 Hour	0.070 ppm	0.075 ppm	0.098	0.086	0.082
PM_{10} ($\mu g/m^3$)	Calexico Ethel Street	24 Hour	50 µg/m3	150 µg/m3	141.2	131.8	134.2
$PM_{2.5}$ ($\mu g/m^3$)	Calexico Ethel Street	24 Hour	-	35 µg/m3	36.3	51.7	87.1
	Calexico Ethel Street	Annual Arithmetic Mean	12 µg/m3	15 µg/m3	13.8	13.9	12.9
NO_2 (ppm)	Calexico Ethel Street	Annual Arithmetic Mean	0.030 ppm	0.053 ppm	0.012	N/A	0.011
	Calexico Ethel Street	1 Hour	0.18 ppm	-	0.156	0.094	0.083

Source: Ldn, 2016a, p. 15.
Notes: ppm=Parts per Million $\mu g/m^3$ = Micrograms per meter cubed N/A=Not Available for give year



Source: Ldn 2016a.

FIGURE 4.1-1
AMBIENT AIR QUALITY MONITORING STATIONS (SSAB-CARB)

4.1.3 IMPACTS AND MITIGATION MEASURES

A. STANDARDS OF SIGNIFICANCE

The impact analysis provided below is based on the following State CEQA Guidelines, as listed in Appendix G. The project would result in a significant impact to air quality if it would result in any of the following:

a) Conflict with or obstruct implementation of the applicable air quality plan?

b) Violate any air quality standard or contribute substantially to an existing or project air quality violation?

c) 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 ozone precursors)?

d) Expose sensitive receptors to substantial pollutant concentrations?

e) Create objectionable odors affecting a substantial number of people?

The project would result in a significant impact to climate change and greenhouse gases if it would result in any of the following:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment. For this project, a threshold of 10,000 metric tons of CO_2-equivalent GHG emissions on an annual basis has been established.
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gasses.

B. ICAPCD AIR QUALITY IMPACT ASSESSMENT SCREENING THRESHOLDS (CEQA)

The ICAPCD has established significance thresholds in the 2007 ICAPCD CEQA Handbook for the preparation of Air Quality Impact Assessments (AQIA). The screening criteria within this handbook can be used to determine whether a project's total emissions would result in a significant impact as defined by CEQA. Should emissions be found to exceed these thresholds, additional modeling is required to demonstrate that the project's total air quality impacts are below the state and federal ambient air quality standards. **Table 4.1-4** below shows the screening thresholds for construction and daily operations.

The CEQA handbook further states that any proposed project with a potential to emit less than the Tier I thresholds during operations may potentially still have adverse impacts on the local air quality and would be required to develop an Initial Study to help the Lead Agency determine whether the project would have a less than significant impact. On the other hand, if the proposed project's operational development fits within the Tier II classification, it is considered to have a significant impact on regional and local air quality. Therefore, Tier II projects are required to implement all standard mitigation measures as well as all feasible discretionary mitigation measures. Additionally, ICAPCD defined standard mitigation measures for construction equipment and fugitive PM_{10} must be implemented at all construction sites. The implementation of mitigation measures discretionary, as listed in the ICAPCD CEQA handbook, apply to those construction sites which are 5 acres or more for non-residential developments. Although the proposed Project would disturb less than 5 acres, in an effort to reduce PM_{10} or Fugitive Dust from ambient air, the Project would be required to develop a dust management

TABLE 4.1-4
ICAPCD SCREENING THRESHOLDS FOR CRITERIA POLLUTANTS

Pollutant		Total Emissions (Pounds per Day)
Construction Emissions		
Respirable Particulate Matter (PM_{10} and $PM_{2.5}$)		150
Nitrogen Oxide (NO_x)		100
Carbon Monoxide (CO)		550
Reactive Organic Gases (ROG)		75
Operational Emissions		
Pollutant	Tier I (Pounds per Day)	Tier II (Pounds per Day)
PM_{10} and Sulfur Oxide (SO_x)	< 150	150 or greater
NO_x and ROG	< 55	55 or greater
CO	< 550	550 or greater
Level of Significance:	Less Than Significant	Significant Impact
Level of Analysis:	Initial Study	Comprehensive Air Quality Analysis Report
Environmental Document:	Negative Declaration (ND)	Mitigated ND or EIR

Source: ICAPCD, 2007 in Ldn, 2016a, p.12.

plan consistent with Regulation VIII of ICAPCD's Rules and Regulations. Additionally, the Project would be required to not exceed the 20 percent opacity threshold under Rule 801.

