

3.1.3 Greenhouse Gas Emissions

This section of the Environmental Impact Report (EIR) discusses the significance of the proposed JVR Energy Park Project (Proposed Project) greenhouse gas (GHG) emissions by analyzing the increase in GHG emissions that would result, directly or indirectly, from implementation of the Proposed Project, and examining the Proposed Project relative to relevant planning and policy benchmarks.

The analysis is based on the review of existing resources, technical data, and applicable laws, regulations, and guidelines, as well as the following technical reports prepared for the Proposed Project:

- Greenhouse Gas Emissions Technical Report for the JVR Energy Park Project (Appendix P)
- Proposed Project Revisions Technical Memorandum (Appendix R)
- Energy Generation Technical Memorandum (Appendix V)

Comments received in response to the Notice of Preparation (NOP) included concerns regarding evaluating the construction, operational, and cumulative impacts of the Proposed Project on the environment. These concerns are considered in the preparation of this section where applicable. A copy of NOP and comment letters received in response to the NOP is included in Appendix A of this EIR.

The Proposed Project area has been revised by increasing the Project's setbacks and realigning the existing water main, a net reduction of 17 acres (see Section 1.2 of Chapter 1 in the Final EIR). As described in the Project Modifications Technical Report (Appendix R), these changes will not change any significance determinations in this Section 3.1.3 Greenhouse Gas Emissions. This Section has been revised to account for this change.

3.1.3.1 Existing Conditions

Climate Change Overview

Climate change refers to any significant change in measures of climate, such as temperature, precipitation, or wind patterns, lasting for an extended period of time (decades or longer). The Earth's temperature depends on the balance between energy entering and leaving the planet's system. Many factors, both natural and human, can cause changes in the Earth's energy balance, including variations in the sun's energy reaching the Earth, changes in the reflectivity of the Earth's atmosphere and surface, and changes in the "greenhouse effect," which affects the amount of heat retained by the Earth's atmosphere (EPA 2017).

The “greenhouse effect” is the trapping and build-up of heat in the atmosphere (troposphere) near the Earth’s surface. The greenhouse effect traps heat in the troposphere through a threefold process as follows: Short-wave radiation emitted by the Sun is absorbed by the Earth; the Earth emits a portion of this energy in the form of long-wave radiation; and GHGs in the upper atmosphere absorb this long-wave radiation and emit it into space and toward the Earth. The greenhouse effect is a natural process that contributes to regulating the Earth’s temperature. Human activities that emit additional GHGs to the atmosphere increase the amount of infrared radiation that gets absorbed before escaping into space, thus enhancing the greenhouse effect and causing the Earth’s surface temperature to rise.

The scientific record of the Earth’s climate shows that the climate system varies naturally over a wide range of time scales and that, in general, climate changes prior to the Industrial Revolution in the 1700s can be explained by natural causes, such as changes in solar energy, volcanic eruptions, and natural changes in GHG concentrations. Recent climate changes, in particular the warming observed over the past century, however, cannot be explained by natural causes alone. Rather, it is extremely likely that human activities have been the dominant cause of that warming since the mid-twentieth century and are the most significant driver of observed climate change (EPA 2017; IPCC 2013). Continued emissions of GHGs will cause further warming and changes in all components of the climate system, which is discussed further below under Potential Effects of Climate Change.

Greenhouse Gases

As defined in California Health and Safety Code Section 38505(g), for purposes of administering many of the state’s primary GHG emissions reduction programs, GHGs include carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons, sulfur hexafluoride (SF₆), and nitrogen trifluoride (NF₃) (see also the California Environmental Quality Act [CEQA] Guidelines Section 15364.5). Some GHGs, such as CO₂, CH₄, and N₂O, occur naturally and are emitted to the atmosphere through natural processes and human activities. Of these gases, CO₂ and CH₄ are emitted in the greatest quantities from human activities. Manufactured GHGs, which have a much greater heat-absorption potential than CO₂, include fluorinated gases, such as HFCs, hydrochlorofluorocarbons, perfluorocarbons, and SF₆, and are associated with certain industrial products and processes.

The following paragraphs provide a summary of the GHGs that are estimated in the California Emissions Estimator Model (CalEEMod) and relevant to this section's analysis.^{1,2}

Carbon Dioxide (CO₂). CO₂ is a naturally occurring gas and a by-product of human activities, and is the principal anthropogenic GHG that affects the Earth's radiative balance. Natural sources of CO₂ include respiration of bacteria, plants, animals, and fungus; evaporation from oceans; volcanic out-gassing; and decomposition of dead organic matter. Human activities that generate CO₂ are the combustion of coal, oil, natural gas, and wood.

Methane (CH₄). CH₄ is a flammable gas and is the main component of natural gas. Methane is produced through anaerobic (without oxygen) decomposition of waste in landfills, flooded rice fields, animal digestion, decomposition of animal wastes, production and distribution of natural gas and petroleum, coal production, and incomplete fossil fuel combustion.

Nitrous Oxide (N₂O). Sources of N₂O include soil cultivation practices (microbial processes in soil and water), especially the use of commercial and organic fertilizers, manure management, industrial processes (such as in nitric acid production, nylon production, and fossil-fuel-fired power plants), vehicle emissions, and the use of N₂O as a propellant (such as in rockets, racecars, and aerosol sprays).

Sulfur Hexafluoride (SF₆). SF₆ is a potent greenhouse gas; over a 100-year period, SF₆ is 23,900 times more effective at trapping infrared radiation than an equivalent amount of carbon dioxide. SF₆ is also a very stable chemical, with an atmospheric lifetime of 3,200 years.

The most common use for SF₆ is as an electrical insulator in high-voltage equipment that transmits and distributes electricity. Since the 1950s, the U.S. electric power industry has used SF₆ widely in circuit breakers, gas-insulated substations, and other switchgear used in the transmission system to manage the high voltages carried between generation stations and customer load centers. Fugitive emissions of SF₆ can escape from gas insulated substations and switchgear through seals and can also be released during equipment installation and when equipment is opened for servicing. Several factors affect SF₆ emissions from electric power systems, such as the type and age of the equipment (e.g., older circuit breakers can contain up to 2,000 pounds of SF₆, while modern breakers usually contain less than 100 pounds) and the handling and maintenance procedures practiced by the utilities.

¹ Climate-forcing substances include GHGs and other substances, such as black carbon and aerosols. This section's analysis focuses on the GHGs that are estimated by CalEEMod. However, a brief description of other climate-forcing substances is provided in Appendix P for information purposes.

² The descriptions of these GHGs are summarized from the Intergovernmental Panel on Climate Change (IPCC) Second Assessment Report (IPCC 1995), IPCC Fourth Assessment Report (IPCC 2007), the California Air Resources Board's Glossary of Terms Used in GHG Inventories (CARB 2018), and U.S. Environmental Protection Agency's Glossary of Climate Change Terms (EPA 2016).

GHGs in the atmosphere can contribute to climate change both directly and indirectly. Direct effects occur when the gas itself absorbs radiation. Indirect radiative forcing occurs when chemical transformations of the substance produce other GHGs, when a gas influences the atmospheric lifetimes of other gases, and/or when a gas affects atmospheric processes that alter the radiative balance of the Earth (e.g., affect cloud formation or albedo) (IPCC 2007).

The Intergovernmental Panel on Climate Change (IPCC) developed global warming potential (GWP) values to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. The GWP of a GHG is defined as the ratio of the time-integrated radiative forcing from the instantaneous release of 1 kilogram of a trace substance relative to that of 1 kilogram of a reference gas (IPCC 2014). The reference gas used is CO₂; therefore, GWP-weighted emissions are measured in metric tons (MT) of CO₂ equivalent (CO₂e). CalEEMod (Version 2016.3.2) (CAPCOA 2017) used in this analysis assumes that the GWP for CH₄ is 25 (so emissions of 1 MT of CH₄ are equivalent to emissions of 25 MT of CO₂), and the GWP for N₂O is 298, based on the IPCC's Fourth Assessment Report (IPCC 2007).

Sources of Greenhouse Gas Emissions

Per the U.S. Environmental Protection Agency's (EPA) Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2016, total U.S. GHG emissions were approximately 6,511 million metric tons (MMT) CO₂e in 2016 (EPA 2018). The primary GHG emitted by human activities in the United States was CO₂, which represented approximately 81% of total GHG emissions (5,313 MMT CO₂e). The largest source of CO₂, and of overall GHG emissions, was fossil-fuel combustion, which accounted for approximately 94% of CO₂ emissions in 2016 (4,966 MMT CO₂e). Relative to 1990, gross U.S. GHG emissions in 2016 were higher by 5%, down from a high of 16% above 1990 levels in 2007. GHG emissions decreased from 2015 to 2016 by 2% (83 MMT CO₂e), and overall, net emissions in 2016 were 12% below 2005 levels (EPA 2018).

According to California's 2000–2016 GHG emissions inventory (2018 edition), California emitted 429 MMT CO₂e in 2016, including emissions resulting from out-of-state electrical generation (CARB 2017a). The sources of GHG emissions in California include transportation, industry, electric power production from both in-state and out-of-state sources, residential and commercial activities, agriculture, high GWP substances, and recycling and waste. The California GHG emission source categories and their relative contributions in 2016 are presented in Table 3.1.3-1, Greenhouse Gas Emissions Sources in California.

Between 2000 and 2015, per-capita GHG emissions in California have dropped from a peak of 14.0 MT per person in 2001 to 10.8 MT per person in 2015, representing a 23% decrease. In addition, total GHG emissions in 2015 were approximately 11 MMT CO₂e less than 2014 emissions (CARB 2017a).

According to the GHG inventory data compiled by the Energy Policy Initiative Center (EPIC), in 2010, San Diego County emitted 34.5 MMT CO₂e (EPIC 2013). As outlined in Table 3.1.3-2, San Diego County Greenhouse Gas Emissions by Sectors, 42% of these emissions were generated by on-road transportation sources. Similar to emissions trends statewide, electricity generation is the second biggest emitter.

Potential Effects of Climate Change

Globally, climate change has the potential to affect numerous environmental resources through uncertain impacts related to future air temperatures and precipitation patterns. The IPCC's 2014 Synthesis Report indicated that warming of the climate system is unequivocal, and since the 1950s, many of the observed changes are unprecedented over decades to millennia. Signs that global climate change has occurred include warming of the atmosphere and ocean, diminished amounts of snow and ice, and rising sea levels (IPCC 2014).

Although climate change is driven by global atmospheric conditions, climate change impacts are felt locally. A scientific consensus confirms that climate change is already affecting California. The average temperatures in California have increased, leading to more extreme hot days and fewer cold nights; shifts in the water cycle have been observed, with less winter precipitation falling as snow, and both snowmelt and rainwater running off earlier in the year; sea levels have risen; and wildland fires are becoming more frequent and intense due to dry seasons that start earlier and end later (CAT 2010a, 2010b). A brief summary of current and future climate change impacts to resource areas in California, as discussed in *Safeguarding California: Reducing Climate Risk* (CNRA 2014), is provided below. Additional discussion is provided in Appendix P.

Agriculture. Some of the specific challenges faced by the agricultural sector and farmers include more drastic and unpredictable precipitation and weather patterns; extreme weather events; significant shifts in water availability and water quality; changes in pollinator lifecycles; temperature fluctuations; increased risks from invasive species and weeds, agricultural pests, and plant diseases; and disruptions to the transportation and energy infrastructure supporting agricultural production.

Biodiversity and Habitat. Specific climate change challenges to biodiversity and habitat include species migration, range shift, and novel combinations of species; pathogens, parasites, and disease; invasive species; extinction risks; changes in the timing of seasonal life-cycle events; food web disruptions; and threshold effects (i.e., a change in the ecosystem that results in a “tipping point” beyond which irreversible damage or loss occurs).

Energy. Specific climate change challenges for the energy sector include temperature, fluctuating precipitation patterns, increasing extreme weather events, and sea level rise. Increasing temperatures

and reduced snowpack negatively impact the availability of a steady flow of snowmelt to hydroelectric reservoirs. Higher temperatures also reduce the capacity of thermal power plants since power plant cooling is less efficient at higher ambient temperatures. Natural gas infrastructure in coastal California is threatened by sea level rise and extreme storm events.

Forestry. The most significant climate change related risk to forests is accelerated risk of wildfire and more frequent and severe droughts. Droughts have resulted in more large scale mortalities and combined with increasing temperatures have led to an overall increase in wildfire risks. Increased wildfire intensity subsequently increases public safety risks, property damage, fire suppression and emergency response costs, watershed and water quality impacts, and vegetation conversions. These factors contribute to decreased forest growth, geographic shifts in tree distribution, loss of fish and wildlife habitat, and decreased carbon absorption.

Ocean and Coastal Ecosystems and Resources. Sea level rise, changing ocean conditions, and other climate change stressors are likely to exacerbate long-standing challenges related to ocean and coastal ecosystems in addition to threatening people and infrastructure located along the California coastline and in coastal communities.

