

IV. Environmental Impact Analysis

F. Greenhouse Gas Emissions

1. Introduction

This section describes the environmental setting and existing conditions of the Project Site and vicinity as it relates to greenhouse gas (GHG), identifies the associated regulatory framework, and evaluates potential short-term and long-term GHG emissions that would be associated with construction and operation of the Project, inclusive of mandatory and voluntary energy and resource conservation measures that have been incorporated into its design. The estimates of the Project's GHG emissions are based on the emissions modeling, which can be found in Appendix B-2. The analysis also addresses the Project's compliance/consistency with applicable regulations, plans, and policies set forth by the State of California, South Coast Air Quality Management District (SCAQMD), Southern California Association of Governments (SCAG), and the City of Los Angeles (City) to reduce GHG emissions.

The Project's potential contributions to global climate change are identified. Notably, global climate change is a cumulative impact; a project contributes to this potential impact through its incremental generation of GHG emissions combined with the cumulative emissions from all other sources of GHGs. While the Project would result in emissions of GHGs during construction and operation, no guidance exists to indicate what quantity 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.¹

Thus, GHG impacts are recognized as exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective.² This approach is consistent with that recommended by the California Natural Resources Agency (CNRA), which noted in its Public Notice of proposed amendments to the California Environmental

¹ "With respect to climate change, an individual project's emissions will most likely not have any appreciable impact on the global problem by themselves, but they will contribute to the significant cumulative impact caused by greenhouse gas emissions from other sources around the globe. The question therefore becomes whether the project's incremental addition of greenhouse gases is 'cumulatively considerable' in light of the global problem, and thus significant." (*CBD v. Department of Fish & Wildlife* (2015) 62 Cal.4th 204, 219)

² California Air Pollution Control Officers Association, *CEQA & Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act*, January 2008.

Quality Act (CEQA) 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.³ Similarly, the CNRA's Final Statement of Reasons for Regulatory Action on the CEQA amendments confirm that an Environmental Impact Report (EIR) or other environmental document must analyze the incremental contribution of a project to GHG levels and determine whether those emissions are cumulatively considerable.⁴ Accordingly, further discussion of the Project's GHG emissions and their impact on global climate are addressed below.

2. Environmental Setting

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). 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 Earth's energy balance, including variations in the sun's energy reaching Earth, changes in the reflectivity of Earth's atmosphere and surface, and changes in the greenhouse effect, which affects the amount of heat retained by Earth's atmosphere.⁵

The greenhouse effect is the trapping and build-up of heat in the atmosphere (troposphere) near Earth's surface through a threefold process: short-wave radiation emitted by the sun is absorbed by Earth, 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 Earth. The greenhouse effect is a natural process that contributes to regulating Earth's temperature and creates a pleasant, livable environment on Earth. 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 Earth's surface temperature to rise.

The scientific record of 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 is the most

³ California Natural Resources Agency (CNRA), Notice of Public Hearings and Notice of Proposed Amendment of Regulations Implementing the California Environmental Quality Act, 2009.

⁴ CNRA, Final Statement of Reasons for Regulatory Action: Amendments to the State CEQA Guidelines Addressing Analysis and Mitigation of Greenhouse Gas Emissions Pursuant to SB97, December 2009.

⁵ U.S. Environmental Protection Agency (USEPA), Climate Change, last updated January 19, 2017.

significant driver of observed climate change.^{6,7} Human influence on the climate system is evident from the increasing GHG concentrations in the atmosphere, positive radiative forcing, observed warming, and improved understanding of the climate system. The atmospheric concentrations of GHGs have increased to levels unprecedented in the last 800,000 years, primarily from fossil fuel emissions and secondarily from emissions associated with land use changes.⁸

a) Greenhouse Gases

A GHG is any gas that absorbs infrared radiation in the atmosphere (i.e., GHGs trap heat in the atmosphere). 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 (PFCs), sulfur hexafluoride (SF₆), and nitrogen trifluoride (NF₃) (see also 14 California Code of Regulations (CCR) Section 15364.5).⁹ Some GHGs, such as CO₂, CH₄, and N₂O, are emitted into 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, PFCs, and SF₆, which are associated with certain industrial products and processes. The following paragraphs provide a summary of the most common GHGs and their sources.^{10,11,12}

Carbon Dioxide. CO₂ is a naturally occurring gas and a by-product of human activities and is the principal anthropogenic GHG that affects 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 from the combustion of fuels, such as coal, oil, natural gas, and wood and changes in land use.

⁶ USEPA, Climate Change, last updated January 19, 2017.

⁷ Intergovernmental Panel on Climate Change (IPCC), Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change, 2013.

⁸ IPCC, Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change, 2013.

⁹ Climate forcing substances include GHGs and other substances such as black carbon and aerosols. This discussion focuses on the seven GHGs identified in the California Health and Safety Code Section 38505, because impacts associated with other climate forcing substances are not evaluated herein.

¹⁰ IPCC, Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change, 2007.

¹¹ California Air Resources Board (CARB), Glossary of Terms Used in Greenhouse Gas Inventories, June 22, 2018.

¹² USEPA, Climate Change, last updated January 19, 2017.

Methane. CH₄ is produced through both natural and human activities. 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 is produced through natural and human activities, mainly through agricultural activities and natural biological processes, although fuel burning and other processes also create 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 using N₂O as a propellant (such as in rockets, racecars, and aerosol sprays).

Fluorinated Gases. Fluorinated gases (also referred to as F-gases) are synthetic powerful GHGs emitted from many industrial processes. Fluorinated gases are commonly used as substitutes for stratospheric ozone-depleting substances (e.g., chlorofluorocarbons (CFCs), hydrochlorofluorocarbons (HCFCs), and halons). The most prevalent fluorinated gases include the following:

- **Hydrofluorocarbons:** HFCs are compounds containing only hydrogen, fluorine, and carbon atoms. HFCs are synthetic chemicals used as alternatives to ozone-depleting substances in serving many industrial, commercial, and personal needs. HFCs are emitted as by-products of industrial processes and are used in manufacturing.
- **Perfluorocarbons:** PFCs are a group of human-made chemicals composed of carbon and fluorine only. These chemicals were introduced as alternatives, with HFCs, to the ozone depleting substances. The two main sources of PFCs are primary aluminum production and semiconductor manufacturing. Since PFCs have stable molecular structures and do not break down through the chemical processes in the lower atmosphere, these chemicals have long lifetimes, ranging between 10,000 and 50,000 years.
- **Sulfur Hexafluoride:** SF₆ is a colorless gas soluble in alcohol and ether and slightly soluble in water. SF₆ is used for insulation in electric power transmission and distribution equipment, semiconductor manufacturing, the magnesium industry, and as a tracer gas for leak detection.
- **Nitrogen Trifluoride:** NF₃ is used in the manufacture of a variety of electronics, including semiconductors and flat panel displays.