Should the project be sufficiently large enough that operational mitigation measures simply cannot reduce pollutant levels below thresholds of significance, the ICAPCD has adopted the Operation Development Fee under Rule 310 which provides the ICAPCD with a sound method for mitigating the emissions produced from the operation of new commercial and residential development projects. Projects unmitigable through standard procedures are assessed a one-time fee for either Ozone Precursors or PM_{10} impacts, which is based upon either the square footage of the commercial development or the number of residential units. Impacts of this sort are calculated based on the assumption that the worst-case daily emissions are allowed for an entire year and then converted to an annual emission equivalent. Emissions exceeding annual thresholds would pay a fair share sum to reduce impacts to below significance.

Furthermore, to be consistent with the CARB, ICAPCD requires PM_{10} emitted by diesel powered construction equipment (DPM) to be analyzed. DPM can potentially increase the cancer risk for nearby residential receptors if any. Generally, sites increasing the cancer risk between one and ten in one million need to implement toxics best available control technology or impose effective emission limitations, emission control devices or control techniques to reduce the cancer risk. Finally, at no time shall the project increase the cancer risk to over 10 in one million.

B. ISSUES SCOPED OUT

Note that Criterion "d" and "e" were scoped out as part of the CEQA Appendix G Environmental Checklist Form. Criterion "d" was eliminated because the proposed Battery Energy Storage System is located within the boundaries of the Campo Verde Solar Project without any sensitive receptors in close proximity. Construction equipment may create mildly objectionable odors associated with vehicle exhausts. However, this would occur on a temporary basis with no sensitive receptors being affected.

Criterion "e" was eliminated because the proposed Project, as a battery energy storage system, is not anticipated to generate objectionable odors. Construction equipment may create mildly objectionable odors associated with vehicle exhausts. However, this would occur on a temporary basis with no sensitive receptors being affected. Thus no odor impact would occur and this issue is not discussed further in this SEIR.

C. METHODOLOGY

Construction Emissions Calculations

Air Quality impacts related to construction and daily operations were calculated using the latest CalEEMod air quality model, which was developed by ENVIRON International Corporation for South Coast Air Quality Management District (SCAQMD) in 2013. The construction module in CalEEMod is used to calculate the emissions associated with the construction of the project and uses methodologies presented in the US EPA AP-42 document with emphasis on Chapter 11.9. The construction effort and site footprint for the proposed Project is so small that cancer health risks from diesel particulate matter would not be expected. The CalEEMod output for both construction and operations is shown in Attachment A to the Air Quality Assessment Battery Storage System for Campo Verde Solar Facility included as **Appendix B** to this SEIR. Note that the decommissioning emissions are assumed to be similar to construction emissions.

Construction Assumptions

Phase 1 construction is expected to begin in late 2016 for Phase 1 with completion in early 2017. Phase 2 will begin and be completed in 2018. The total number of construction days for both phases will be approximately 226 days. **Table 4.1-5** shows the expected timeframes for the construction processes as well as the expected number of pieces of equipment to complete the Project.

TABLE 4.1-5
EXPECTED CONSTRUCTION EQUIPMENT

Equipment Identification	Proposed Start	Proposed Finish	Quantity
Grading Phase 1 (700 sq. ft. foundation)	12/15/2016	1/18/2017	
Tractors/Loaders/Backhoes			2
Phase 1 Construction (Pour Foundations)	12/15/2016	1/18/2017	
Cement and Mortar Mixers			2
Tractors/Loaders/Backhoes			1
Phase 1 (Crane to set Equipment)	1/5/2017	2/6/2017	
Cranes			1
Phase 1 (Set-up Equipment)	1/5/2017	2/6/2017	
Generator Sets			1
Grading Phase 2 (16,000 sq. ft. Foundations)	5/10/2018	5/23/2018	
Tractors/Loaders/Backhoes			2
Phase 2 Construction (Pour Foundations)	5/24/2018	6/6/2018	
Cement and Mortar Mixers			1
Tractors/Loaders/Backhoes			2

TABLE 4.1-5
EXPECTED CONSTRUCTION EQUIPMENT

Equipment Identification	Proposed Start	Proposed Finish	Quantity
Phase 2 (Crane to set Equipment)	6/7/2018	6/13/2018	
Cranes			1
Phase 2 (Set up Equipment)	5/24/2018	12/19/2018	
Generator Sets			2
Welders			2

Source: Ldn 2016a, p. 17.
This equipment list is based upon equipment inventory within CAIEEMod 2013.2.2. The quantity and types are based upon information provided by Southern Power Company.