Public Health. Climate change can impact public health through various environmental changes and is the largest threat to human health in the twenty-first century. Changes in precipitation patterns affect public health primarily through potential for altered water supplies and extreme events such as heat, floods, droughts, and wildfires. Increased frequency, intensity, and duration of extreme heat and heat waves is likely to increase the risk of mortality due to heat-related illness, as well as exacerbate existing chronic health conditions. Other extreme weather events are likely to negatively impact air quality and increase or intensify respiratory illness such as asthma and allergies.

Transportation. The transportation industry is vulnerable to climate change risks, including sea level rise and erosion, which threaten many coastal California roadways, airports, seaports, transit systems, bridge supports, and energy and fueling infrastructure. Increasing temperatures and extended periods of extreme heat threaten the integrity of the roadways and rail lines. Other forms of extreme weather events, such as extreme storm events, can negatively impact infrastructure, which can impair movement of people and goods, or potentially block evacuation routes and emergency access driveways. Increased wildfires, flooding, erosion risks, landslides, mudslides, and rockslides can all profoundly impact the transportation system and pose a serious risk to public safety.

Water. Climate change could seriously impact the timing, form, amount of precipitation, runoff patterns, and frequency and severity of precipitation events. Higher temperatures reduce the amount of snowpack and lead to earlier snowmelt, which can impact water supply availability,

natural ecosystems, and winter recreation. Water supply availability during the intense dry summer months is heavily dependent on the snowpack accumulated during the winter time. Increased risk of flooding has a variety of public health concerns including water quality, public safety, property damage, displacement and post-disaster mental health problems. Prolonged and intensified droughts can also negatively affect groundwater reserves and result in increased overdraft and subsidence.

In March 2016, the California Natural Resources Agency (CNRA) released *Safeguarding California: Implementation Action Plans*, a document that shows how California is acting to convert the recommendations contained in the 2014 *Safeguarding California* plan into action (CNRA 2016). Additionally, in May 2017, the CNRA released the draft *Safeguarding California Plan: 2017 Update*, which is a survey of current programmatic responses for climate change and contains recommendations for further actions (CNRA 2017).

The CNRA released *Safeguarding California Plan: 2018 Update* in January 2018, which provides a roadmap for state agencies to protect communities, infrastructure, services, and the natural environment from climate change impacts. The 2018 *Safeguarding California Plan* includes 69 recommendations across 11 sectors and more than 1,000 ongoing actions and next steps developed by scientific and policy experts across 38 state agencies (CNRA 2018).

Carbon Sequestration

Carbon sequestration is the process by which CO₂ is removed from the atmosphere and deposited into a carbon reservoir (e.g., vegetation). Trees and vegetation take in CO₂ from the atmosphere during photosynthesis, break down the CO₂, store the carbon within plant parts, and release the oxygen back into the atmosphere (CARB 2015). A development that removes or disturbs existing vegetation results in potential release of sequestered carbon to the atmosphere as CO₂, which would not have been released had there been no land use type change. The planting of new trees and vegetation would store new carbon as their wood mass increases via normal growth.

3.1.3.2 Regulatory Setting

The following text describes executive orders, legislation, regulations, court decisions, and other plans and policies that would directly or indirectly reduce GHG emissions and/or address climate change issues.

Federal

Massachusetts v. EPA. In *Massachusetts v. EPA* (April 2007), the U.S. Supreme Court directed the EPA Administrator to determine whether GHG emissions from new motor vehicles cause or contribute to air pollution that may reasonably be anticipated to endanger public health or welfare,

or whether the science is too uncertain to make a reasoned decision. In December 2009, the EPA Administrator signed a final rule with the following two distinct findings regarding GHGs under Section 202(a) of the federal Clean Air Act:

- The Administrator found that elevated concentrations of GHGs—CO₂, CH₄, N₂O, HFCs, perfluorocarbons, and SF₆—in the atmosphere threaten the public health and welfare of current and future generations. This is the “endangerment finding.”
- The Administrator further found the combined emissions of GHGs—CO₂, CH₄, N₂O, and HFCs—from new motor vehicles and new motor vehicle engines contribute to the GHG air pollution that endangers public health and welfare. This is the “cause or contribute finding.”

These two findings were necessary to establish the foundation for regulation of GHGs from new motor vehicles as air pollutants under the Clean Air Act.

Energy Independence and Security Act. The Energy Independence and Security Act of 2007 (December 2007), among other key measures, would do the following, which would aid in the reduction of national GHG emissions:

- Increase the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard requiring fuel producers to use at least 36 billion gallons of biofuel in 2022.
- Set a target of 35 miles per gallon for the combined fleet of cars and light trucks by model year 2020 and direct the National Highway Traffic Safety Administration (NHTSA) to establish a fuel economy program for medium- and heavy-duty trucks and create a separate fuel economy standard for work trucks.
- Prescribe or revise standards affecting regional efficiency for heating and cooling products and procedures for new or amended standards, energy conservation, energy efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances.

Federal Vehicle Standards. In response to the U.S. Supreme Court ruling in *Massachusetts v. EPA*, the George W. Bush Administration issued Executive Order (EO) 13432 in 2007 directing EPA, the Department of Transportation, and the Department of Energy to establish regulations that reduce GHG emissions from motor vehicles, non-road vehicles, and non-road engines by 2008. In 2009, the NHTSA issued a final rule regulating fuel efficiency and GHG emissions from cars and light-duty trucks for model year 2011; and, in 2010, the EPA and NHTSA issued a final rule regulating cars and light-duty trucks for model years 2012–2016 (75 FR 25324–25728).

In 2010, President Obama issued a memorandum directing the Department of Transportation, Department of Energy, EPA, and NHTSA to establish additional standards regarding fuel

efficiency and GHG reduction, clean fuels, and advanced vehicle infrastructure. In response to this directive, the EPA and NHTSA proposed stringent, coordinated federal GHG and fuel economy standards for model years 2017–2025 light-duty vehicles. The proposed standards projected to achieve 163 grams per mile of CO₂ by model year 2025, on an average industry fleet-wide basis, which is equivalent to 54.5 miles per gallon if this level were achieved solely through fuel efficiency. The final rule was adopted in 2012 for model years 2017–2021 (77 FR 62624–63200). On April 2, 2018, the EPA Administrator signed the Mid-term Evaluation Final Determination, which finds that the model year 2022–2025 GHG standards are not appropriate in light of the record before the EPA and, therefore, should be revised (EPA 2018).

In addition to the regulations applicable to cars and light-duty trucks described above, in 2011, the EPA and NHTSA announced fuel economy and GHG standards for medium- and heavy-duty trucks for model years 2014–2018 (76 FR 57106–57513). The standards for CO₂ emissions and fuel consumption are tailored to three main vehicle categories: combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles. According to the EPA, this regulatory program will reduce GHG emissions and fuel consumption for the affected vehicles by 6% to 23% over the 2010 baselines.

In August 2016, the EPA and NHTSA announced the adoption of the phase two program related to the fuel economy and GHG standards for medium- and heavy-duty trucks. The phase two program will apply to vehicles with model years 2018 through 2027 for certain trailers, and model years 2021 through 2027 for semi-trucks, large pickup trucks, vans, and all types of sizes of buses and work trucks. The final standards are expected to lower CO₂ emissions by approximately 1.1 billion MT and reduce oil consumption by up to 2 billion barrels over the lifetime of the vehicles sold under the program (EPA and NHTSA 2016).

The Current Administration. President Biden and the EPA are working on reversing President Trump's and the EPA have stated their intent to executive orders and directions to halt various federal regulatory activities to reduce GHG emissions. President Biden has committed the United States to joining the Paris Agreement and allowing California to set their own fuel economy standard. The Biden administration is also calling on the EPA to review a highly consequential roll back of methane emission regulations for the oil and gas industry. The Biden administration has set a goal for the United States to be carbon neutral by 2050, have a carbon pollution-free power sector by 2035, and reduce emissions 50% to 52% from 2005 levels by 2030. California and other states have stated their intent to challenge federal actions that would delay or eliminate GHG reduction measures and have committed to cooperating with other countries to implement global climate change initiatives. The timing and consequences of these types of federal decisions and potential responses from California and other states are speculative at this time.

State

The statewide GHG emissions regulatory framework is summarized below by category: state climate change targets, building energy, renewable energy and energy procurement, mobile sources, solid waste, water, and other state regulations and goals. Refer to Appendix P for an expanded list of state laws, regulations, and policies related to GHG emissions and climate change.

State Climate Change Targets

EO S-3-05. EO S-3-05 (June 2005) established the following statewide goals: GHG emissions should be reduced to 2000 levels by 2010, GHG emissions should be reduced to 1990 levels by 2020, and GHG emissions should be reduced to 80% below 1990 levels by 2050.

Assembly Bill 32 and CARB's Climate Change Scoping Plan. In furtherance of the goals established in EO S-3-05, the Legislature enacted Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006. AB 32 requires California to reduce its GHG emissions to 1990 levels by 2020.

Under AB 32, the California Air Resources Board (CARB) is responsible for and is recognized as having the expertise to carry out and develop the programs and requirements necessary to achieve the GHG emissions reduction mandate of AB 32. Under AB 32, CARB must adopt regulations requiring the reporting and verification of statewide GHG emissions from specified sources. This program is used to monitor and enforce compliance with established standards. CARB also is required to adopt rules and regulations to achieve the maximum technologically feasible and cost-effective GHG emission reductions. AB 32 relatedly authorized CARB to adopt market-based compliance mechanisms to meet the specified requirements. Finally, CARB is ultimately responsible for monitoring compliance and enforcing any rule, regulation, order, emission limitation, emission reduction measure, or market-based compliance mechanism adopted.

In 2007, CARB approved a limit on the statewide GHG emissions level for year 2020 consistent with the determined 1990 baseline (427 MMT CO₂e). CARB's adoption of this limit is in accordance with Health and Safety Code Section 38550.

Further, in 2008, CARB adopted the Climate Change Scoping Plan: A Framework for Change (Scoping Plan) in accordance with Health and Safety Code Section 38561. The Scoping Plan establishes an overall framework for the measures that will be adopted to reduce California's GHG emissions for various emission sources/sectors to 1990 levels by 2020. The Scoping Plan evaluates opportunities for sector-specific reductions, integrates all CARB and Climate Action Team early actions and additional GHG reduction features by both entities, identifies additional measures to be pursued as regulations, and outlines the role of a cap-and-trade program.

In 2014, CARB adopted the First Update to the Climate Change Scoping Plan: Building on the Framework (First Update). The stated purpose of the First Update is to “highlight California’s success to date in reducing its GHG emissions and lay the foundation for establishing a broad framework for continued emission reductions beyond 2020, on the path to 80% below 1990 levels by 2050.” The First Update found that California is on track to meet the 2020 emissions reduction mandate established by AB 32, and noted that California could reduce emissions further by 2030 to levels squarely in line with those needed to stay on track to reduce emissions to 80% below 1990 levels by 2050 if the state realizes the expected benefits of existing policy goals (CARB 2014).

In conjunction with the First Update, CARB identified “six key focus areas comprising major components of the state’s economy to evaluate and describe the larger transformative actions that will be needed to meet the state’s more expansive emission reduction needs by 2050.” Those six areas are energy transportation (vehicles/equipment, sustainable communities, housing, fuels, and infrastructure), agriculture water waste management, and natural and working lands. The First Update identifies key recommended actions for each sector that will facilitate achievement of EO S-3-05’s 2050 reduction goal (CARB 2014).

Based on CARB’s research efforts presented in the First Update, it has a “strong sense of the mix of technologies needed to reduce emissions through 2050.” Those technologies include energy demand reduction through efficiency and activity changes; large-scale electrification of on-road vehicles, buildings and industrial machinery; decarbonizing electricity and fuel supplies; and the rapid market penetration of efficient and clean energy technologies (CARB 2014).

In January 2017, CARB released The 2017 Climate Change Scoping Plan Update (Second Update) for public review and comment (CARB 2017b). This update proposes CARB’s strategy for achieving the state’s 2030 GHG target as established in Senate Bill (SB) 32 (discussed later in this section under the heading SB 32 and AB 197). The Second Update was approved by CARB’s Governing Board on December 14, 2017 (CARB 2017b).

EO B-30-15. EO B-30-15 (April 2015) identified an interim GHG reduction target in support of targets previously identified under EO S-3-05 and AB 32. EO B-30-15 set an interim target goal of reducing statewide GHG emissions to 40% below 1990 levels by 2030 to keep California on its trajectory toward meeting or exceeding the long-term goal of reducing statewide GHG emissions to 80% below 1990 levels by 2050 as set forth in EO S-3-05. To facilitate achievement of this goal, EO B-30-15 calls for an update to CARB’s Scoping Plan to express the 2030 target in terms of MMT CO_{2e}. The EO also calls for state agencies to continue to develop and implement GHG emission reduction programs in support of the reduction targets. EO B-30-15 does not require local agencies to take any action to meet the new interim GHG reduction target.