The effect each GHG has on climate change is measured as a combination of the mass of its emissions and the potential of a gas or aerosol to trap heat in the atmosphere, known as its global warming potential (GWP). The GWP varies between GHGs (e.g., the GWP of CH₄ is 25, meaning CH₄ is 25 times more potent than an equivalent mass of CO₂, and the GWP of N₂O is 298). Total GHG emissions are expressed as a function of how much warming would be caused by the same mass of CO₂. Thus, GHG emissions are typically measured in terms of pounds or tons of CO₂ equivalent (CO₂e).¹³

b) 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 2014 Intergovernmental Panel on Climate Change 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.¹⁴ Signs that global climate change has occurred include warming of the atmosphere and ocean, diminished amounts of snow and ice, rising sea levels, and ocean acidification.¹⁵

In California, climate change impacts have the potential to affect sea-level rise, agriculture, snowpack and water supply, forestry, wildfire risk, public health, frequency of severe weather events, and electricity demand and supply. The primary effect of global climate change has been a rise in average global tropospheric temperature. Reflecting the long-term warming trend since pre-industrial times, observed global mean surface temperature for the decade 2006–2015 was 0.87°C (likely between 0.75°C and 0.99°C) higher than the average over the 1850–1900 period.¹⁶ Scientific modeling predicts that continued emissions of GHGs at or above current rates would induce more extreme climate changes during the twenty-first century than were observed during the twentieth century. Human activities are estimated to have caused approximately 1.0°C (1.8°F) of global warming above pre-industrial levels, with a likely

¹³ The CO₂ equivalent for a gas is derived by multiplying the mass of the gas by the associated GWP, such that metric tons of CO₂e = (metric tons of a GHG) × (GWP of the GHG). For example, the GWP for CH₄ is 25. This means that emissions of 1 metric ton of CH₄ are equivalent to emissions of 25 metric tons of CO₂.

¹⁴ IPCC, Climate Change 2014 Synthesis Report: A Report of the Intergovernmental Panel on Climate Change, 2014.

¹⁵ IPCC, Climate Change 2014 Synthesis Report: A Report of the Intergovernmental Panel on Climate Change, 2014.

¹⁶ IPCC, Summary for Policymakers, in Global Warming of 1.5°C – An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty, 2018.

range of 0.8°C to 1.2°C (1.4°F to 2.2°F).¹⁷ Global warming is likely to reach 1.5°C (2.7°F) between 2030 and 2052 if it continues to increase at the current rate.¹⁸

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 Office of Environmental Health Hazard Assessment identified various indicators of climate change in California, which are scientifically-based measurements that track trends in various aspects of climate change. Many indicators reveal discernable evidence that climate change is occurring in California and is having significant, measurable impacts in the State. Changes in the State's climate have been observed, including an increase in annual average air temperature with record warmth from 2012 to 2016, more frequent extreme heat events, more extreme drought, a decline in winter chill, an increase in cooling degree days and a decrease in heating degree days, and an increase in variability of Statewide precipitation.¹⁹

Warming temperatures and changing precipitation patterns have altered California's physical systems—the ocean, lakes, rivers and snowpack—upon which the State depends. Winter snowpack and spring snowmelt runoff from the Sierra Nevada and southern Cascade Mountains provide approximately one-third of the State's annual water supply. Impacts of climate on physical systems have been observed, such as high variability of snow-water content (i.e., amount of water stored in snowpack), decrease in snowmelt runoff, glacier change (loss in area), rise in sea levels, increase in average lake water temperature and coastal ocean temperature, and a decrease in dissolved oxygen in coastal waters.²⁰

Impacts of climate change on biological systems, including humans, wildlife, and vegetation, have also been observed including climate change impacts on terrestrial, marine, and freshwater ecosystems. As with global observations, species responses include those consistent with warming: elevational or latitudinal shifts in range, changes in the timing of key plant and animal life cycle events, and changes in the abundance of species and in community composition. Humans are better able to adapt to a changing climate than plants and animals in natural ecosystems. Nevertheless, climate change

¹⁷ IPCC, Summary for Policymakers, in *Global Warming of 1.5°C – An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty*, 2018.

¹⁸ IPCC, Summary for Policymakers, in *Global Warming of 1.5°C – An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty*, 2018.

¹⁹ Office of Environmental Health Hazard Assessment (OEHHA), *Indicators of Climate Change in California*, May 9, 2018.

²⁰ OEHHA, *Indicators of Climate Change in California*, May 9, 2018.

poses a threat to public health as warming temperatures and changes in precipitation can affect vector-borne pathogen transmission and disease patterns in California, as well as the variability of heat-related deaths and illnesses. In addition, since 1950, the area burned by wildfires each year has been increasing.