Operational Emissions Calculations

The operations and maintenance of the Battery Energy Storage System will be monitored by the six operators currently on-site at the Campo Verde Solar Project. No additional full-time staff is anticipated as part of the Battery Energy Storage System. Maintenance of the internal battery infrastructure will be infrequent and highly specialized. A focused team will be brought in for maintenance of internal battery infrastructure. Thus, there is no anticipated new trip generation for the maintenance and operations of the Battery Energy Storage System. Also, it was assumed that the cumulative net average of the power required to operate the battery storage facility to include electrical demand for HVAC, internal lighting and equipment would be generated from the Campo Verde Solar Project. Though electrical usage from utility providers at night would be expected, the cumulative production/distribution would be production positive yielding a net-zero footprint. Given this, operational air quality impacts would not be expected and are not analyzed further.

Daily operations of the Project will involve primarily periodic maintenance and worker trips only. The proposed project would be monitored in the plant O&M building and remotely, which will minimize the need for project technicians to work onsite. Based on the Traffic Impact Assessment prepared for the Project (refer to **Appendix G** of this SEIR), it was assumed that the Project would not create any new operational traffic trips. Also, it was assumed that the cumulative net average of the power required to operate the Battery Energy Storage System would be generated by the Campo Verde Solar Project. Although the Campo Verde Solar Project would draw electrical energy from the grid at night when solar energy is not being produced, the overall Project would produce more power than it would use, resulting in a cumulative gain and yielding a net zero footprint.

GHG Screening Criteria

As previously discussed under "A. Federal Regulatory Framework, California Air Pollution Control Officers Association", CAPCOA's 2010 white pager suggested a screening criteria threshold of 900 metric tons of GHGs. Projects creating more than 900 metric tons per year of GHGs generally are considered significant and would require reduction measures from a "business as usual" emissions scenario with a goal of 28.3%. For purposes of this analysis in Imperial County, these screening and reduction thresholds will be utilized. Also, the threshold would be for both construction and operations and any overlap between the two. Decommissioning GHGs are assumed to be similar to construction GHGs.

GHGs contributed from the proposed Project include Carbon Dioxide (CO_2), Methane (CH_4), and Nitrous Oxide (N_2O). For purposes of analysis, both CH_4 and N_2O can be converted to an

equivalent amount of CO_2 (CO_2e) by multiplying the calculated levels of CH_4 and N_2O by a Global Warming Potential (GWP). The U.S. EPA publishes GWPs for various GHGs and reports that the GWP for CH_4 and N_2O is 21 and 310 respectively.

GHG Calculations

CO_2e emissions generated from the Project would primarily be from construction and to a lesser extent from operations. While the Project would rely on power from the grid during nighttime hours resulting in on-site indirect electrical usage emissions, overall the Project would produce more power than it would use, resulting in a cumulative gain and yielding a netzero footprint. Given this, electrical GHG emissions would not be expected or would be offset to zero for the site. All GHG emissions will be calculated using the California Emissions Estimator Model (CalEEMod 2013.2.2) which has been approved for use within Imperial County.

D. PROJECT IMPACTS AND MITIGATION MEASURES

Conflict With or Obstruct Air Quality Plan

Impact 4.1.1 Implementation of the proposed Project would increase air pollutant emissions, but would not exceed ICAPCD thresholds. Therefore, impacts with regard to obstructing of an air quality plan are considered **less than significant**.

Construction Emissions

Phase 1 construction is expected to begin in late 2016 for Phase 1 with completion in early 2017. Phase 2 will begin and be completed in 2018. The total number of construction days for both phases will be approximately 226 days. It should be noted however that as a design feature, the Project will only use Tier 4 equipment as defined by CARB. **Table 4.1-6** provides a summary of the construction emissions. Given these findings, minimal fugitive dust impacts are expected during construction.