SB 32, AB 197, and EO B-55-18. SB 32 and AB 197 (enacted in 2016) are companion bills that set a new statewide GHG reduction target, make changes to CARB’s membership and increase legislative oversight of CARB’s climate change-based activities, and expand dissemination of GHG and other air quality-related emissions data to enhance transparency and accountability. More specifically, SB 32 codified a 2030 emissions reduction target that requires CARB to ensure that statewide GHG emissions are reduced to 40% below 1990 levels by 2030. AB 197 established the Joint Legislative Committee on Climate Change Policies, consisting of at least three members of the Senate and three members of the Assembly, to provide ongoing oversight over implementation of the state’s climate policies. AB 197 also adds two members of the Legislature to CARB as nonvoting members, requires CARB to make available and update (at least annually via its website) emissions data for GHGs and other pollutants from reporting facilities, and requires CARB to identify specific information for GHG emissions reduction measures when updating the Scoping Plan. EO B-55-18 (September 2018) establishes a new statewide goal “to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter.” This executive order directs CARB to “work with relevant state agencies to ensure future Scoping Plans identify and recommend measures to achieve the carbon neutrality goal.”

SB 605 and SB 1383. SB 605 (2014) requires CARB to complete a comprehensive strategy to reduce emissions of short-lived climate pollutants (SLCPs) in the state; SB 1383 (2016) required CARB to approve and implement the SLCP reduction strategy. SB 1383 also establishes specific targets for the reduction of SLCPs (40% below 2013 levels by 2030 for CH₄ and HFCs, and 50% below 2013 levels by 2030 for anthropogenic black carbon), and provides direction for reductions from dairy and livestock operations and landfills. Accordingly, and as mentioned above, CARB adopted its Short-Lived Climate Pollutant Reduction Strategy (SLCP Reduction Strategy) in March 2017. The SLCP Reduction Strategy establishes a framework for the statewide reduction of emissions of black carbon, methane, and fluorinated gases.

Building Energy

Title 24, Part 6. Title 24 of the California Code of Regulations was established in 1978 and serves to enhance and regulate California’s building standards. Although not initially promulgated to reduce GHG emissions, Part 6 of Title 24 specifically establishes Building Energy Efficiency Standards that are designed to ensure new and existing buildings in California achieve energy efficiency and preserve outdoor and indoor environmental quality. The California Energy Commission (CEC) is required by law to adopt standards every 3 years that are cost effective for homeowners over the 30-year lifespan of a building. These standards are updated to consider and incorporate new energy-efficient technologies and construction methods. As a result, these standards save energy, increase electricity supply reliability, increase indoor comfort, avoid the need to construct new power plants, and help preserve the environment.

Title 24, Part 11. In addition to the CEC's efforts, in 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (Part 11 of Title 24) is commonly referred to as CALGreen, and establishes minimum mandatory standards as well as voluntary standards pertaining to the planning and design of sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and interior air quality. The CALGreen standards took effect in January 2011 and instituted mandatory minimum environmental performance standards for all ground-up, new construction of commercial, low-rise residential, and state-owned buildings, schools, and hospitals. The CALGreen 2016 standards became effective on January 1, 2017.

Title 20. Title 20 of the California Code of Regulations requires manufacturers of appliances to meet state and federal standards for energy and water efficiency. Performance of appliances must be certified through the CEC to demonstrate compliance with standards. New appliances regulated under Title 20 include refrigerators, refrigerator-freezers, and freezers; room air conditioners and room air-conditioning heat pumps; central air conditioners; spot air conditioners; vented gas space heaters; gas pool heaters; plumbing fittings and plumbing fixtures; fluorescent lamp ballasts; lamps; emergency lighting; traffic signal modules; dishwashers; clothes washers and dryers; cooking products; electric motors; low voltage dry-type distribution transformers; power supplies; televisions and consumer audio and video equipment; and battery charger systems. Title 20 presents protocols for testing for each type of appliance covered under the regulations, and appliances must meet the standards for energy performance, energy design, water performance, and water design. Title 20 contains three types of standards for appliances: federal and state standards for federally regulated appliances, state standards for federally regulated appliances, and state standards for non-federally regulated appliances.

AB 1109. Enacted in 2007, AB 1109 required the CEC to adopt minimum energy efficiency standards for general purpose lighting, to reduce electricity consumption 50% for indoor residential lighting and 25% for indoor commercial lighting.

Renewable Energy and Energy Procurement

SB 1078. SB 1078 (2002) established the Renewables Portfolio Standard (RPS) program, which requires an annual increase in renewable generation by the utilities equivalent to at least 1% of sales, with an aggregate goal of 20% by 2017. This goal was subsequently accelerated, requiring utilities to obtain 20% of their power from renewable sources by 2010.

SB 1368. SB 1368 (2006) requires the CEC to develop and adopt regulations for GHG emission performance standards for the long-term procurement of electricity by local publicly owned utilities. These standards must be consistent with the standards adopted by the California Public

Utilities Commission. This effort will help protect energy customers from financial risks associated with investments in carbon-intensive generation by allowing new capital investments in power plants whose GHG emissions are as low as or lower than new combined-cycle natural gas plants by requiring imported electricity to meet GHG performance standards in California and by requiring that the standards be developed and adopted in a public process.

SB X1 2. SB X1 2 (2011) expanded the RPS by establishing that 20% of the total electricity sold to retail customers in California per year by December 31, 2013, and 33% by December 31, 2020, and in subsequent years be secured from qualifying renewable energy sources. Under the bill, a renewable electrical generation facility is one that uses biomass, solar thermal, photovoltaic, wind, geothermal, fuel cells using renewable fuels, small hydroelectric generation of 30 megawatts or less, digester gas, municipal solid waste conversion, landfill gas, ocean wave, ocean thermal, or tidal current, and that meets other specified requirements with respect to its location. In addition to the retail sellers previously covered by the RPS, SB X1 2 added local, publicly owned electric utilities to the RPS.

SB 350. SB 350 (2015) further expanded the RPS by establishing that 50% of the total electricity sold to retail customers in California per year by December 31, 2030, be secured from qualifying renewable energy sources. In addition, SB 350 includes the goal to double the energy efficiency savings in electricity and natural gas final end uses (such as heating, cooling, lighting, or class of energy uses on which an energy efficiency program is focused) of retail customers through energy conservation and efficiency. The bill also requires the California Public Utilities Commission, in consultation with the CEC, to establish efficiency targets for electrical and gas corporations consistent with this goal.

SB 100. SB 100 (2018) increased the standards set forth in SB 350 establishing that 44% of the total electricity sold to retail customers in California per year by December 31, 2024, 52% by December 31, 2027, and 60% by December 31, 2030 be secured from qualifying renewable energy sources. SB 100 states that it is the policy of the state that eligible renewable energy resources and zero-carbon resources supply 100% of the retail sales of electricity to California. This bill requires that the achievement of 100% zero-carbon electricity resources do not increase the carbon emissions elsewhere in the western grid and that the achievement not be achieved through resource shuffling.

Mobile Sources

AB 1493. In response to the transportation sector accounting for more than half of California's CO₂ emissions, AB 1493 (2002) required CARB to set GHG emission standards for passenger vehicles, light-duty trucks, and other vehicles primarily used for noncommercial personal transportation. The bill specifically required that CARB set GHG emission standards for motor

vehicles manufactured in 2009 and all subsequent model years. CARB adopted the standards in September 2004. The near-term (2009–2012) standards were estimated to result in a reduction of about 22% in GHG emissions compared to the emissions from the 2002 fleet, while the mid-term (2013–2016) standards were estimated to result in a reduction of about 30%.

EO S-1-07. Issued on January 18, 2007, EO S-1-07 sets a declining Low Carbon Fuel Standard for GHG emissions measured in CO₂e grams per unit of fuel energy sold in California. The target of the Low Carbon Fuel Standard is to reduce the carbon intensity of California passenger vehicle fuels by at least 10% by 2020. The carbon intensity measures the amount of GHG emissions in the lifecycle of a fuel, including extraction/feedstock production, processing, transportation, and final consumption, per unit of energy delivered. CARB adopted the implementing regulation in April 2009. The regulation is expected to increase the production of biofuels, including those from alternative sources, such as algae, wood, and agricultural waste.

SB 375. SB 375 (2008) addresses GHG emissions associated with the transportation sector through regional transportation and sustainability plans. SB 375 required CARB to adopt regional GHG reduction targets for the automobile and light-truck sector for 2020 and 2035. Regional metropolitan planning organizations are then responsible for preparing a Sustainable Communities Strategy (SCS) within their Regional Transportation Plan (RTP). The goal of the SCS is to establish a forecasted development pattern for the region that, after considering transportation measures and policies, will achieve, if feasible, the GHG reduction targets. If a SCS is unable to achieve the GHG reduction target, a metropolitan planning organization must prepare an Alternative Planning Strategy demonstrating how the GHG reduction target would be achieved through alternative development patterns, infrastructure, or additional transportation measures or policies.

Pursuant to Government Code, Section 65080(b)(2)(K), an SCS does not (i) regulate the use of land; (ii) supersede the land use authority of cities and counties; or (iii) require that a city's or county's land use policies and regulations, including those in a general plan, be consistent with it. Nonetheless, SB 375 makes regional and local planning agencies responsible for developing those strategies as part of the federally required metropolitan transportation planning process and the state-mandated housing element process.

In 2010, CARB adopted the SB 375 targets for the regional metropolitan planning organizations. The targets for the San Diego Association of Governments (SANDAG) are a 7% reduction in emissions per capita by 2020 and a 13% reduction by 2035.

SANDAG completed and adopted its 2050 RTP/SCS in October 2011 (SANDAG 2011). In November 2011, CARB, by resolution, accepted SANDAG's GHG emissions quantification

analysis and determination that, if implemented, the SCS would achieve CARB's 2020 and 2035 GHG emissions reduction targets for the region.

After SANDAG's 2050 RTP/SCS was adopted, a lawsuit was filed by the Cleveland National Forest Foundation and others. In July 2017, the California Supreme Court held that SANDAG's EIR did not have to use EO S-3-05's 2050 goal of an 80% reduction in GHG emissions from 1990 levels as a threshold because the EIR sufficiently informed the public of the potential impacts.

Although the EIR for SANDAG's 2050 RTP/SCS was pending before the California Supreme Court, in 2015, SANDAG adopted the next iteration of its RTP/SCS in accordance with statutorily mandated timelines, and no subsequent litigation challenge was filed. More specifically, in October 2015, SANDAG adopted San Diego Forward: The Regional Plan. Like the 2050 RTP/SCS, this planning document meets CARB's 2020 and 2035 reduction targets for the region (SANDAG 2015). In December 2015, CARB, by resolution, accepted SANDAG's GHG emissions quantification analysis and determination that, if implemented, the SCS would achieve CARB's 2020 and 2035 GHG emissions reduction targets for the region.

Advanced Clean Cars Program. In January 2012, CARB approved the Advanced Clean Cars program, a new emissions-control program for model years 2015 through 2025. The program includes elements to reduce smog-forming pollution, reduce GHG emissions, promote clean cars, and provide the fuels for clean cars (CARB 2011). CARB's GHG standards for model year 2017 to 2025 vehicles are estimated to reduce GHG emissions by 34% in 2025. The Zero Emissions Vehicle (ZEV) program acts as the focused advanced technology of the Advanced Clean Cars program by requiring manufacturers to produce increasing numbers of ZEVs and plug-in hybrid electric vehicles (EVs) in the 2018 to 2025 model years. The Clean Fuels Outlet regulation relatedly ensures that fuels, such as electricity and hydrogen, are available to meet the fueling needs of the new advanced technology vehicles as they come to the market.

~~President Trump and the EPA have stated their intent to halt various federal regulatory activities to reduce GHG emissions. California and other states have stated their intent to challenge federal actions that would delay or eliminate GHG reduction measures and have committed to cooperating with other countries to implement global climate change initiatives. The timing and consequences of these types of federal decisions and potential responses from California and other states are speculative at this time.²~~

In August 2019, the EPA and NHTSA jointly published a notice of proposed rulemaking for Part One of the Safer Affordable Fuel-Efficient Vehicle Rule (SAFE Rule). The SAFE Rule proposed new and amended CO₂, Corporate Average Fuel Economy (CAFE), and GHG emissions standards for passenger cars and light trucks. Further, Part One of this rule proposed to withdraw the State of California's waiver, afforded under the Clean Air Act (CAA) to set GHG and ZEV standards

separate from the federal government. Part One of the SAFE Rule became effective in November 2019. CARB has provided adjustment factors for pollutants, including NO₂, PM₁₀, and PM_{2.5}, and CO, from light-duty vehicle exhaust to account for Part One of the SAFE Rule.

However, corresponding adjustment factors for GHG emissions are not available at this time. In March 2020, EPA and NHTSA announced Part Two of the SAFE Rule, which would set amended fuel economy and CO₂ standards for passenger cars and light trucks for model years 2021–2026. Part Two would become effective 60 days after publication in the Federal Register. The impact of Parts One and Two of the SAFE Rule on GHG emissions factors in California has not been quantified by CARB in the Emissions Factor model (EMFAC) or related modeling tools. These modeling tools would need to be amended, or corresponding adjustment factors published, to quantitatively assess the impact on GHG emissions. Therefore, the quantitative methodology used to project GHG emissions for the Proposed Project does not include the impact of the SAFE Rule. At the time of this writing, the methodology represents current guidance and best available data from CARB.