The CNRA has released four California Climate Change Assessments (2006, 2009, 2012, and 2018), which have addressed the following: acceleration of warming across the State, more intense and frequent heat waves, greater riverine flows, accelerating sea level rise, more intense and frequent drought, more severe and frequent wildfires, more severe storms and extreme weather events, shrinking snowpack and less overall precipitation, and ocean acidification, hypoxia, and warming. To address local and regional governments need for information to support action in their communities, the Fourth Assessment in 2018 includes reports for nine regions of the State, including the Los Angeles Region where the Project is located. Key projected climate changes for the Los Angeles Region include the following:²¹

- Continued future warming over the Los Angeles Region. Across the Region, average maximum temperatures are projected to increase around 4°F to 5°F by the mid-century, and 5°F to 8°F by the late-century.
- Extreme temperatures are also expected to increase. The hottest day of the year may be up to 10°F warmer for many locations across the Los Angeles Region by the late-century under certain model scenarios. The number of extremely hot days is also expected to increase across the Region.
- Despite small changes in average precipitation, dry and wet extremes are both expected to increase. By the late twenty-first century, the wettest day of the year is expected to increase across most of the Los Angeles Region, with some locations experiencing 25-percent to 30-percent increases under certain model scenarios. Increased frequency and severity of atmospheric river events are also projected to occur for this region.
- Sea levels are projected to continue to rise in the future, but there is a large range based on emissions scenario and uncertainty in feedbacks in the climate system. Roughly 1 foot to 2 feet of sea level rise is projected by the mid-century, and the most extreme projections lead to 8 feet to 10 feet of sea level rise by the end of the century.
- Projections indicate that wildfire may increase over southern California, but there remains uncertainty in quantifying future changes of burned area over the Los Angeles Region.

²¹ CNRA, California's Fourth Climate Change Assessment – Los Angeles Regional Report, 2018.

c) Regulatory Framework

Regulation of GHGs in the United States and California is relatively recent, beginning early in the 2000s. In the absence of major federal efforts, California Governor Arnold Schwarzenegger and the legislature took initiatives to establish goals for reductions of GHG emissions in California and to prescribe a regulatory approach to ensuring that the goals would be met. The federal government, primarily through actions of the U.S. Environmental Protection Agency (EPA), has also begun to regulate GHG emissions, although not as comprehensively. This section provides a brief foundation for and discusses the key federal and state regulatory efforts that could apply to Project development and operation.

There are several plans, regulations, and programs that include policies, requirements, and guidelines regarding GHG emissions at the federal, state, regional, and local levels. As described below, these plans, guidelines, and laws include the following:

- Federal Clean Air Act
- Energy Independence and Security Act of 2007
- Federal and State Vehicle Standards State Climate Change Targets
- Building Energy (Title 24 parts 6 and 11)
- Renewable Energy and Energy Procurement
- State Regulations to Reduce Water Usage and Solid Waste Disposal
- SCAG Regional Transportation Plan/Sustainable Communities Strategy
- City of Los Angeles Green Building Code
- Sustainable City pLAN/L.A.'s Green New Deal

(1) Federal

(a) *Federal Clean Air Act*

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, PFCs, 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 that 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.

(b) *Energy Independence and Security Act of 2007*

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 (mpg) for the combined fleet of cars and light trucks by model year 2020, and directs 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.

(c) *Federal Vehicle Standards*

In 2007, in response to the *Massachusetts v. EPA* U.S. Supreme Court ruling, the Bush Administration issued Executive Order 13432 directing the 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 2012–2016.²²

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/mile of CO₂ in model year 2025, on an average industry fleet-wide basis, which is equivalent to 54.5 mpg if this level were achieved solely through fuel efficiency. The final rule was adopted in 2012 for model years 2017–2021.²³ On January 12, 2017, the EPA finalized its decision to maintain the current GHG emissions standards for model years 2022–2025 cars and light trucks.

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. 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 percent to 23 percent over the 2010 baselines.²⁴

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 applies to vehicles with model year 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 carbon dioxide emissions by approximately 1.1 billion metric tons (MT) and reduce oil consumption by up to 2 billion barrels over the lifetime of the vehicles sold under the program.²⁵

On April 2, 2018, the EPA, under Administrator Scott Pruitt, reconsidered the final determination for light-duty vehicles and withdrew its previous 2017 determination, stating that the current standards may be too stringent and, therefore, should be revised as appropriate.²⁶

²² 75 FR 25324–25728.

²³ 77 FR 62624–63200.

²⁴ 76 FR 57106–57513.

²⁵ USEPA and NHTSA (U.S. Environmental Protection Agency and Department of Transportation's National Highway Traffic Safety Administration). USEPA and NHTSA Adopt Standards to Reduce Greenhouse Gas Emissions and Improve Fuel Efficiency of Medium- and Heavy-Duty Vehicles for Model Year 2018 and Beyond, August 2016.

²⁶ USEPA, Mid-Term Evaluation of Light-Duty Vehicle Greenhouse Gas Emissions Standards for Model Years 2022-2025, last updated April 2019.

In August 2018, EPA and NHTSA proposed the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule to amend certain fuel economy and GHG standards for passenger cars and light trucks and establish new standards for model years 2021 through 2026. The proposed standards are 43.7 mpg (204 grams of CO₂ per mile) for passenger cars and 31.3 mpg (284 grams of CO₂ per mile) for light trucks, projecting an overall industry average of 37 mpg in model years 2021 through 2026, as compared to 46.7 mpg requirement in model year 2025 under the standards issued in 2012. The SAFE Vehicles Rule would also exclude CO₂-equivalent emission improvements associated with air conditioning refrigerants and leakage (and, optionally, offsets for N₂O and CH₄ emissions) after model year 2020. Compared to maintaining the post-2020 standards now in place, the 2018 proposal would increase U.S. fuel consumption by about half a million barrels per day (2 percent to 3 percent of total daily consumption, according to the Energy Information Administration) and would impact the global climate by 3/1000th of 1°C by 2100.²⁷ 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.

On September 27, 2019, the EPA and NHTSA published the SAFE Vehicles Rule Part One: One National Program,²⁸ which became effective November 26, 2019. The Part One Rule revokes California's authority to set its own GHG emissions standards and set zero-emission vehicle mandates in California. On March 31, 2020, the EPA and NHTSA issued the Part Two Rule, which went into effect 60 days after being published in the Federal Register. The Part Two Rule sets CO₂ emissions standards and corporate average fuel economy standards for passenger vehicles and light-duty trucks for model years 2021 through 2026. This issue is evolving as California and 22 other states, as well as the District of Columbia and four cities, filed suit against the EPA and a petition for reconsideration of the rule on November 26, 2019. It is unknown as to when this litigation will be resolved.

(2) 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. The following text describes Executive Orders, Assembly Bills (ABs), Senate Bills (SBs), and other plans and policies that would directly or indirectly reduce GHG emissions and/or address climate change issues.

²⁷ USEPA and NHTSA, The Safer Affordable Fuel-Efficient 'SAFE' Vehicles Rule for Model Years 2021-2026 Passenger Vehicles and Light Trucks, August 2018.