TABLE 4.1-6
EXPECTED CONSTRUCTION EMISSIONS SUMMARY (POUNDS PER DAY)

Year	ROG	NO_x	CO	PM_{10} (Dust)	PM_{10} (Exhaust)	PM_{10} (Total)	$PM_{2.5}$ (Dust)	$PM_{2.5}$ (Exhaust)	$PM_{2.5}$ (Total)
2016 (lb/day) Unmitigated	1.01	5.41	9.31	10.42	0.38	10.80	1.12	0.35	1.47
2017 (lb/day)	0.86	2.20	6.80	10.42	0.12	10.53	1.12	0.12	1.24
2018 (lb/day)	1.84	6.47	13.88	19.88	0.39	20.28	2.14	0.36	2.51
Significance Threshold (lb/day)	75	100	550	-	-	150	-	-	150
ICAPCD Impact?	No	No	No	-	-	No	-	-	No

Source: Ldn, 2016a, p. 19.

As shown in **Table 4.1-6**, none of the construction emissions would exceed the significance threshold. It should be noted that all ICAPCD standard rule and regulations are required for all construction projects within the County. Based on this, the air quality emissions would be reduced even further from those presented in **Table 4.1-6.** Therefore, Project construction emissions would not exceed the ICAPCD significance threshold and impacts with regard to obstructing an air quality plan would be **less than significant** during Project construction.

Operational Emissions

Operation and maintenance of the Battery Energy Storage System will be monitored by the six operators currently on-site at the existing Campo Verde Solar Project. No additional full-time staff is anticipated to operate the Battery Energy Storage System. Maintenance of the internal battery infrastructure will be infrequent and highly specialized. A focused team will be brought in for maintenance of internal battery infrastructure. Also, it was assumed that the cumulative net average of the power required to operate the battery storage facility to include electrical demand for HVAC, interior lighting and equipment would be generated from the Campo Verde Solar Project. Though electrical usage from utility providers (i.e. the Grid) would be expected to operate equipment at night, the cumulative production/distribution would be production-positive yielding a net-zero footprint. Based on the operational characteristics of the Project, operational air quality impacts would be less than significant. Therefore, impacts with regard to obstructing an air quality plan would be **less than significant** during Project operations.

Decommissioning Emissions

Emissions associated with decommissioning are assumed to be similar to those of construction but would involve dismantling and removing the components of the proposed Project. As with Project construction, decommissioning air quality impacts are anticipated to be below ICAPCD thresholds. Therefore, decommissioning emissions are not expected to exceed the ICAPCD significance threshold and impacts with regard to obstructing an air quality plan or violating an air quality standard would be **less than significant** during Project decommissioning.

Mitigation Measures

None required.

Significance After Mitigation

Not applicable

Violate Any Air Quality Standard/Contribute to an Existing Air Quality Violation

Impact. 4.1.2 The proposed Project would create short-term construction emissions, but would not violate any air quality standards or significantly contribute to existing or project air quality violations. Therefore, impacts associated with violating air quality standards or contributing to existing or project air quality violations are considered **less than significant.**

As analyzed and discussed under Impact 4.1.1, the proposed Project would generate short-term construction emissions. However, diesel construction equipment will utilize Tier IV technologies and the emissions would not exceed ICAPCD thresholds (refer to **Table 4.1-6**). Likewise, once operational, the Project would not generate air emissions because existing Campo Verde Solar Project operational staff would operate the Battery Energy Storage System and no additional vehicle trips would be generated. Decommissioning emissions are anticipated to be similar to construction emissions and are not anticipated to exceed ICAPCD thresholds. Therefore, impacts associated with violating air quality standards or contributing to existing or project air quality violations are considered **less than significant.**

Mitigation Measures

None required.

Significance After Mitigation

Not applicable

4.1.4 CUMULATIVE SETTING, IMPACTS AND MITIGATION MEASURES

A. CUMULATIVE SETTING

The cumulative setting for air quality is the geographic scope encompassed by the SSAB. Currently, the SSAB is either in attainment or unclassified for all federal and state air pollutant standards with the exception of O_3 (8-hour) and PM_{10}. 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. Cumulative projects within the SSAB include any existing, recently approved, proposed, and reasonably foreseeable development envisioned by the Imperial County General Plan. A list of Past, Present and Probable Large-Scale Projects in the vicinity of the Campo Verde Battery Energy Storage System Project is provided in **Table 3.0-1** in Chapter 3.0, Introduction to the Environmental Analysis and Assumptions Used, of this SEIR.