On January 20, 2021, the Biden administration issued an Executive Order 13990 for the EPA to review the SAFE Rule and consider suspending, revising, or rescinding the law if it conflicts with Section 1 of the executive order. The EPA proposed in response that it would grant California permission to set more stringent climate requirements for vehicles. Furthermore, U.S. Secretary of Transportation Pete Buttigieg followed suit and committed to withdrawing the Transportation Department’s part of the SAFE Rule.

EO B-16-12. EO B-16-12 (2012) directs state entities under the governor’s direction and control to support and facilitate development and distribution ZEVs. This EO also sets a long-term target of reaching 1.5 million ZEVs on California’s roadways by 2025. On a statewide basis, EO B-16-12 also establishes a GHG emissions reduction target from the transportation sector equaling 80% less emissions than 1990 levels by 2050. In furtherance of this EO, the governor convened an Interagency Working Group on ZEVs that has published multiple reports regarding the progress made on the penetration of ZEVs in the statewide vehicle fleet.

AB 1236. AB 1236 (2015) as enacted in California’s Planning and Zoning Law, requires local land use jurisdictions to approve applications for the installation of EV charging stations, as defined, through the issuance of specified permits unless there is substantial evidence in the record that the proposed installation would have a specific, adverse impact upon the public health or safety, and there is no feasible method to satisfactorily mitigate or avoid the specific, adverse impact. In August 2016, the County of San Diego (County) Board of Supervisors adopted Ordinance No. 10437 (N.S.), adding a section to its County Code related to the expedited processing of electric-vehicle charging station permits consistent with AB 1236.

SB 350. In 2015, SB 350, the Clean Energy and Pollution Reduction Act, was enacted into law. As one of its elements, SB 350 establishes a statewide policy for widespread electrification of the transportation sector, recognizing that such electrification is required for achievement of the state's 2030 and 2050 reduction targets (see Public Utilities Code Section 740.12).

EO B-48-18. EO B-48-18 (2018) launches an 8-year initiative to accelerate the sale of EVs through a mix of rebate programs and infrastructure improvements. The order also sets a new EV target of five million EVs in California by 2030. EO B-48-18 includes funding for multiple state agencies including the California Energy Commission to increase EV charging infrastructure and CARB to provide rebates for the purchase of new EVs and purchase incentives for low-income customers.

EO N-79-20. On September 23, 2020, California Governor Gavin Newsom signed Executive Order N-79-20 which required the California Air Resources Board to develop regulations to mandate that 100% of in-state sales of new passenger cars and trucks are zero-emission by 2035 – a target which would achieve more than a 35% reduction in greenhouse gas emissions and an 80% improvement in oxides of nitrogen emissions from cars statewide.

Solid Waste

AB 939 and AB 341. In 1989, AB 939, known as the Integrated Waste Management Act (Public Resources Code Sections 40000 et seq.), was passed because of the increase in waste stream and the decrease in landfill capacity. The statute established the California Integrated Waste Management Board, which oversees a disposal reporting system. AB 939 mandated a reduction of waste being disposed where jurisdictions were required to meet diversion goals of all solid waste through source reduction, recycling, and composting activities of 25% by 1995 and 50% by 2000.

AB 341 (2011) amended the California Integrated Waste Management Act of 1989 to include a provision declaring that it is the policy goal of the state that not less than 75% of solid waste generated be source-reduced, recycled, or composted by 2020, and annually thereafter. In addition, AB 341 required the California Department of Resources Recycling and Recovery (CalRecycle) to develop strategies to achieve the state's policy goal. CalRecycle has conducted multiple workshops and published documents that identify priority strategies that CalRecycle believes would assist the state in reaching the 75% goal by 2020 (CalRecycle 2015).

Water

EO B-29-15. In response to the ongoing drought in California, EO B-29-15 (April 2015) set a goal of achieving a statewide reduction in potable urban water usage of 25% relative to water use in 2013. The term of the EO extended through February 28, 2016, although many of the directives have since become permanent water-efficiency standards and requirements. The EO includes specific directives that set strict limits on water usage in the state. In response to EO B-29-15, the

California Department of Water Resources modified and adopted a revised version of the Model Water Efficient Landscape Ordinance that, among other changes, significantly increases the requirements for landscape water use efficiency and broadens its applicability to include new development projects with smaller landscape areas.

Other State Regulations and Goals

SB 97. SB 97 (2007) directed the Governor’s Office of Planning and Research to develop guidelines under CEQA for the mitigation of GHG emissions. In 2008, the Governor’s Office of Planning and Research issued a technical advisory as interim guidance regarding the analysis of GHG emissions in CEQA documents. The advisory indicated that the lead agency should identify and estimate a project’s GHG emissions, including those associated with vehicular traffic, energy consumption, water usage, and construction activities. The advisory further recommended that the lead agency determine significance of the impacts and impose all mitigation measures necessary to reduce GHG emissions to a level that is less than significant (OPR 2008).

Subsequent to the release of the Governor’s Office of Planning and Research’s advisory and its development of proposed CEQA Guidelines provisions, the California Natural Resources Agency adopted CEQA Guidelines amendments in December 2009, which became effective in March 2010. With respect to GHG emissions, the amended CEQA Guidelines state that lead agencies should “make a good faith effort, to the extent possible on scientific and factual data, to describe, calculate or estimate” GHG emissions. The CEQA Guidelines note that lead agencies may identify emissions by either selecting a “model or methodology” to quantify the emissions or by relying on “qualitative analysis or other performance based standards” (14 CCR 15064.4[a]). The amended CEQA Guidelines also state that lead agencies should consider the following when assessing the significance of impacts from GHG emissions on the environment: the extent a project may increase or reduce GHG emissions as compared to the existing environmental setting; whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project; and the extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions (14 CCR 15064.4[b]).

EO S-13-08. EO S-13-08 (November 2008) is intended to hasten California’s response to the impacts of global climate change, particularly sea-level rise. Therefore, the EO directs state agencies to take specified actions to assess and plan for such impacts. The final 2009 California Climate Adaptation Strategy report was issued in December 2009 (CNRA 2009a), and an update, Safeguarding California: Reducing Climate Risk, followed in July 2014 (CNRA 2014). To assess the state’s vulnerability, the report summarizes key climate change impacts to the state for the following areas: Agriculture, Biodiversity and Habitat, Emergency Management, Energy, Forestry, Ocean and Coastal Ecosystems and Resources, Public Health, Transportation, and Water.

Issuance of the Safeguarding California: Implementation Action Plans followed in March 2016 (CNRA 2016). In January 2018, the CNRA released the Safeguarding California Plan: 2018 Update, which communicates current and needed actions that state government should take to build climate change resiliency (CNRA 2018).

Biological Diversity v. California Department of Fish and Wildlife. In its decision in *Center for Biological Diversity v. California Dep't of Fish and Wildlife (Newhall)* 62 Cal.4th 204 (2015), the California Supreme Court set forth several options that lead agencies may consider for evaluating the cumulative significance of a project's GHG emissions:

1. A calculation of emissions reductions compared to a "business as usual" (BAU) scenario based upon the emissions reductions in CARB's Scoping Plan, including examination of the data to determine what level of reduction from BAU a new land use development at the proposed location must contribute in order to comply with statewide goals.
2. A lead agency might assess consistency with AB 32's goals by looking to compliance with regulatory programs designed to reduce GHG emissions from particular activities.
3. Use of geographically specific GHG emission reduction plans to provide a basis for tiering and streamlining of project-level CEQA analysis.
4. A lead agency may rely on existing numerical thresholds of significance for GHG emissions, though use of such thresholds is not required.

There is no applicable existing numerical threshold of significance for GHG emissions, and the *Newhall* decision specifically found that use of a numerical threshold is not required.

Local

San Diego Air Pollution Control District

The San Diego Air Pollution Control District (SDAPCD) does not have established GHG rules, regulations, or policies.

County of San Diego

Climate Action Plan

The County developed a Climate Action Plan (CAP) as a comprehensive strategy to reduce GHG emissions in the unincorporated communities of San Diego County. A draft CAP was released on August 10, 2017, for public review. The plan includes six chapters: (1) Introduction; (2) Greenhouse Gas Emissions Inventory, Projections, and Reductions Targets; (3) Greenhouse Gas Reduction Strategies and Measures; (4) Climate Change Vulnerability, Resiliency, and Adaptation; (5) Implementation and Monitoring; and (6) Public Outreach and Engagement.

Concurrent with the release of the draft CAP, the County published implementation tools for the County to use when conducting a CEQA analysis. This includes a general plan land use conformity determination and CAP Consistency review checklist. In January 2018, the Planning Commission recommended adoption of the final CAP to the County Board of Supervisors. On February 14, 2018, the County Board of Supervisors adopted the CAP (County of San Diego 2018).

A lawsuit was then filed challenging the CAP and the County's related approvals (San Diego Superior Court Case No. 37-2018-00014081-CU-TT-CTL). On January 16, 2019, the County of San Diego Superior Court entered judgment in the suit (San Diego Superior Court Case No. 37-2018-00014081-CU-TT-CTL). The judgment, among other things, issued a writ of mandate directing the County to set aside the approval of the CAP and the Final Supplemental Environmental Impact Report to the 2011 General Plan Update Program Environmental Impact Report and declared that the CAP and the "certification of the Final SEIR to the 2011 General Plan Update Program EIR are legally inadequate and may not be used to provide the basis for CEQA review of GHG impacts of development proposals in the unincorporated County."

The County subsequently appealed the Superior Court's judgment to the Fourth Appellate District, Division One (Case No. D075478). On June 12, 2020, the appellate court affirmed the trial court's order with respect to the CAP and the Final SEIR. Accordingly, the County remains enjoined from using the CAP as the basis for CEQA review of GHG impacts of development proposals in the County. The County Board of Supervisors decertified the Final SEIR and rescinded approval of the CAP. However, direction was given to amend the EIR to address the court's findings and continue the GHG reduction measures that were not challenged in court.

General Plan

The County's General Plan (County of San Diego 2011) includes smart growth and land use planning principles designed to reduce vehicle miles traveled (VMT) and result in a reduction in GHG emissions. Climate change and GHG reduction policies are addressed in plans and programs in multiple elements of the General Plan. In 2018, the County implemented publicly and privately initiated General Plan Amendments which addressed the following areas: Local Coastal Program Update, Active Transportation Plan, Lake Jennings Marketplace, Harmony Grove Village South, Valiano, Otay 250 Sunroad East Otay Mesa Business Park, and Newland Sierra (County of San Diego 2020).

The strategies for reduction of GHG emissions in the General Plan are as follows (County of San Diego 2011):

- **Strategy A-1:** Reduce vehicle trips generated, gasoline/energy consumption, and GHG emissions.

- **Strategy A-2:** Reduce non-renewable electrical and natural gas energy consumption and generation (energy efficiency).
- **Strategy A-3:** Increase generation and use of renewable energy sources.
- **Strategy A-4:** Reduce water consumption.
- **Strategy A-5:** Reduce and maximize reuse of solid wastes.
- **Strategy A-6:** Promote carbon dioxide consuming landscapes.
- **Strategy A-7:** Maximize preservation of open spaces, natural areas, and agricultural lands.

The General Plan also includes climate adaptation strategies to deal with potential adverse effects of climate change. The climate adaptation strategies include the following (County of San Diego 2011):

- **Strategy B-1:** Reduce risk from wildfire, flooding, and other hazards resulting from climate change.
- **Strategy B-2:** Conserve and improve water supply due to shortages from climate change.
- **Strategy B-3:** Promote agricultural lands for local food production.
- **Strategy B-4:** Provide education and leadership.

The County General Plan's Conservation and Open Space Element also includes goals and policies that are designed to reduce GHGs emissions by enhancing the efficiency of energy use in buildings and infrastructure, and promoting the use of renewable energy sources and conservation, and other methods of efficiency. The pertinent goals are identified below.

- **Goal COS-14, Sustainable Land Development.** Land use development techniques and patterns that reduce emissions of criteria pollutants and GHGs through minimized transportation and energy demands, while protecting public health and contributing to a more sustainable environment.
- **Goal COS-15, Sustainable Architecture and Buildings.** Building design and construction techniques that reduce emissions of criteria pollutants and GHGs, while protecting public health and contributing to a more sustainable environment.
- **Goal COS-16, Sustainable Mobility.** Transportation and mobility systems that contribute to environmental and human sustainability and minimize GHG and other air pollutant emissions.
- **Goal COS-17, Sustainable Solid Waste Management.** Perform solid waste management in a manner that protects natural resources from pollutants while providing sufficient, long term capacity through vigorous reduction, reuse, recycling, and composting programs.

- **Goal COS-18, Sustainable Energy.** Energy systems that reduce consumption of non-renewable resources and reduce GHG and other air pollutant emissions while minimizing impacts to natural resources and communities.
- **Goal COS-19, Sustainable Water Supply.** Conservation of limited water supply supporting all uses including urban, rural, commercial, industrial, and agricultural uses.
- **Goal COS-20, Governance and Administration.** Reduction of local GHG emissions contributing to climate change that meet or exceed requirements of the Global Warming Solutions Act of 2006.