²⁸ 84 FR 51310.

(a) *California Air Resources Board*

The California Air Resources Board (CARB), a part of the California Environmental Protection Agency (CalEPA), is “the state agency charged with monitoring and regulating sources of emissions of greenhouse gases that cause global warming in order to reduce emissions of greenhouse gases.”²⁹ In this capacity, CARB conducts research, compiles emission inventories, develops suggested control measures, and provides oversight of local programs. CARB establishes emissions standards for motor vehicles sold in California, consumer products, and various types of commercial equipment.

(b) *State Climate Change Targets*

The State has taken a number of actions to establish and attain climate change targets. These include Executive Orders, legislation, and CARB plans and requirements. These are summarized below.

(i) *Executive Order S-3-05*

Executive Order S-3-05 (June 2005) identified GHG emissions reduction targets and laid out responsibilities among the State agencies for implementing Executive Order S-3-05 and for reporting on progress toward the targets. Executive Order S-3-05 identified the following targets:

- By 2010, reduce GHG emissions to 2000 levels.
- By 2020, reduce GHG emissions to 1990 levels.
- By 2050, reduce GHG emissions to 80 percent below 1990 levels.

Executive Order S-3-05 also directed the CalEPA to report biannually on progress made toward meeting the GHG targets and the impacts to California due to global warming, including impacts to water supply, public health, agriculture, the coastline, and forestry. The Climate Action Team was formed, which subsequently issued reports from 2006 to 2010.

(ii) *AB 32*

In AB 32 (Núñez and Pavley), the State Legislature adopted the 2020 goal identified in Executive Order S-3-05. The bill is referred to as the California Global Warming Solutions Act of 2006 (September 27, 2006). AB 32 provided initial direction on creating a comprehensive multiyear program to limit California’s GHG emissions at 1990 levels by 2020 and initiate the transformations required to achieve the State’s long-range climate objectives.

²⁹ Health and Safety Code, Section 38510.

(iii) *Executive Order B-30-15*

Executive Order B-30-15 (April 2015) identified an interim GHG reduction target in support of targets previously identified under Executive Order S-3-05 and AB 32. Executive Order B-30-15 set an interim target goal of reducing GHG emissions to 40 percent below 1990 levels by 2030 to keep California on its trajectory toward meeting or exceeding the long-term goal of reducing GHG emissions to 80 percent below 1990 levels by 2050 as set forth in Executive Order S-3-05. To facilitate achieving this goal, Executive Order B-30-15 called for CARB to update the scoping plan to express the 2030 target in terms of million metric tons (MMT) CO_{2e}. Executive Order B-30-15 also called for State agencies to continue to develop and implement GHG emission reduction programs in support of the reduction targets.

(iv) *SB 32 and AB 197*

SB 32 and AB 197 (enacted in 2016) are companion bills. SB 32 codified the 2030 emissions reduction goal of Executive Order B-30-15 by requiring CARB to ensure that statewide GHG emissions are reduced to 40 percent 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 added two members of the Legislature to the CARB Board as nonvoting members; requires CARB to make available and update (at least annually via its website) emissions data for GHGs, criteria air pollutants, and toxic air contaminants from reporting facilities; and requires CARB to identify specific information for GHG emissions reduction measures when updating the scoping plan.

(v) *CARB's 2007 Statewide Limit*

In 2007, in accordance with California Health and Safety Code Section 38550, CARB approved a Statewide limit on the GHG emissions level for year 2020 consistent with the determined 1990 baseline (427 MMT CO_{2e}).

(vi) *Climate Change Scoping Plan (2008)*

One specific requirement of AB 32 is for CARB to prepare a "scoping plan" for achieving the maximum technologically feasible and cost-effective GHG emission reductions by 2020,³⁰ and to update the plan at least once every 5 years. In 2008, CARB approved the first scoping plan. The Climate Change Proposed Scoping Plan: A Framework for Change (Scoping Plan) included a mix of recommended strategies that combined direct regulations, market-based approaches, voluntary measures, policies, and other emission reduction programs calculated to meet the 2020 statewide GHG emission limit and initiate

³⁰ Health and Safety Code Section 38561(a).

the transformations needed to achieve the State’s long-range climate objectives. The key elements of the first Scoping Plan include the following:³¹

1. Expanding and strengthening existing energy efficiency programs as well as building and appliance standards.
2. Achieving a statewide renewable energy mix of 33 percent.
3. Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system and caps sources contributing 85 percent of California’s GHG emissions.
4. Establishing targets for transportation-related GHG emissions for regions throughout California, and pursuing policies and incentives to achieve those targets.
5. Adopting and implementing measures pursuant to existing state laws and policies, including California’s clean car standards, goods movement measures, and the Low Carbon Fuel Standard(LCFS).³²
6. Creating targeted fees, including a public goods charge on water use, fees on high GWP gases, and a fee to fund the administrative costs of the State of California’s long-term commitment to AB 32 implementation.

The first Scoping Plan also encouraged local governments to adopt a reduction goal for municipal operations and for community emissions to reduce GHGs by approximately 15 percent from then levels (2008) by 2020. Many local governments developed community-level local GHG reduction plans based on this Scoping Plan recommendation.

(vii) First Update to Climate Change Scoping Plan (2014)

In 2014, CARB approved the first update to the Scoping Plan. The First Update to the Climate Change Scoping Plan: Building on the Framework (First Update) defined the State’s GHG emission reduction priorities for the next 5 years and laid the groundwork to start the transition to the post-2020 goals set forth in Executive Orders S-3-05 and B-16-2012.³³ The First Update concluded that California is on track to meet the 2020 target but recommended a 2030 mid-term GHG reduction target be established to ensure a continuum of action to reduce emissions. The First Update recommended a mix of technologies in key economic sectors to reduce emissions through 2050, including energy demand reduction through efficiency and activity changes; large-scale electrification of on-road vehicles, buildings and industrial machinery; decarbonizing electricity and fuel

³¹ CARB, Climate Change Proposed Scoping Plan: A Framework for Change, October 2008.

³² 17 California Code of Regulations (CCR), Section 95480 et seq.