B. CUMULATIVE IMPACTS AND MITIGATION MEASURES

Result in Cumulatively Considerable Net Increase of Criteria Pollutant

Impact 4.1.3 The proposed Project would generate criteria pollutant emissions during construction. However, the Project would not exceed ICAPCD emission threshold levels. Therefore, the proposed Project would result in a **less than cumulatively considerable impact** with regard to a cumulatively considerable net increase of criteria pollutant.

Construction

The projects listed in Table 3.0-1 are past, present and probable large-scale projects in the vicinity of the Campo Verde Battery Energy Storage System Project. As such, the majority of air emissions from these projects would be generated during construction with drastically reduced emissions occurring during operation and maintenance. Decommissioning air quality impacts would be similar to those generated during construction.

The construction phase of the proposed Battery Energy Storage System may contribute to a net increase in one or more criteria pollutants as a result of point and non-point source emissions for which the region is in non-attainment under applicable federal and state ambient air quality standards. As noted above, the Imperial Valley is classified as non-attainment for federal and state PM10 standards. Thus, the Project's contribution to existing criteria pollutants could be cumulatively considerable without mitigation. However, as described under Impact 4.1.1 above, levels of PM10 and NOx construction emissions would be below significance thresholds resulting in less than cumulatively considerable contributions to existing criteria pollutants. The proposed Project will follow all ICAPCD requirements for grading. Also, all diesel equipment will be Tier IV rated. Therefore, no Project-related cumulatively considerable net increases in construction emissions would be expected. In addition, all other cumulative projects are required to comply with ICAPCD Regulation VIII and would also be assumed to implement mitigation measures to reduce their individual construction air quality emissions. In this way, each individual cumulative project would reduce construction emissions on a project-by-project basis resulting in **less than cumulatively considerable contributions** to existing criteria pollutants. Because the proposed Battery Energy Storage System's construction air quality emissions would fall below ICAPCD thresholds, and other cumulative projects would also mitigate construction emissions on a project-by-project basis, impacts associated with a cumulatively considerable net increase of criteria pollutant would be considered **less than cumulatively considerable**.

Operational Emissions

Although no new employees are anticipated to be needed to operate the Battery Energy Storage System to be extremely conservative, emissions resulting from operation of the Battery Energy Storage System for all criteria pollutants were assumed to be two worker vehicle trips per day. Such levels of emissions would not cause localized exceedances, or contribute cumulatively to existing exceedances of the State or federal ozone and PM_{10} standards. Therefore, the proposed Project would not result in cumulatively considerable contributions to air quality standard violations. Operation of the proposed Project, in combination with other cumulative projects identified in Table 3.0-1, would not result in a cumulatively considerable net increase of criteria pollutant and operational emission impact would be considered **less than cumulatively considerable**.

Decommissioning Emissions

Decommissioning air quality impacts would be similar to those generated during construction. During decommissioning, the proposed Project will follow all ICAPCD requirements for fugitive dust control. Also, all diesel equipment will be Tier IV rated. Therefore, no Project-related cumulatively considerable net increases in construction emissions would be expected during decommissioning. In addition, all other cumulative projects are required to comply with ICAPCD Regulation VIII and would also be assumed to implement mitigation measures to reduce their individual decommissioning air quality emissions. In this way, each individual cumulative project would reduce decommissioning emissions on a project-by-project basis resulting in **less than cumulatively considerable contributions** to existing criteria pollutants.

Mitigation Measures

None required.

Significance After Mitigation

Not applicable.

Greenhouse Gas Emissions

Due to the global nature of GHG emissions and their potential effects, GHG emissions generated by an individual project are evaluated on a cumulative basis.

Impact 4.1.4 The proposed Project would generate GHG emissions during construction and decommissioning However, the amount generated would not exceed 900 metric tons per year and none would be generated during Project operation. Therefore, GHG emission impacts are considered **less than significant**.

Phase 1 construction is expected to begin in late 2016 for Phase 1 with completion in early 2017. Phase 2 will begin and be completed in 2018. The total number of construction days for both phases will be approximately 226 days. **Table 4.1-7** below shows the expected timeframes for the construction processes as well as the expected number of pieces of equipment to complete the Project.