The Proposed Project's consistency with the General Plan is evaluated below in Section 3.1.3.3, and in Section 3.1.4 Land Use and Planning, of this EIR.

Renewable Energy Plan

The County's Renewable Energy Plan researches and develops renewable energy options in the County. The planning effort covers the residential, commercial, and industrial sectors of the County, with a particular focus on unincorporated areas, and presents a comprehensive approach to renewable energy and energy efficiency (County of San Diego 2017a).

Strategic Plan to Reduce Waste

The County Strategic Plan to Reduce Waste outlines near, mid-, and long-term programs and policies to increase the County's solid waste diversion rate to meet state targets and support other County initiatives. In April 2017, the County adopted a diversion goal of 75% by 2025 (County of San Diego 2017b).

3.1.3.3 Analysis of Proposed Project Effects and Determination as to Significance

The County's Guidelines for Determining Significance are generally intended to address the questions posed in Appendix G of the CEQA Guidelines. In 2018, the CEQA Guidelines were updated and several of the questions listed in Appendix G were revised, deleted, or modified. The County's Guidelines for Determining Significance have yet to be updated to address these amendments (County of San Diego 2013). Accordingly, this EIR analyzes the impacts from the Proposed Project using questions posed in Appendix G.

The Proposed Project's potential impacts on GHGs will be assessed using the GHG thresholds set forth in Appendix G, Environmental Checklist Form:

1. Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?
2. Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs?

The Appendix G thresholds for GHGs do not prescribe specific methodologies for performing an assessment, do not establish specific thresholds of significance, and do not mandate specific mitigation measures. Rather, the CEQA Guidelines emphasize the lead agency's discretion to determine the appropriate methodologies and thresholds of significance consistent with the manner in which other impact areas are handled in CEQA (CNRA 2009b). Additional guidance regarding assessment of GHGs is discussed below.

The Proposed Project is a solar energy generation and storage facility, which includes ~~a switchyard~~ the Switchyard Facilities that would be transferred to San Diego Gas & Electric (SDG&E) after construction. For the purposes of this analysis, the ~~switchyard~~ Switchyard Facilities (as described in Section 1.2.1 of Chapter 1, Project Description) ~~is~~ are a component of the Proposed Project and ~~has~~ have been analyzed as part of the whole of the action. However, the EIR highlights the specific analysis of the ~~switchyard~~ Switchyard Facilities under each threshold of significance in the event that responsible agencies have CEQA obligations related to the ~~switchyard~~ Switchyard Facilities.

CEQA Guidelines

With respect to GHG emissions, the CEQA Guidelines Section 15064.4(a) states that lead agencies “shall make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate” GHG emissions resulting from a project. The CEQA Guidelines note that an agency has the discretion to either quantify a project's greenhouse gas emissions or rely on a “qualitative analysis or other performance based standards” (14 CCR 15064.4[b]). A lead agency may use a “model or methodology” to estimate greenhouse gas emissions and has the discretion to select the model or methodology it considers “most appropriate to enable decision makers to intelligently take into account the project's incremental contribution to climate change” (14 CCR 15064.4[c]). Section 15064.4(b) provides that the lead agency should consider the following when determining the significance of impacts from GHG emissions on the environment (14 CCR 15064.4[b]):

1. The extent a project may increase or reduce GHG emissions as compared to the existing environmental setting.
2. Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.

3. The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions.

In addition, Section 15064.7(c) of the CEQA Guidelines specifies that “[w]hen adopting or using thresholds of significance, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies, or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence” (14 CCR 15064.7[c]).

OPR Guidance

The OPR’s Technical Advisory titled CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act (CEQA) Review states that “public agencies are encouraged but not required to adopt thresholds of significance for environmental impacts. Even in the absence of clearly defined thresholds for GHG emissions, the law requires that such emissions from CEQA projects must be disclosed and mitigated to the extent feasible whenever the lead agency determines that the project contributes to a significant, cumulative climate change impact” (OPR 2008). Furthermore, the advisory document indicates that “in the absence of regulatory standards for GHG emissions or other scientific data to clearly define what constitutes a ‘significant impact,’ individual lead agencies may undertake a project-by-project analysis, consistent with available guidance and current CEQA practice” (OPR 2008).

Cumulative Nature of Climate Change

Global climate change is a cumulative impact; a project participates in this potential impact through its incremental contribution combined with the cumulative increase of all other sources of GHGs. There are currently no established thresholds for assessing whether the GHG emissions of a project in the San Diego Air Basin, such as the Proposed Project, would be considered a cumulatively considerable contribution to global climate change; however, all reasonable efforts should be made to minimize a project’s contribution to global climate change.

Although the Proposed Project would result in emissions of GHGs during construction and operation, no guidance exists to indicate what level of GHG emissions would be considered substantial enough to result in a significant adverse impact on global climate. However, it is generally believed that an individual project is of insufficient magnitude by itself to influence climate change or result in a substantial contribution to the global GHG inventory as scientific uncertainty regarding the significance of a project’s individual and cumulative effects on global climate change remains.

Thus, GHG impacts are recognized as exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective (CAPCOA 2008). This approach is consistent with that recommended by the CNRA, which noted in its Public Notice for the proposed CEQA amendments (pursuant to SB 97) that the evidence before it indicates that in most cases, the impact of GHG emissions should be considered in the context of a cumulative impact, rather than a project-level impact (CNRA 2009b). Similarly, the Final Statement of Reasons for Regulatory Action on the CEQA Amendments confirm that an EIR or other environmental document must analyze the incremental contribution of a project to GHG levels and determine whether those emissions are cumulatively considerable (CNRA 2009b). Accordingly, further discussion of the Proposed Project's GHG emissions and their impact on global climate are addressed in Section 3.1.3.5.

In regard to evaluating the Proposed Project's significance with respect to CEQA Guidelines checklist #1, the Proposed Project's emissions were evaluated against the existing site conditions. The Proposed Project's net GHG emissions and impact were further assessed to include the benefit of producing zero GHG emission energy and the avoided GHG emissions associated with its use within the regional power grid.

To address the CEQA Guidelines checklist question #2, whether the Proposed Project is consistent with plans, policies, and regulations adopted for the purpose of reducing the emissions of GHGs, the Proposed Project was evaluated against AB 32, SANDAG's RTP/SCS, and EO B-55-18.

3.1.3.3.1 *Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?*

Project Emissions Construction

The Proposed Project would include installation of 300,000 PV modules, an underground collection system, on-site collector substation, ~~switchyard~~ Switchyard Facilities, an up to a 90 MW AC battery energy system, vehicle access, fencing and landscaping. Approximately ~~643~~ 623 acres of the Project site would be graded.

For purposes of estimating Proposed Project emissions, and based on information provided by the applicant, it is assumed that construction of the Proposed Project would commence in December 2020³ and would last approximately 13 months. The analysis contained herein is based on the following subset area schedule assumptions (duration of phases is approximate). The majority of

³ The analysis assumes a construction start date of December 2020, which represents the earliest date construction would initiate. Assuming the earliest start date for construction represents the worst-case scenario for criteria air pollutant emissions because equipment and vehicle emission factors for later years would be slightly less due to more stringent standards for in-use off-road equipment and heavy-duty trucks, as well as fleet turnover replacing older equipment and vehicles in later years.

the phases listed below would occur concurrently and would not occur sequentially in isolation. Detailed construction equipment modeling assumptions are provided in Appendix P.

- Site Mobilization and Water Main Realignment: 2 weeks
- Demolition of dairy and ranching structures: 1 month
- Site Prep, Grading, and Stormwater Protections: 3 months
- Fence Installation: 3 months
- Landscaping Installation: 4 months
- Pile Driving: 2 months
- Tracker and Module Installation: 6 months
- DC Electrical: 6 months
- Underground Medium AC Voltage Electrical: 5 months
- Inverter Installation: 2 months
- Battery Energy Storage System Installation: 2 months
- Commissioning: 1 month

Assuming the earliest start date for operation represents the worst-case scenario for criteria air pollutant emissions because equipment and vehicle emission factors for later years would be slightly less due to more stringent standards for in-use off-road equipment and heavy-duty trucks, as well as fleet turnover replacing older equipment and vehicles in later years.

Stationary Sources

The Proposed Project would include a 1.5 MW diesel emergency generator at the on-site collector substation. The generator was assumed to operate for testing and maintenance approximately 30 minutes each month for a total of up to 52 hours per year, in accordance with SDAPCD Rule 69.4.1. The CalEEMod default emission factors for emergency generators were used to estimate emissions from this source. The estimated emissions from the emergency generator engines are shown in Table 3.1.3-3, Estimated Annual Operational Greenhouse Gas Emissions.

Water

Water will be used for panel washing during operation several times per year. It was estimated that up to 10 acre-feet of water would be needed for panel washing. Early in the Proposed Project planning process, the Applicant considered the potential of using water from the Jacumba Community Services District as back up to onsite well water; however, subsequently it was

determined that only onsite well water would be used. The water would be sourced from on-site groundwater wells with backup water coming from the Jacumba Community Services District. However, this the greenhouse gas emissions analysis conservatively assumed all water would be provided by the Jacumba Community Services District, which would be delivered via water truck. Although the Jacumba Community Services District will not be relied upon for backup water, the greenhouse gas emissions analysis was not revised because it is more conservative as trucking water to the site would cause the Proposed Project to produce more greenhouse gas emissions than producing water from onsite wells. CalEEMod default emission factors were assumed.

Emissions Estimates

The estimated total GHG emissions during construction of would be approximately ~~5,764~~ 5,776 MT CO_{2e} during construction (as shown in Table 3.1.3-4, Estimated Annual Construction Greenhouse Gas Emissions). Estimated Proposed-Project-generated construction emissions amortized over the Proposed Project life of 35 years would be approximately 165 MT CO_{2e} per year. The estimated total GHG emissions during decommissioning would be approximately 2,405 MT CO_{2e} (as shown in Table 3.1.3-5, Estimated Annual Decommissioning Greenhouse Gas Emissions – Proposed Project). Estimated Proposed-Project-generated decommissioning emissions amortized over the Proposed Project life of 35 years would be approximately 69 MT CO_{2e} per year. The estimated total one-time loss of sequestered carbon from land use conversion for the Proposed Project would be 8,503 MT CO₂, or 243 MT CO₂ per year amortized over 35 years (as shown in Table 3.1.3-6, Vegetation Removal – Estimated Loss of Sequestered Carbon). As shown in Table 3.1.3-6, Proposed Project GHG emissions generated from operational activities are estimated to be approximately 281 MT CO_{2e} per year in 2022. Total operational emissions combined with amortized construction, decommissioning, and vegetation removal GHG emissions would be 758 MT CO_{2e} per year, assuming a 35-year Proposed Project life.

Switchyard Facilities

The analysis contained within this section evaluates the GHG emissions from the ~~switchyard~~ Switchyard Facilities only. These emissions were included in the overall Proposed Project's GHG emissions previously discussed.

Construction

The ~~switchyard~~ Switchyard Facilities includes two primary components:

- Construction of a new 138 kV electric Switchyard Facilities
- Construction of two 138 kV, 550-foot-long (1,100 feet total) 80-foot-high overhead transmission lines (gen-tie) would loop the Proposed Project to an existing SDG&E 138 kV

transmission line (originating at East County Substation) that is located adjacent to the Project site.

The ~~switchyard~~ Switchyard Facilities would be located adjacent to the Proposed Project's collector substation. The ~~switchyard~~ Switchyard Facilities would be connected to both the collector substation and the existing SDG&E 138 KV transmission line via a short overhead transmission line, approximately 224 feet in length. The size of the ~~switchyard~~ Switchyard Facilities is approximately 139,392 square feet. The ~~switchyard~~ Switchyard Facilities may include circuit breakers, overhead electrical bus work, switches and controls, and a control building, and the entire ~~switchyard~~ Switchyard Facilities area will be enclosed inside a security fence. The ~~switchyard~~ Switchyard Facilities includes a 30-foot-wide, asphalt paved access driveway for ~~switchyard~~ Switchyard Facilities operations that will provide an interconnection to Carrizo Gorge Road.

For purposes of estimating ~~switchyard~~ Switchyard Facilities emissions, and based on information provided by the applicant, it is assumed that construction of the Switchyard Facilities would commence in March 2021⁴ and would last approximately 10 months. The analysis contained herein is based on the following subset area schedule assumptions (duration of phases is approximate). The majority of the phases listed below would occur concurrently and would not occur sequentially in isolation. Detailed construction equipment modeling assumptions are provided in Appendix B of Appendix P, CalEEMod Outputs.

- Site Preparation 1 – Switchyard Facilities: 1 month
- Conductor Installation 1: 1 month
- Site Preparation 2 – Switchyard Facilities: 1 month
- Trenching – Switchyard Facilities: 1 month
- Paving – Switchyard Facilities: 2 weeks
- Site Preparation – Transmission Line: 2 weeks
- Operate Air Tools: 4 months
- Structure Installation: 1.5 months
- Conductor Installation 2: 1 month
- Erect Structures: 1 month

⁴ The analysis assumes a construction start date of March 2021, which represents the earliest date construction would initiate. Assuming the earliest start date for construction represents the worst-case scenario for criteria air pollutant emissions because equipment and vehicle emission factors for later years would be slightly less due to more stringent standards for in-use off-road equipment and heavy-duty trucks, as well as fleet turnover replacing older equipment and vehicles in later years.