³³ CARB, First Update to the Climate Change Scoping Plan: Building on the Framework, May 2014.

supplies; and the rapid market penetration of efficient and clean energy technologies. As part of the First Update, CARB recalculated the target using the GWP values from the Intergovernmental Panel on Climate Change Fourth Assessment Report and determined that the 1990 GHG emissions inventory and 2020 GHG emissions limit should be increased from 427 MMT CO₂e to 431 MMT CO₂e. Therefore, the emission reductions necessary to achieve the 2020 emissions target of 431 MMT CO₂e would be 78.4 MMT CO₂e, or a reduction of GHG emissions by approximately 15.4 percent.

(viii) 2017 Climate Change Scoping Plan

In 2015, as directed by Executive Order B-30-15, CARB began working on an update to the Scoping Plan to incorporate the 2030 target of 40 percent below 1990 levels by 2030 to keep California on its trajectory toward meeting or exceeding the long-term goal of reducing GHG emissions to 80 percent below 1990 levels by 2050 as set forth in Executive Order S-3-05. Then Governor Jerry Brown called on California to pursue a new and ambitious set of strategies, in line with the five climate change pillars from his inaugural address, to reduce GHG emissions and prepare for the unavoidable impacts of climate change. In the summer of 2016, the Legislature affirmed the importance of addressing climate change through passage of SB 32 (described above).³⁴

On January 20, 2017, in response to the 2030 GHG reduction target, CARB released the 2017 Climate Change Scoping Plan Update (2017 Scoping Plan) for public review and comment.³⁵ The 2017 Scoping Plan builds on the successful framework established in the initial Scoping Plan and First Update, while identifying new, technologically feasible and cost-effective strategies that will serve as the framework to achieve the 2030 GHG target of 40 percent below 1990 levels and define the State's climate change priorities to 2030 and beyond. The measures identified as "known commitments" (i.e., existing programs or statutory requirements) include:

- Implementing renewable energy and energy efficiency (including the mandates of SB 350)
- Increased stringency of the LCFS
- Measures identified in the Mobile Source Strategy, including increased stringency of SB 375 targets
- Improved vehicle, truck, and freight movement emissions standards

³⁴ Pavley, Chapter 249, Statutes of 2016.

³⁵ CARB, California's 2017 Climate Change Scoping Plan, November 2017.

- Measures identified in the proposed Short-Lived Climate Pollutant Plan (SB 1383)
- To fill the gap in additional reductions needed to achieve the 2030 target, continuing the Cap-and-Trade Program and a measure to reduce GHGs from refineries by 20 percent

For local governments, the 2017 Scoping Plan replaced the initial Scoping Plan's 15-percent reduction goal with a recommendation to aim for a community-wide goal of no more than 6 MT CO₂e per capita by 2030 and no more than 2 MT CO₂e per capita by 2050, which are developed around the scientifically based levels necessary to limit global warming below 2°C. The 2017 Scoping Plan recognized the benefits of local government GHG planning (e.g., through climate action plans) and provide more information regarding tools CARB is working on to support those efforts. It also recognizes the CEQA streamlining provisions for project level review where there is a legally adequate climate action plan. The 2017 Scoping Plan was approved by CARB's Governing Board on December 14, 2017.

The 2017 Scoping Plan recommends strategies for implementation at the Statewide level to meet the goals of AB 32, SB 32, and the Executive Orders described above and establishes an overall framework for the measures that will be adopted to reduce California's GHG emissions. A project is considered consistent with these statutes and Executive Orders if it meets the general policies for reducing GHG emissions in order to facilitate the achievement of the State's goals and does not impede attainment of those goals.

(ix) Mandatory Reporting of Greenhouse Gas Emissions

CARB's Regulation for the Mandatory Reporting of Greenhouse Gas Emissions³⁶ incorporated by reference certain requirements that the EPA promulgated in its Final Rule on Mandatory Reporting of Greenhouse Gases.³⁷ Specifically, CCR Section 95100(c) of the Mandatory Reporting Regulation incorporated those requirements that EPA promulgated in the Federal Register on October 30, 2009; July 12, 2010; September 22, 2010; October 28, 2010; November 30, 2010; December 17, 2010; and April 25, 2011. In general, entities subject to the Mandatory Reporting Regulation that emit over 10,000 MT CO₂e per year are required to report annual GHGs through the California Electronic GHG Reporting Tool. Certain sectors, such as refineries and cement plants, are required to report regardless of emission levels. Entities that emit more than the 25,000 MT CO₂e per-year threshold are required to have their GHG emission report verified by a CARB-accredited third-party verifier.

³⁶ 17 CCR 95100–95157.

³⁷ 40 Code of Federal Regulations, Part 98.

(x) Executive Order B-18-12

Executive Order B-18-12 (April 2012) directed State agencies, departments, and other entities under the governor's executive authority to take action to reduce entity-wide GHG emissions by at least 10 percent by 2015 and 20 percent by 2020, as measured against a 2010 baseline.

(xi) 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; and SB 1383 (2016) requires CARB to approve and implement that strategy by January 1, 2018. SB 1383 also establishes specific targets for the reduction of SLCPs (40 percent below 2013 levels by 2030 for CH₄ and HFCs, and 50 percent 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, CH₄, and fluorinated gases.³⁸

(xii) Executive Order B-55-18

Executive Order B-55-18 (September 2018) establishes a Statewide policy for the State to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter. The goal is an addition to the existing Statewide targets of reducing the State's GHG emissions. CARB will work with relevant State agencies to ensure that future Scoping Plans identify and recommend measures to achieve the carbon neutrality goal.

*(c) Building Energy**(i) Title 24, Part 6*

Title 24 of the CCR was established in 1978 and serves to enhance and regulate California's building standards. While not initially promulgated to reduce GHG emissions, Part 6 of Title 24 specifically established 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. These energy efficiency standards are reviewed every few years by the Building Standards Commission and the California Energy Commission (CEC) (and revised if necessary).³⁹ The regulations receive input

³⁸ CARB, Short-Lived Climate Pollutant Reduction Strategy, March 2017.