Project-Related GHG Construction Emissions

CalEEMod CO2 annual outputs estimated for the construction years over the life of the Project (2016 – 2018) were used in this analysis. **Table 4.1-8** summarizes the emissions calculated using the CalEEMod in Metric Tons. Full CalEEMod calculations are provided in Attachment A to the GHG letter included in **Appendix B** to this SEIR.

TABLE 4.1-7
EXPECTED CONSTRUCTION EQUIPMENT

Equipment Identification	Proposed Start	Proposed Finish	Quantity
Grading Phase 1 (700 SF Foundation)	12/15/2016	1/18/2016	
Tractors/Loaders/Backhoes			2
Phase 1 Construction (Pour Foundations)	12/15/2016	1/18/2017	
Cement and Mortar Mixers			2
Tractors/Loaders/Backhoes			1
Phase 1 (Crane to set Equipment)	1/5/2017	2/6/2017	
Cranes			1
Phase 1 (Set up Equipment)	1/5/2017	2/6/2017	
Generator Sets			1
Grading Phase 2 (16,000 SF Foundations)	5/10/28	5/23/2018	
Tractors/Loaders/Backhoes			2
Phase 2 Construction (Pour Foundations)	5/24/2018	6/6/2018	
Cement and Mortar Mixers			1
Tractors/Loaders/Backhoes			2
Phase 2 (Crane to set Equipment)	6/7/2018	6/13/2018	
Cranes			1
Phase 2 (Set up Equipment)	5/24/2018	12/19/2018	
Generator Sets			2
Welders			2

Source: Ldn 2016b, p. 3.
This equipment list is based upon equipment inventory within CALLEEMOD 2013.2.2. The quantity and types are based upon discussions with the Applicant.

TABLE 4.1-8
EXPECTED CONSTRUCTION EMISSIONS SUMMARY MT/YEAR

Year	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
2016	0.00	15.06	15.06	0.00	0.00	15.11
2017	0.00	6.41	6.41	0.00	0.00	6.43
2018	0.00	98.77	98.77	0.01	0.00	99.03

Source: Ldn 2016b, p. 4.
Expected Construction emissions are based upon CalEEMod modeling assumptions for equipment listed in Table 4.1-8 above.

Based upon the expected CO2e of the Project shown in Table 4.1-8, construction activities would not would generate yearly GHG emissions in excess of the 900 metric ton per year screening threshold. Thus, the proposed Project would have a less than cumulatively considerable contribution to GHG emissions during construction. Likewise, the proposed Project would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs. Therefore, GHG emissions associated with Project construction are considered **less than cumulatively significant**.

Project-Related GHG Operational Emissions

As previously discussed, the Project would be expected to use electrical energy from the Grid during nighttime hours. Thus, the overall Project would produce more power than it would use, resulting in a cumulative gain and yielding a netzero footprint. Furthermore, because the proposed Battery Energy Storage System was designed to have minimal on-site oversight and utilize existing operational staff from the Campo Verde Solar Project, very few vehicular trips will be generated in association with Project operation. In the event of a problem or alarm, a technician would drive to the site to repair the problem. In order for the model to work properly, an average daily trip generation of two trips was used as input. Because the model inputs are so small, GHG emissions were calculated to be nearly zero as shown in the calculations provided in Attachment A to the GHG letter included in **Appendix B** to this SEIR.

Based upon the expected CO2e of the Project shown in **Table 4.1-8**, neither construction activities nor operational activities would generate yearly GHG emissions in excess of the 900 metric ton per year screening threshold. Thus, the proposed Project would have a less than cumulatively considerable contribution to GHG emissions during operations. Likewise, the proposed Project would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs. Therefore, GHG emissions associated with Project operations are considered **less than cumulatively significant**.

Project-Related GHG Decommissioning Emissions

The emissions similar to those identified for construction are also anticipated in association with Project decommissioning and would likewise not exceed 900 metric tons per year. Thus, the proposed Project would have a less than cumulatively considerable contribution to GHG emissions during decommissioning activities. Likewise, the proposed Project would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs. Therefore, GHG emissions associated with decommissioning of the proposed Project are considered **less than cumulatively significant**.