Emissions from the construction phase of the ~~switchyard~~ Switchyard Facilities were estimated using CalEEMod. Construction scenario assumptions, including phasing, equipment mix, and vehicle trips, were based on information provided by the applicant, CalEEMod defaults, and best engineering judgement.

General construction equipment modeling assumptions are provided in Appendix P, Construction Workers, Vendor Trips, and Equipment Use per Day – ~~switchyard~~ Switchyard Facilities. Default values for equipment mix, horsepower, and load factor provided in CalEEMod were used for all construction equipment. For the analysis, it was generally assumed that heavy-duty construction equipment would be operating at the site 5 days per week. For the purposes of estimating emissions, it was assumed that worker trips and truck trips would be made to the site independently; however, it is likely that workers would drive trucks to and from the site for deliveries rather than driving in a separate vehicle. Therefore, the estimates provided in Appendix P are conservative. Detailed construction equipment modeling assumptions are provided in Appendix P.

The estimated number of workers, vendor trucks, and haul trucks were provided by the applicant. Changes to any standard default values or assumptions are reported in the CalEEMod output (see Appendix P). Based on data from similar projects in the general vicinity of the Project site, the worker mix was assumed to include 50% coming from San Diego and 50% from El Centro. As the Proposed Project's grading would be balanced on site, the haul truck trips are only assumed to be driven within the site. The water trucks are assumed to come from the Jacumba Community Services District and the vendor trucks delivering materials to the site come from the Port of San Diego. This is a conservative assumption as the water will exclusively primarily come from on-site groundwater wells and trucking water to the site would cause the Proposed Project to produce more greenhouse gas emissions than producing water from onsite wells.

Switchyard Facilities Construction Emissions Estimates

As shown in Table 3.1.3-7, Estimated Annual Construction Greenhouse Gas Emissions – Switchyard Facilities, the estimated total GHG emissions during construction of the ~~switchyard~~ Switchyard Facilities would be approximately 337 MT CO_{2e} during construction. Estimated ~~switchyard~~ Switchyard Facilities-generated construction emissions amortized over 35 years would be approximately 10 MT CO_{2e} per year.

Assuming the earliest start date for operation represents the worst-case scenario for criteria air pollutant emissions because equipment and vehicle emission factors for later years would be slightly less due to more stringent standards for in-use off-road equipment and heavy-duty trucks, as well as fleet turnover replacing older equipment and vehicles in later years.

Off-Road Equipment

The use of various pieces of off-road equipment is necessary for the different maintenance activities occurring for the ~~switchyard~~ Switchyard Facilities, transmission line tie-in, right-of-way repair, pole brushing, and repair or replacement of equipment. The different types of equipment and daily use estimates were provided by the applicant. The CalEEMod defaults were assumed for the off-road equipment horsepower, emission factors, and load factors.

Switchyard Facilities Operational Emissions Estimates

As shown in Table 3.1.3-8, Estimated Annual Operational Greenhouse Gas Emissions – Switchyard Facilities, ~~switchyard~~ Switchyard Facilities GHG emissions generated from operational activities are estimated to be approximately 20 MT CO₂e per year in 2022. Total operational emissions combined with amortized construction GHG emissions would be 30 MT CO₂e per year, assuming a 35-year Proposed Project life.

Analysis – Avoided GHG Emissions

The Proposed Project would provide a source of renewable energy to achieve the RPS of 60% by 2030 and 100% by 2045 consistent with the renewable energy targets in the Scoping Plan and required by SB 100 and EO B-55-18. The generation of renewable energy would offset GHG emissions generated by fossil-fuel power plants. As noted above, the Proposed Project would result in 758 MT CO₂e per year over the life of the Proposed Project. The Draft EIR disclosed that the Proposed Project is expected to produce an estimated 211,159 megawatt hours of electricity per year (MWh/yr) (NREL 2019). The estimated MWh/yr of the Proposed Project in the Draft EIR is based on the use of mono-facial PV modules that produce solar power from only one side of the module. Since public review of the Draft EIR, revisions to the Proposed Project include the use of bi-facial PV modules which produce solar power from both sides of the module. A bi-facial module generates electricity from direct sunlight on the top of the module and ambient light from the bottom of the module. The Proposed Project would also use modules with increased wattage (increased from 385 watts to approximately 540 watts per module). Due to these technological improvements in the PV modules, the estimated renewable electricity production of the Proposed Project has been increased to approximately 283,000 MWh/yr. These technological improvements also make it possible to maintain the Proposed Project's 90 MW AC nameplate capacity (power delivered to the grid) even though the MUP footprint has been reduced by 20 acres. An Energy Generation Memorandum (Appendix V to the Final EIR) provides further discussion regarding these technological improvements and the power capacity.

The default CalEEMod CO₂ emission factor for SDG&E was 720.49 pounds of CO₂ per megawatt-hour (pounds CO₂/MWh) from 2009 (CAPCOA 2017). The renewable content for SDG&E for

2009 was 10%. SDG&E reported that 44% of its power mix was renewable in 2017, which would result in 448.30 pounds CO₂/MWh (see Appendix B of Appendix P for more details). Assuming that SDG&E would meet the EO B-55-18 carbon neutrality target in 2045, a linear regression of the SDG&E GHG emission factor was calculated from 2017 to 2044. This would mean that the Proposed Project would avoid less GHG emissions over time. Assuming this, the Proposed Project would avoid a total of ~~423,254~~ 567,254 MT CO₂ from 2022 through 2044. It should be noted that the Proposed Project is expected to be operational through 2057 and thus it would not be avoiding GHG emissions from 2045 through 2057 assuming California meets its goal of becoming 100% carbon neutral by 2045. Table 3.1.3-9, Estimated Annual Operational and Avoided Greenhouse Gas Emissions, shows the total Proposed Project GHG emissions and avoided GHG emissions.

As noted above, including amortized construction emissions and carbon loss, the Proposed Project would emit ~~26,524~~ 26,533 MT CO₂ over a 35-year lifetime. Thus, after subtracting avoided GHG emissions from the Proposed Project's GHG emissions, the Proposed Project would avoid approximately ~~396,733~~ 540,721 MT CO₂e over its lifetime. Accordingly, the Proposed Project would avoid more GHG emissions than it would generate resulting in a **less than cumulatively considerable** contribution to significant cumulative climate change impacts.

Switchyard Facilities

The ~~switchyard~~ Switchyard Facilities is a vital component to the Proposed Project, and the Proposed Project could not operate without the ~~switchyard~~ Switchyard Facilities. Therefore, as discussed above, the emissions from the Proposed Project would result in a net avoidance of emissions. As the ~~switchyard~~ Switchyard Facilities comprises approximately 11% of the Proposed Project's construction and operational GHG emissions, it would also result in a net avoidance of GHG emissions after factoring in the Proposed Project's avoided GHG emissions, and would result in a **less than cumulatively considerable** contribution to significant cumulative climate change impacts.

3.1.3.3.2 *Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs?*

To address whether the Proposed Project is consistent with plans, policies, and regulations adopted for the purpose of reducing the emissions of GHGs, the Proposed Project was evaluated against AB 32, SANDAG's RTP/SCS, and EO B-55-18.

Consistency with CARB's Scoping Plan

As discussed in Section 3.1.3.2, Regulatory Setting, the Scoping Plan (approved by CARB in 2008 and updated in 2014 and 2017) provides a framework for actions to reduce California's GHG emissions and requires CARB and other state agencies to adopt regulations and other initiatives to

reduce GHGs. The Scoping Plan is not directly applicable to specific projects, nor is it intended to be used for project-level evaluations.⁵ Under the Scoping Plan, however, there are several state regulatory measures aimed at the identification and reduction of GHG emissions. CARB and other state agencies have adopted many of the measures identified in the Scoping Plan. Most of these measures focus on area source emissions (e.g., energy usage, high-GWP GHGs in consumer products) and changes to the vehicle fleet (i.e., hybrid, electric, and more fuel-efficient vehicles) and associated fuels (e.g., LCFS), among others.

The Scoping Plan recommends strategies for implementation at the statewide level to meet the goals of AB 32 and establishes an overall framework for the measures that will be adopted to reduce California's GHG emissions. Table 3.1.3-10, Proposed Project Consistency with Scoping Plan GHG Emission Reduction Strategies, highlights measures that have been, or will be, developed under the Scoping Plan and the Proposed Project's consistency with Scoping Plan measures. To the extent that these regulations are applicable to the Proposed Project, its inhabitants, or uses, the Proposed Project would comply with all regulations adopted in furtherance of the Scoping Plan to the extent required by law.

Based on the analysis in Table 3.1.3-10, the Proposed Project would be consistent with the applicable strategies and measures in the Scoping Plan.

The Proposed Project would not impede and may help the attainment of the GHG reduction goals for 2030 or 2050 identified in EO S-3-05, B-55-18, and SB 32. EO S-3-05 establishes the following goals: GHG emissions should be reduced to 2000 levels by 2010, to 1990 levels by 2020, and to 80% below 1990 levels by 2050. SB 32 establishes for a statewide GHG emissions reduction target whereby CARB, in adopting rules and regulations to achieve the maximum technologically feasible and cost-effective GHG emissions reductions, shall ensure that statewide GHG emissions are reduced to at least 40% below 1990 levels by December 31, 2030. While there are no established protocols or thresholds of significance for that future year analysis, CARB forecasts that compliance with the current Scoping Plan puts the state on a trajectory of meeting these long-term GHG goals, although the specific path to compliance is unknown (CARB 2014). EO B-55-18 established the goal to achieve carbon neutrality by 2045.

To begin, CARB has expressed optimism with regard to both the 2030 and 2050 goals. It states in the First Update to the Climate Change Scoping Plan that "California is on track to meet the near-term 2020 GHG emissions limit and is well positioned to maintain and continue reductions beyond 2020 as required by AB 32" (CARB 2014). With regard to the 2050 target for reducing GHG

⁵ The Final Statement of Reasons for the amendments to the CEQA Guidelines reiterates the statement in the Initial Statement of Reasons that "[t]he Scoping Plan may not be appropriate for use in determining the significance of individual projects because it is conceptual at this stage and relies on the future development of regulations to implement the strategies identified in the Scoping Plan" (CNRA 2009b).

emissions to 80% below 1990 levels, the First Update to the Climate Change Scoping Plan states the following (CARB 2014):

This level of reduction is achievable in California. In fact, if California realizes the expected benefits of existing policy goals (such as 12,000 megawatts of renewable distributed generation by 2020, net zero energy homes after 2020, existing building retrofits under AB 758, and others) it could reduce emissions by 2030 to levels squarely in line with those needed in the developed world and to stay on track to reduce emissions to 80% below 1990 levels by 2050. Additional measures, including locally driven measures and those necessary to meet federal air quality standards in 2032, could lead to even greater emission reductions.

In other words, CARB believes that the state is on a trajectory to meet the 2030 and 2050 GHG reduction targets set forth in AB 32, SB 32, and EO S-3-05. This is confirmed in the Second Update (CARB 2017b), which states the following:

The Proposed Plan builds upon the successful framework established by the Initial Scoping Plan and First Update, while also identifying new, technologically feasibility and cost-effective strategies to ensure that California meets its GHG reduction targets in a way that promotes and rewards innovation, continues to foster economic growth, and delivers improvements to the environment and public health, including in disadvantaged communities. The Proposed Plan is developed to be consistent with requirements set forth in AB 32, SB 32, and AB 197.

In addition, as discussed previously, the Proposed Project is consistent with the strategies in the Scoping Plan and would not conflict with the state's trajectory toward future GHG reductions. Since the specific path to compliance for the state in regard to the long-term goals will likely require development of technology or other changes that are not currently known or available, specific additional mitigation measures for the Proposed Project would be speculative and cannot be identified at this time. The Proposed Project's consistency would assist in meeting the County's contribution to GHG emission reduction targets in California. With respect to future GHG targets under SB 32 and EO S-3-05, CARB has also made clear its legal interpretation is that it has the requisite authority to adopt whatever regulations are necessary, beyond the AB 32 horizon year of 2020, to meet SB 32's 40% reduction target by 2030 and EO S-3-05's 80% reduction target by 2050; this legal interpretation by an expert agency provides evidence that future regulations will be adopted to continue the state on its trajectory toward meeting these future GHG targets. The Proposed Project would increase renewable energy production and thus would support the goals within SB 32, EO S-3-05, and EO B-55-18. Based on the considerations previously outlined, the Proposed Project would not conflict with an applicable plan, policy, or regulation adopted for the

purpose of reducing the emissions of GHGs, and no mitigation is required. This impact would be **less than significant**.