³⁹ California Public Resources Code (PRC) Section 25402(b)(1).

from members of industry, as well as the public, in order to “reduce the wasteful, uneconomic, inefficient, or unnecessary consumption of energy.”⁴⁰ These regulations are carefully scrutinized and analyzed for technological and economic feasibility and cost effectiveness. 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. The current Title 24 standards are the 2019 Title 24 Building Energy Efficiency Standards, which became effective January 1, 2020. Notably, Title 24, Part 6, does not apply to hospitals but applies to other facilities associated with the medical center, such as the medical office buildings.

(ii) *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 the CALGreen Code and establishes minimum mandatory standards, as well as voluntary standards pertaining to the planning and design of sustainable site development, energy efficiency, water conservation, material conservation, and interior air quality. The 2019 CALGreen standards, which are the current standards, became effective January 1, 2020.

Some of the key 2019 CALGreen standards that would apply to the Project would include the following:⁴¹

- Short-term bicycle parking. If the new project or an additional alteration is anticipated to generate visitor traffic, provide permanently anchored bicycle racks within 200 feet of the visitors’ entrance, readily visible to passers-by, for 5 percent of new visitor motorized vehicle parking spaces being added, with a minimum of one two-bike capacity rack.⁴²
- Long-term bicycle parking. For new buildings with tenant spaces that have 10 or more tenant-occupants, provide secure bicycle parking for 5 percent of the tenant-occupant vehicular parking spaces with a minimum of one bicycle parking facility.⁴³

⁴⁰ California PRC 25402.

⁴¹ 24 CCR Part 11.

⁴² 2019 CALGreen Standards, 24 CCR Part 11, Section 5.106.4.1.1.

⁴³ 2019 CALGreen Standards, 24 CCR Part 11, Section 5.106.4.1.2.

- Designated parking for clean air vehicles. In new projects or additions to alterations that add 10 or more vehicular parking spaces, provide designated parking for any combination of low-emitting, fuel-efficient and carpool/van pool vehicles as shown in Table 5.106.5.2 of the CALGreen Code.⁴⁴
- Electric vehicle (EV) charging stations. Construction shall comply with Section 5.106.5.3.1 (single charging space requirements) or Section 106.5.3.2 (multiple charging space requirements) of the CALGreen Code to facilitate future installation of electric vehicle supply equipment (EVSE). The compliance requires empty raceways for future conduit and documentation that the electrical system has adequate capacity for the future load. Table 5.106.5.3.3 of the CALGreen Code shall be used to determine if single or multiple charging space requirements apply for the future installation of EVSE.⁴⁵
- Shade trees. Shade trees shall be planted to comply with 2019 CALGreen standards, 24 CCR Part 11, Section 5.106.12.1 (surface parking areas), Section 5.106.12.2 (landscape areas), and Section 5.106.12.3 (hardscape areas). Percentages shown shall be measured at noon on the summer solstice. Landscape irrigation necessary to establish and maintain tree health shall comply with Section 5.304.6.⁴⁶
- Water conserving plumbing fixtures and fittings. Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with the following:
 - Water Closets. The effective flush volume of all water closets shall not exceed 1.28 gallons per flush.⁴⁷
 - Urinals. The effective flush volume of wall-mounted urinals shall not exceed 0.125 gallons per flush.⁴⁸ The effective flush volume of floor-mounted or other urinals shall not exceed 0.5 gallons per flush.⁴⁹
 - Showerheads. Single showerheads shall have a minimum flow rate of not more than 1.8 gallons per minute and 80 pressure per square inch (psi).⁵⁰

⁴⁴ 2019 CALGreen Standards, 24 CCR Part 11, Section 5.106.5.2.

⁴⁵ 2019 CALGreen Standards, 24 CCR Part 11, Section 5.106.5.3. Table 5.106.5.3.3 establishes a range of EV charging space requirements based on the total number of parking places of a project. At the minimum, no EV charging spaces are required if the project has a total of 0 to 9 parking spaces. At the maximum, 6 percent of the total parking spaces are required to be EV charging spaces for projects with a total number of actual parking spaces of 201 and over.

⁴⁶ 2019 CALGreen Standards, 24 CCR Part 11, Section 5.106.12.

⁴⁷ 2019 CALGreen Standards, 24 CCR Part 11, Section 5.303.3.1.

⁴⁸ 2019 CALGreen Standards, 24 CCR Part 11, Section 5.303.3.2.1.

⁴⁹ 2019 CALGreen Standards, 24 CCR Part 11, Section 5.303.3.2.2.

⁵⁰ 2019 CALGreen Standards, 24 CCR Part 11, Section 5.303.3.3.1.

- When a shower is served by more than one showerhead, the combined flow rate of all showerheads and/or other shower outlets controlled by a single valve shall not exceed 1.8 gallons per minute at 80 psi.⁵¹
- Faucets and fountains. Nonresidential lavatory kitchen faucets, wash fountains, metering faucets, and metering faucets for wash fountains shall comply with the specified flow rates in CALGreen.⁵²
 - Outdoor potable water use in landscaped areas. Nonresidential developments shall comply with a local water efficient landscape ordinance or the current California Department of Water Resources' Model Water Efficient Landscape Ordinance (MWELo), whichever is more stringent.⁵³
 - Recycled water supply systems. Recycled water supply systems shall be installed in accordance with CALGreen Code Section 5.305.1.1 (outdoor recycled water supply systems), Section 5.305.1.2 (technical requirements for outdoor recycled water supply systems), and the California Plumbing Code.⁵⁴
 - Construction waste management. Recycle and/or salvage for reuse a minimum of 65 percent of the nonhazardous construction and demolition waste in accordance with 2019 CALGreen standards, 24 CCR Part 11, Section 5.408.1.1 (construction waste management plan), 5.405.1.2 (waste management company), or Section 5.408.1.3 (waste stream reduction alternative); or meet a local construction and demolition waste management ordinance, whichever is more stringent.⁵⁵
 - Excavated soil and land clearing debris. 100 percent of trees, stumps, rocks and associated vegetation and soils resulting primarily from land clearing shall be reused or recycled. For a phased project, such material may be stockpiled on site until the storage site is developed.⁵⁶

⁵¹ 2019 CALGreen Standards, 24 CCR Part 11, Section 5.303.3.3.2.

⁵² 2019 CALGreen Standards, 24 CCR Part 11, Sections 5.303.3.4.1 through 5.303.3.4.5.

⁵³ 2019 CALGreen Standards, 24 CCR Part 11, Section 5.304.1.

⁵⁴ 2019 CALGreen Standards, 24 CCR Part 11, Section 5.305.1.

⁵⁵ 2019 CALGreen Standards, 24 CCR Part 11, Section 5.408.1.

⁵⁶ 2019 CALGreen Standards, 24 CCR Part 11, Section 5.408.3.

- Commissioning. For new buildings 10,000 square feet and over, building commissioning shall be included in the design and construction processes of the building project to verify that the building systems and components meet the owner's or owner representative's project requirements. Commissioning shall be performed in accordance with this section by trained personnel with experience on projects of comparable size and complexity.⁵⁷
- Outdoor Air Quality. Installations of HVAC, refrigeration, and fire suppression equipment shall comply with 2019 CALGreen standards, 24 CCR Part 11, Section 5.508.1.1 (no CFCs) and Section 5.508.1.2 (no halons).

The CALGreen standards also include voluntary efficiency measures that are implemented at the discretion of local agencies and applicants.

(iii) Title 20

CCR Title 20 requires manufacturers of appliances to meet State and federal standards for energy and water efficiency. The CEC certifies an appliance based on a manufacturer's demonstration that the appliance meets the standards. New appliances regulated by 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 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.

(iv) AB 1470 (Solar Water Heating)

This bill established the Solar Water Heating and Efficiency Act of 2007. The bill makes findings and declarations of the Legislature relating to the promotion of solar water heating systems and other technologies that reduce natural gas demand. The bill defines several terms for purposes of the act. The bill requires the commission to evaluate the data available from a specified pilot program, and if it makes a specified determination,

⁵⁷ 2019 CALGreen Standards, 24 CCR Part 11, Section 5.410.2.

to design and implement a program of incentives for the installation of 200,000 solar water heating systems in homes and businesses throughout the State by 2017.

(d) Renewable Energy and Energy Procurement

(i) SB 1078

SB 1078 (Sher; September 2002) established the Renewables Portfolio Standard (RPS) program, which required an annual increase in renewable generation by the utilities equivalent to at least 1 percent of sales, with an aggregate goal of 20 percent by 2017. This goal was subsequently accelerated, requiring utilities to obtain 20 percent of their power from renewable sources by 2010 (see SB 107, Executive Order S-14-08, and S-21-09).

(ii) SB 1368

SB 1368 (September 2006) required 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 (CPUC).

(iii) Executive Order S-14-08

Executive Order S-14-08 (November 2008) focused on the contribution of renewable energy sources to meet the electrical needs of California while reducing the GHG emissions from the electrical sector. Executive Order S-14-08 required that all retail suppliers of electricity in California serve 33 percent of their load with renewable energy by 2020. Furthermore, this Executive Order directed State agencies to take appropriate actions to facilitate reaching this target. The CNRA, through collaboration with CEC and the California Department of Fish and Wildlife, was directed to lead this effort.

(iv) Executive Order S-21-09 and SB X1-2

Executive Order S-21-09 (September 2009) directed CARB to adopt a regulation consistent with the goal of Executive Order S-14-08 by July 31, 2010. CARB was further directed to work with CPUC and CEC to ensure that the regulation builds upon the RPS program and was applicable to investor-owned utilities, publicly owned utilities, direct access providers, and community choice providers. Under this order, CARB was to give the highest priority to those renewable resources that provide the greatest environmental benefits with the least environmental costs and impacts on public health and can be developed the most quickly in support of reliable, efficient, cost-effective electricity system operations. On September 23, 2010, CARB initially approved regulations to implement a Renewable Electricity Standard. However, this regulation was not finalized because of

subsequent legislation (i.e., SB X1-2, Simitian, statutes of 2011) signed by Governor Brown in April 2011.

SB X1-2 expanded RPS by establishing a renewable energy target of 20 percent of the total electricity sold to retail customers in California per year by December 31, 2013, and 33 percent by December 31, 2020, and in subsequent years. 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 (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.

SB X1-2 applies to all electricity retailers in the State, including publicly owned utilities, investor-owned utilities, electricity service providers, and community choice aggregators. All of these entities must meet the renewable energy goals listed above.

(v) SB 350

SB 350 (October 2015) further expanded the RPS by establishing a goal of 50 percent of the total electricity sold to retail customers in California per year by December 31, 2030. In addition, SB 350 included 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 CPUC, in consultation with the CEC, to establish efficiency targets for electrical and gas corporations consistent with this goal.

(vi) SB 100

SB 100 (2018) increased the standards set forth in SB 350 establishing that 44 percent of the total electricity sold to retail customers in California per year by December 31, 2024, 52 percent by December 31, 2027, and 60 percent 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 percent of the retail sales of electricity to California by December 31, 2045. This bill requires that the achievement of 100 percent 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.

(e) *Mobile Sources*

(i) *AB 1493*

AB 1493 (Pavley; July 2002) was enacted in a response to the transportation sector accounting for more than half of California's CO₂ emissions. AB 1493 required CARB to set GHG emission standards for passenger vehicles, light-duty trucks, and other vehicles determined by the State board to be vehicles that are primarily used for noncommercial personal transportation in the State. The bill 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. When fully phased in, the near-term (2009–2012) standards will result in a reduction of about 22 percent in GHG emissions compared to the emissions from the 2002 fleet, while the mid-term (2013–2016) standards will result in a reduction of about 30 percent.

(ii) *Executive Order S-1-07*

Executive Order S-1-07 (January 2007, implementing regulation adopted in April 2009) sets a declining LCFS for GHG emissions measured in CO₂e grams per unit of fuel energy sold in California. The target of the LCFS is to reduce the carbon intensity of California passenger vehicle fuels by at least 10 percent by 2020.⁵⁸ 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. In September 2018, CARB adopted a more stringent carbon intensity reduction of 20 percent by 2030, in order to meet the Statewide 2030 GHG emissions target.⁵⁹

(iii) *SB 375*

SB 375 (Steinberg; September 2008) addresses GHG emissions associated with the transportation sector through regional transportation and sustainability plans. SB 375 requires CARB to adopt regional GHG reduction targets for the automobile and light-truck sector for 2020 and 2035 and to update those targets every 8 years. SB 375 requires the State's 18 regional metropolitan planning organizations (MPOs) to prepare a sustainable communities strategy (SCS) as part of their regional transportation plan (RTP) that will demonstrate how the region will achieve the GHG reduction targets set by CARB. If an MPO is unable to devise an SCS to achieve the GHG reduction target, the MPO 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.