Consistency with SANDAG's San Diego Forward: the Regional Plan

Regarding consistency with SANDAG's Regional Plan, the Proposed Project would support the policy objectives of the RTP and SB 375. Table 3.1.3-11, San Diego Forward: The Regional Plan Consistency Analysis, illustrates the Proposed Project's consistency with all applicable goals and policies of San Diego Forward: The Regional Plan (SANDAG 2015). As shown in Table 3.1.3-11, the Proposed Project is consistent with all applicable Regional Plan Policy Objectives or Strategies. Impacts would be **less than significant**.

The Proposed Project would provide a potential reduction in GHG emissions each year of operation if the electricity generated by the solar facility were to be used instead of electricity generated by fossil-fuel sources. Specifically, the Proposed Project would directly aid the state in achieving statewide GHG emission reductions through the increased production of renewable energy as called for under Senate Bill X1 2, Senate Bill 350, and Senate Bill 100, and discussed in the Scoping Plan. The latest of these bills, Senate Bill 100, requires utilities to provide an energy mix containing at least 60% renewables by 2030. The Proposed Project would aid in meeting that target.

Therefore, because the Proposed Project would assist in the attainment of the state's goals by providing a new renewable source of energy that could displace electricity generated by fossil-fuel-fired power plants, the Proposed Project would be consistent with the regulations, plans, goals and objectives of the state and the County adopted to reduce GHG emissions, and would make a **less than cumulatively considerable contribution** to significant cumulative climate change impacts.

County GHG Reduction Plans

The Proposed Project is consistent with County plans and policies adopted to reduce GHG emissions. The County's General Plan includes many goals and policies adopted to reduce GHG emissions, which the General Plan organizes into "strategies." Strategy A-3 is to increase generation and use of renewable energy sources and includes Conservation and Open Space Policy COS-18.1 (County of San Diego 2011). The Conservation and Open Space Element of the County's General Plan "encourages and supports land use development patterns and transportation choices that reduce pollutants and greenhouse gases" and "encourages renewable energy production." Goal COS-18 promotes sustainable energy and encourages "[e]nergy systems that reduce consumption of non-renewable resources and reduce GHG and other air pollutant emissions while minimizing impacts to natural resources and communities." Policy COS-18.1

supports Goal COS-18 and directs the County to work with developers to facilitate the development of alternative energy systems. The Proposed Project is a renewable energy source is therefore consistent with Strategy A-3, Goal COS-18, Policy COS-18.1, and one of the primary purposes of the Conservation and Open Space Element. The Proposed Project would also support the County's Strategic Energy Plan and its community energy strategy goal of minimizing GHG emissions for healthier and more sustainable communities. It supports the key focus area of promoting renewable energy. Therefore, the Proposed Project would be consistent with the County's GHG reduction plans.

Switchyard Facilities

The ~~switchyard~~ Switchyard Facilities would support the Proposed Project and the production of renewable energy. It would not conflict with AB 32 or other GHG reducing plans, policies, or regulations. The ~~switchyard~~ Switchyard Facilities would comply with the SF₆ requirements that CARB has in place for reducing the leak rate of gas insulating switchgear. The ~~switchyard~~ Switchyard Facilities is not growth inducing and would have minimal GHG emissions during operation. Therefore, the ~~switchyard~~ Switchyard Facilities would have a **less than cumulatively considerable contribution** to significant cumulative climate change impacts.

3.1.3.4 Cumulative Impact Analysis

Due to the global nature of the assessment of GHG emissions and the effects of global climate change, impacts are analyzed from a cumulative impact context; therefore, this EIR's analysis includes the assessment of Proposed Project impacts as a cumulative impact as discussed in Section 3.1.3.4, Cumulative Impact Analysis.

Switchyard Facilities

Due to the global nature of the assessment of GHG emissions and the effects of global climate change, impacts are analyzed from a cumulative impact context; therefore, the ~~switchyard's~~ Switchyard Facilities' analysis includes an assessment of ~~switchyard~~ Switchyard Facilities impacts as a cumulative impact, as discussed in Section 3.1.3.4.

3.1.3.5 Significance of Impacts Prior to Mitigation

The Proposed Project would be consistent with applicable GHG reduction plans, and the Proposed Project would avoid more GHG emissions than it would generate; therefore, impacts related to GHG emissions would be **less than significant**.

3.1.3.6 Mitigation Measures

No mitigation is necessary.

3.1.3.7 Conclusion

The Proposed Project would avoid more GHG emissions than it would generate resulting in a **less than cumulatively considerable contribution** to cumulative climate change impacts. The Proposed Project is also consistent with applicable plans, policies, and regulations adopted to reduce GHG emissions, including SB X1 2, SB 350, and SB 100, and County General Plan Strategy A-3. The Proposed Project also supports the County's Strategic Energy Plan. The Proposed Project's amortized construction, decommissioning, and operational emissions, including the loss of sequestered carbon, would be 758 MT CO_{2e} per year. Further, the Proposed Project would avoid approximately ~~396,733~~ 540,721 MT CO_{2e} over its lifetime after subtracting total Proposed Project GHG emissions. Therefore, the Proposed Project would make a **less than significant** contribution to cumulative climate change impacts.

**Table 3.1.3-1
Greenhouse Gas Emissions Sources in California**

Source Category	Annual GHG Emissions (MMT CO ₂ e)	Percent of Total
Transportation	176.1	41%
Industrial	98.8	23%
Electricity (in state)	42.9	10%
Electricity (imports)	25.8	6%
Agriculture	34.4	8%
Residential	30.1	7%
Commercial	21.5	5%
Total	429.4	100%

Source: CARB 2018.

Note: MMT CO₂e = million metric tons of carbon dioxide equivalent per year.

**Table 3.1.3-2
San Diego County Greenhouse Gas Emissions by Sectors**

Source Category	Annual GHG Emissions (MMT CO ₂ e)	Percent of Total
On-road transportation	14.4	42%
Electricity generation	8.3	24%
Natural gas end uses	2.9	8%
Off-road equipment and vehicles	1.4	4%
Civil aviation	1.9	5%
Industrial processes and products	1.8	5%
Waste	0.6	2%
Water-borne navigation	0.1	<1%
Rail	0.32	<1%
Other fuels	1.58	5%
Agriculture (livestock)	0.05	<1%
Wildfires	0.28	<1%
Development (loss of vegetation)	0.18	<1%
Sequestration from land cover	0.66	2%
Total	34.5	100%

Source: EPIC 2013.

Note: MMT CO₂e = million metric tons of carbon dioxide equivalent per year.

**Table 3.1.3-3
Estimated Annual Operational Greenhouse Gas Emissions**

Emission Source	CO ₂	CH ₄	N ₂ O	CO ₂ e
	Metric Tons per Year			
Area ^a	0.00	0.00	0.00	6.73
Energy	0.93	0.00	0.00	0.93
Mobile	217.08	0.01	0.00	217.31
Stationary	4.58	0.00	0.00	4.61
Water	39.80	0.01	0.00	39.94
	<i>Subtotal</i>			281.39
	Amortized Construction Emissions over 35 Years			164.69 164.73
	Amortized Loss of Sequestered Carbon over 35 Years			242.94
	Amortized Decommissioning Emissions over 35 Years			68.71
	Total			757.73 757.77

Notes: CH₄ = methane; CO₂ = carbon dioxide; CO₂e = carbon dioxide equivalent; N₂O = nitrous oxide. See Appendix P for complete results.

^A Emissions from SF₆ are considered an area source.

**Table 3.1.3-4
Estimated Annual Construction Greenhouse Gas Emissions**

Year	CO ₂	CH ₄	N ₂ O	CO ₂ e
	Metric Tons per Year			
2020	267.40 <u>271.21</u>	0.03	0.00	268.22 <u>272.05</u>
2021	5,485.95 <u>5,494.26</u>	0.39 <u>0.40</u>	0.00	5,495.87 <u>5,504.22</u>
	Total			5,764.09 5,776.27
	Amortized Emissions over 35 Years			164.69 <u>165.04</u>

Notes: CH₄ = methane; CO₂ = carbon dioxide; CO₂e = carbon dioxide equivalent; N₂O = nitrous oxide. Construction emissions include CO₂ emissions from blasting activity.

See Appendix P for complete results.

**Table 3.1.3-5
Estimated Annual Decommissioning Greenhouse Gas Emissions – Proposed Project**

Year	CO ₂	CH ₄	N ₂ O	CO ₂ e
	Metric Tons per Year			
2057	2,402.75	0.08	0.00	2,404.76
	Amortized Emissions over 35 Years			68.71

Notes: CH₄ = methane; CO₂ = carbon dioxide; CO₂e = carbon dioxide equivalent; N₂O = nitrous oxide. Construction emissions include CO₂ emissions from blasting activity.

See Appendix P for complete results.

Table 3.1.3-6
Vegetation Removal – Estimated Loss of Sequestered Carbon

Vegetation Type	CalEEMod Vegetation Land Use Category	CO ₂ Emissions Factor	Net Loss (acres)	Loss of Sequestered Carbon
		(MT CO ₂ per acre)		(MT CO ₂)
Forest Land	Scrub	14.3	594.62	8,503.07
Amortized Emissions over 30 Years				242.94

Source: CAPCOA 2017.

Notes: MT CO₂ = metric tons carbon dioxide. See Appendix P for complete results.

Table 3.1.3-7
**Estimated Annual Construction Greenhouse Gas Emissions –
 Switchyard Facilities**

Year	CO ₂	CH ₄	N ₂ O	CO ₂ e
	Metric Tons per Year			
2020	335.53	0.05	0.00	336.90
Amortized Emissions over 35 Years				9.63

Notes: CH₄ = methane; CO₂ = carbon dioxide; CO₂e = carbon dioxide equivalent; N₂O = nitrous oxide Construction emissions include CO₂ emissions from blasting activity.

See Appendix P for complete results.

Table 3.1.3-8
**Estimated Annual Operational Greenhouse Gas Emissions –
 Switchyard Facilities**

Emission Source	CO ₂	CH ₄	N ₂ O	CO ₂ e
	Metric Tons per Year			
Area ^a	0.00	0.00	0.00	4.07
Mobile	10.03	0.00	0.00	8.81
Offroad	4.58	0.00	0.00	4.61
Subtotal				20.15
Amortized Construction Emissions over 35 Years				9.63
Total				29.78

Notes: CH₄ = methane; CO₂ = carbon dioxide; CO₂e = carbon dioxide equivalent; N₂O = nitrous oxide See Appendix P for complete results.

^A Emissions from SF₆ are considered an area source.

**Table 3.1.3-9
Estimated Annual Operational and Avoided Greenhouse Gas Emissions**

Emission Source	CO ₂	CH ₄	N ₂ O	CO ₂ e
	Metric Tons per Year			
Area ^a	0.00	0.00	0.00	6.73
Energy	0.93	0.00	0.00	0.93
Mobile	217.08	0.01	0.00	217.31
Offroad	4.58	0.00	0.00	4.61
Stationary	39.80	0.01	0.00	39.94
	<i>Subtotal</i>			281.39
	Amortized Construction Emissions over 35 Years			164.69 165.04
	Amortized Loss of Sequestered Carbon over 35 Years			242.94
	Amortized Decommissioning Emissions over 35 Years			68.71
	Total			757.73 758.08
	Total Proposed Project Emissions over 35-Year Lifetime			26,520.55 26,532.80
	Total Avoided GHG Emissions			423,253.51 567,253.54
	Net Avoided GHG Emissions			396,732.96 540,720.74

Notes: CH₄ = methane; CO₂ = carbon dioxide; CO₂e = carbon dioxide equivalent; N₂O = nitrous oxide See Appendix B of Appendix P for complete results.

^a Emissions from SF₆ are considered an area source.

**Table 3.1.3-10
Proposed Project Consistency with Scoping Plan GHG Emission Reduction Strategies**

Scoping Plan Measure	Measure Number	Proposed Project Consistency
<i>Transportation Sector</i>		
Advanced Clean Cars	T-1	Consistent. The Proposed Project's employees would purchase vehicles in compliance with CARB vehicle standards that are in effect at the time of vehicle purchase.
Low-Carbon Fuel Standard	T-2	Consistent. Motor vehicles driven by the Proposed Project's employees would use compliant fuels.
Regional Transportation-Related GHG Targets	T-3	Not applicable. The Proposed Project would not prevent CARB from implementing this measure.
Advanced Clean Transit	N/A	Not applicable. The Proposed Project would not prevent CARB from implementing this measure.
Last-Mile Delivery	N/A	Not applicable. The Proposed Project would not prevent CARB from implementing this measure.
Reduction in VMT	N/A	Not applicable. The Proposed Project would not prevent CARB from implementing this measure.
Vehicle Efficiency Measures 1. Tire Pressure 2. Fuel Efficiency Tire Program 3. Low-Friction Oil	T-4	Not applicable. The Proposed Project would not prevent CARB from implementing this measure.

**Table 3.1.3-10
Proposed Project Consistency with Scoping Plan GHG Emission Reduction Strategies**

Scoping Plan Measure	Measure Number	Proposed Project Consistency
4. Solar-Reflective Automotive Paint and Window Glazing		
Ship Electrification at Ports (Shore Power)	T-5	Not applicable. The Proposed Project would not prevent CARB from implementing this measure.
Goods Movement Efficiency Measures 1. Port Drayage Trucks 2. Transport Refrigeration Units Cold Storage Prohibition 3. Cargo Handling Equipment, Anti-Idling, Hybrid, Electrification 4. Goods Movement Systemwide Efficiency Improvements 5. Commercial Harbor Craft Maintenance and Design Efficiency 6. Clean Ships 7. Vessel Speed Reduction	T-6	Not applicable. The Proposed Project would not prevent CARB from implementing this measure.
Heavy-Duty Vehicle GHG Emission Reduction 1. Tractor-Trailer GHG Regulation 2. Heavy-Duty Greenhouse Gas Standards for New Vehicle and Engines (Phase I)	T-7	Not applicable. The Proposed Project would not prevent CARB from implementing this measure.
Medium- and Heavy-Duty Vehicle Hybridization Voucher Incentive Proposed Project	T-8	Not applicable. The Proposed Project would not prevent CARB from implementing this measure.
Medium and Heavy-Duty GHG Phase 2	N/A	Not applicable. The Proposed Project would not prevent CARB from implementing this measure.
High-Speed Rail	T-9	Not applicable. The Proposed Project would not prevent CARB from implementing this measure.
<i>Electricity and Natural Gas Sector</i>		
Energy Efficiency Measures (Electricity)	E-1	Not applicable. The Proposed Project would not prevent CARB from implementing this measure.
Energy Efficiency (Natural Gas)	CR-1	Not applicable. The Proposed Project would not prevent CARB from implementing this measure.
Solar Water Heating (California Solar Initiative Thermal Program)	CR-2	Not applicable. The Proposed Project would not prevent CARB from implementing this measure.
Combined Heat and Power	E-2	Not applicable. The Proposed Project would not prevent CARB from implementing this measure.
Renewables Portfolio Standard (33% by 2020)	E-3	Consistent. The Proposed Project would generate 90 MW of solar energy to support the Renewables Portfolio Standard.
Renewables Portfolio Standard (50% by 2050)	N/A	Consistent. The Proposed Project would generate 90 MW of solar energy to support the Renewables Portfolio Standard.
SB 1 Million Solar Roofs (California Solar Initiative, New Solar Home)	E-4	Not applicable. The Proposed Project would not prevent CARB from implementing this measure.

**Table 3.1.3-10
Proposed Project Consistency with Scoping Plan GHG Emission Reduction Strategies**

Scoping Plan Measure	Measure Number	Proposed Project Consistency
Partnership, Public Utility Programs) and Earlier Solar Programs		
<i>Water Sector</i>		
Water Use Efficiency	W-1	Consistent. The Proposed Project would use water for dust suppression during construction and panel rinsing during operation. The water used would be sourced from on-site non-potable water wells.
Water Recycling	W-2	Not applicable. The Proposed Project would not prevent CARB from implementing this measure.
Water System Energy Efficiency	W-3	Not applicable. The Proposed Project would not prevent CARB from implementing this measure.
Reuse Urban Runoff	W-4	Not applicable. The Proposed Project would not prevent CARB from implementing this measure.
Renewable Energy Production	W-5	Not applicable. This measure applies to renewable energy within the water sector. The Proposed Project would not prevent CARB from implementing this measure.
<i>Green Buildings</i>		
1. State Green Building Initiative: Leading the Way with State Buildings (Greening New and Existing State Buildings)	GB-1	Not applicable. The Proposed Project would not prevent CARB from implementing this measure.
2. Green Building Standards Code (Greening New Public Schools, Residential and Commercial Buildings)	GB-1	Not applicable. The Proposed Project would not prevent CARB from implementing this measure.
3. Beyond Code: Voluntary Programs at the Local Level (Greening New Public Schools, Residential and Commercial Buildings)	GB-1	Not applicable. The Proposed Project would not prevent CARB from implementing this measure.
4. Greening Existing Buildings (Greening Existing Homes and Commercial Buildings)	GB-1	Not applicable. The Proposed Project would not prevent CARB from implementing this measure.
<i>Industry Sector</i>		
Energy Efficiency and Co-Benefits Audits for Large Industrial Sources	I-1	Not applicable. The Proposed Project would not prevent CARB from implementing this measure.
Oil and Gas Extraction GHG Emission Reduction	I-2	Not applicable. The Proposed Project would not prevent CARB from implementing this measure.
Reduce GHG Emissions by 20% in Oil Refinery Sector	N/A	Not applicable. The Proposed Project would not prevent CARB from implementing this measure.
GHG Emissions Reduction from Natural Gas Transmission and Distribution	I-3	Not applicable. The Proposed Project would not prevent CARB from implementing this measure.
Refinery Flare Recovery Process Improvements	I-4	Not applicable. The Proposed Project would not prevent CARB from implementing this measure.
Work with the local air districts to evaluate amendments to their existing leak detection and repair rules for industrial facilities to	I-5	Not applicable. The Proposed Project would not prevent CARB from implementing this measure.

**Table 3.1.3-10
Proposed Project Consistency with Scoping Plan GHG Emission Reduction Strategies**

Scoping Plan Measure	Measure Number	Proposed Project Consistency
include methane leaks		
<i>Recycling and Waste Management Sector</i>		
Landfill Methane Control Measure	RW-1	Not applicable. The Proposed Project would not prevent CARB from implementing this measure.
Increasing the Efficiency of Landfill Methane Capture	RW-2	Not applicable. The Proposed Project would not prevent CARB from implementing this measure.
Mandatory Commercial Recycling	RW-3	Consistent. The Proposed Project would recycle the maximum extent that is feasible in accordance with state and local regulations.
Increase Production and Markets for Compost and Other Organics	RW-3	Not applicable. The Proposed Project would not prevent CARB from implementing this measure.
Anaerobic/Aerobic Digestion	RW-3	Not applicable. The Proposed Project would not prevent CARB from implementing this measure.
Extended Producer Responsibility	RW-3	Not applicable. The Proposed Project would not prevent CARB from implementing this measure.
Environmentally Preferable Purchasing	RW-3	Not applicable. The Proposed Project would not prevent CARB from implementing this measure.
<i>Forests Sector</i>		
Sustainable Forest Target	F-1	Not applicable. The Proposed Project would not prevent CARB from implementing this measure.
<i>High GWP Gases Sector</i>		
Motor Vehicle Air Conditioning Systems: Reduction of Refrigerant Emissions from Non-Professional Servicing	H-1	Not applicable. The Proposed Project would not prevent CARB from implementing this measure.
SF ₆ Limits in Non-Utility and Non-Semiconductor Applications	H-2	Not applicable. The Proposed Project would not prevent CARB from implementing this measure.
Reduction of Perfluorocarbons (PFCs) in Semiconductor Manufacturing	H-3	Not applicable. The Proposed Project would not prevent CARB from implementing this measure.
Limit High GWP Use in Consumer Products	H-4	Not applicable. The Proposed Project would not prevent CARB from implementing this measure.
Air Conditioning Refrigerant Leak Test During Vehicle Smog Check	H-5	Not applicable. The Proposed Project would not prevent CARB from implementing this measure.
Stationary Equipment Refrigerant Management Program – Refrigerant Tracking/Reporting/Repair Program	H-6	Not applicable. The Proposed Project would not prevent CARB from implementing this measure.
Stationary Equipment Refrigerant Management Program – Specifications for Commercial and Industrial Refrigeration	H-6	Not applicable. The Proposed Project would not prevent CARB from implementing this measure.
SF ₆ Leak Reduction Gas Insulated Switchgear	H-6	Consistent. The Proposed Project would use gas insulated switchgear that would be subject to CARB regulations and meet the leak rate mandates.
40% reduction in methane and hydrofluorocarbon (HFC) emissions	N/A	Not applicable. The Proposed Project would not prevent CARB from implementing this measure.

Table 3.1.3-10
Proposed Project Consistency with Scoping Plan GHG Emission Reduction Strategies

Scoping Plan Measure	Measure Number	Proposed Project Consistency
50% reduction in black carbon emissions	N/A	Not applicable. The Proposed Project would not prevent CARB from implementing this measure.
<i>Agriculture Sector</i>		
Methane Capture at Large Dairies	A-1	Not applicable. The Proposed Project would not prevent CARB from implementing this measure.

Source: CARB 2008, 2017b.

Notes: GHG = greenhouse gas; CARB = California Air Resources Board; N/A = not applicable; VMT = vehicle miles traveled; SF₆ = sulfur hexafluoride; PFC = perfluorocarbon; GWP = global warming potential.

Table 3.1.3-11
San Diego Forward: The Regional Plan Consistency Analysis

Category	Policy Objective or Strategy	Consistency Analysis
<i>The Regional Plan – Policy Objectives</i>		
Mobility Choices	Provide safe, secure, healthy, affordable, and convenient travel choices between the places where people live, work, and play.	Not Applicable. The Proposed Project would not impair the ability of SANDAG to provide safe, secure, healthy, affordable, and convenient travel choices between the places where people live, work, and play.
Mobility Choices	Take advantage of new technologies to make the transportation system more efficient and environmentally friendly.	Not Applicable. The Proposed Project would not impair the ability of SANDAG to take advantage of new technologies to make the transportation system more efficient and environmentally friendly.
Habitat and Open Space Preservation	Focus growth in areas that are already urbanized, allowing the region to set aside and restore more open space in our less developed areas.	Consistent. The Proposed Project would be located on currently disturbed land used mainly for agriculture. The Proposed Project would not impair existing open space.
Habitat and Open Space Preservation	Protect and restore our region's urban canyons, coastlines, beaches, and water resources.	Consistent. The Proposed Project would primarily be located on currently disturbed land used mainly for agriculture. The Proposed Project would not impair existing open space.
Regional Economic Prosperity	Invest in transportation projects that provide access for all communities to a variety of jobs with competitive wages.	Not Applicable. The Proposed Project would not impair the ability of SANDAG to invest in transportation projects available to all members of the Community.
Regional Economic Prosperity	Build infrastructure that makes the movement of freight in our community more efficient and environmentally friendly.	Not Applicable. The Proposed Project does not propose regional freight movement, nor would it impair SANDAG's ability to preserve and expand options for regional freight movement.

Table 3.1.3-11
San Diego Forward: The Regional Plan Consistency Analysis

Category	Policy Objective or Strategy	Consistency Analysis
Partnerships/Collaboration	Collaborate with Native American tribes, Mexico, military bases, neighboring counties, infrastructure providers, the private sector, and local communities to design a transportation system that connects to the mega-region and national network, works for everyone, and fosters a high quality of life for all.	Not Applicable. The Proposed Project would not impair the ability of SANDAG to provide transportation choices to better connect the San Diego region with Mexico, neighboring counties, and tribal nations.
Partnerships/Collaboration	As we plan for our region, recognize the vital economic, environmental, cultural, and community linkages between the San Diego region and Baja California.	Not Applicable. The Proposed Project would not impair the ability of SANDAG to provide transportation choices to better connect the San Diego region with Mexico.
Healthy and Complete Communities	Create great places for everyone to live, work, and play.	Not Applicable. The Proposed Project would not impair the ability of SANDAG to create great places for everyone to live, work, and play.
Healthy and Complete Communities	Connect communities through a variety of transportation choices that promote healthy lifestyles, including walking and biking.	Not Applicable. The Proposed Project would not impair the ability of SANDAG to connect communities through a variety of transportation choices that promote healthy lifestyles, including walking and biking.
Environmental Stewardship	Make transportation investments that result in cleaner air, environmental protection, conservation, efficiency, and sustainable living.	Consistent. The Proposed Project would support the goal of producing clean energy for sustainable living.
Environmental Stewardship	Support energy programs that promote sustainability.	Consistent. The Proposed Project would support the goal of producing clean energy for sustainable living.
<i>Sustainable Communities Strategy – Strategies</i>		
Strategy #1	Focus housing and job growth in urbanized areas where there is existing and planned transportation infrastructure, including transit.	Not Applicable. The Proposed Project would not include housing or job growth.
Strategy #2	Protect the environment and help ensure the success of smart growth land use policies by preserving sensitive habitat, open space, cultural resources, and farmland.	Consistent. The Proposed Project would primarily be located on currently disturbed land used mainly for agriculture. The Proposed Project would not impair existing open space.
Strategy #3	Invest in a transportation network that gives people transportation choices and reduces greenhouse gas emissions.	Consistent. The Proposed Project would help reduce greenhouse gas emissions through the production of clean renewable energy.
Strategy #4	Address the housing needs of all economic segments of the population.	Not Applicable. The Proposed Project would not impair the ability of SANDAG to address the housing needs of all economic segments of the population.

**Table 3.1.3-11
San Diego Forward: The Regional Plan Consistency Analysis**

Category	Policy Objective or Strategy	Consistency Analysis
Strategy #5	Implement the Regional Plan through incentives and collaboration.	Not Applicable. The Proposed Project would not impair the ability of SANDAG to implement the Regional Transportation Plan through incentives and collaborations.

Source: SANDAG 2015

Notes: SANDAG = San Diego Association of Governments.

INTENTIONALLY LEFT BLANK