⁵⁸ 17 CCR 95480 et seq.

⁵⁹ CARB, CARB Amends Low Carbon Fuel Standard for Wider Impact, 2018.

(iv) *Advanced Clean Cars Program and Zero-Emissions Vehicle Program*

The Advanced Clean Cars program (January 2012) is an emissions-control program for model years 2015 through 2025. The program combines the control of smog- and soot-causing pollutants and GHG emissions into a single coordinated package. The package includes elements to reduce smog-forming pollution, reduce GHG emissions, promote clean cars, and provide the fuels for clean cars.⁶⁰ To improve air quality, CARB has implemented new emission standards to reduce smog-forming emissions beginning with 2015 model year vehicles. It is estimated that in 2025 cars will emit 75 percent less smog-forming pollution than the average new car sold in 2015. The zero-emission vehicle (ZEV) program will act as the focused technology of the Advanced Clean Cars program by requiring manufacturers to produce increasing numbers of ZEVs and plug-in hybrid EVs in the 2018 to 2025 model years. However, as detailed previously, EPA and NHTSA published the SAFE Vehicles Rule, which revokes California's authority to set its own GHG emissions standards and set ZEV mandates in California. Since California and 22 other states, as well as the District of Columbia and four cities, filed suit against the EPA and a petition for reconsideration of the rule, the effect of the SAFE Rule on the Advanced Clean Cars program is still to be determined pending the ruling of ongoing litigation.

(v) *Executive Order B-16-1*

Executive Order B-16-12 (March 2012) required that state entities under the governor's direction and control support and facilitate the rapid commercialization of ZEVs. It ordered CARB, CEC, CPUC, and other relevant agencies to work with the Plug-in Electric Vehicle Collaborative and the California Fuel Cell Partnership to establish benchmarks to help achieve benchmark goals by 2015, 2020, and 2025. On a statewide basis, Executive Order B-16-12 established a target reduction of GHG emissions from the transportation sector equaling 80 percent less than 1990 levels by 2050. This directive did not apply to vehicles that have special performance requirements necessary for the protection of the public safety and welfare.

(vi) *Executive Order N-79-20*

Executive Order N-79-20 (September 2020) requires CARB to develop regulations as follows: (1) Passenger vehicle and truck regulations requiring increasing volumes of new ZEVs sold in the State towards the target of 100 percent of in-state sales by 2035; (2) medium- and heavy-duty vehicle regulations requiring increasing volumes of new zero-emission trucks and buses sold and operated in the State towards the target of

⁶⁰ CARB, California Air Resources Board Approves Advanced Clean Car Rules, January 27, 2012.

100 percent of the fleet transitioning to zero-emission vehicles by 2045 everywhere feasible and for all drayage trucks to be zero emission by 2035; and (3) strategies, in coordination with other State agencies, the EPA and local air districts, to achieve 100 percent zero-emission from off-road vehicles and equipment operations in the State by 2035. Executive Order N-79-20 called for the development of a Zero-Emissions Vehicle Market Development Strategy, which was released February 2021, to be updated every 3 years, that ensures coordination and implementation of the Executive Order and outlines actions to support new and used ZEV markets. In addition, the Executive Order specifies identification of near-term actions, and investment strategies, to improve clean transportation, sustainable freight, and transit options; and calls for development of strategies, recommendations, and actions by July 15, 2021, to manage and expedite the responsible closure and remediation of former oil extraction sites as the State transitions to a carbon-neutral economy.

(f) Water

GHG emissions associated with water supply, treatment, and distribution and wastewater are classified as indirect emissions associated with the generation of electricity for these purposes. Wastewater may also have direct emissions of GHGs, depending on the type of wastewater treatment system. Regulations that require the reduction of water consumption through increased water efficiency would subsequently result in GHG emissions reductions.

(i) SB X7-7

SB X7-7, or the Water Conservation Act of 2009, requires that all water suppliers increase their water use efficiency with an overall goal of reducing per-capita urban water use by 20 percent by December 31, 2020. Each urban water supplier shall develop water use targets to meet this goal.

(ii) Executive Order B-29-15

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

(g) Solid Waste

In regard to solid waste and GHG emissions, CO₂ and CH₄ are generated by the disposal of solid waste into landfills and the degradation of organic materials (green and food waste). Regulations that require the reduction of solid waste disposal into landfills would subsequently result in GHG emissions reductions.

(i) AB 939, AB 341, and AB 1826

In 1989, AB 939, known as the Integrated Waste Management Act,⁶¹ 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 percent by 1995 and 50 percent by the year 2000.

AB 341 (Chesbro) 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 percent of solid waste generated be source-reduced, recycled, or composted by the year 2020, and annually thereafter.⁶² 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 it believes would assist the State in reaching the 75 percent goal by 2020. AB 1826 (Chesbro) requires businesses to recycle their organic waste (e.g., food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed in with food waste) depending on the amount of waste they generate per week.⁶³ This law also requires local jurisdictions across the State to implement an organic waste recycling program to divert organic waste generated by businesses, including multifamily residential dwellings that consist of five or more units. The minimum threshold of organic waste generation by businesses decreases over time, which means an increasingly greater proportion of the commercial sector will be required to comply.

*(h) Other State Actions**(i) SB 97*

SB 97 (Dutton) directed the Governor's Office of Planning and Research (OPR) to develop guidelines under CEQA for the mitigation of GHG emissions.⁶⁴ In 2008, OPR issued a technical advisory as interim guidance regarding the analysis of GHG emissions

⁶¹ California PRC Sections 40000 et seq.

⁶² Assembly Bill 341, Chesbro, Solid waste: diversion, approved October 5, 2011.

⁶³ Assembly Bill 1826, Chesbro, Solid waste: organic waste, approved September 28, 2014.

⁶⁴ Senate Bill 97, Dutton, CEQA; greenhouse gas emissions, approved August 24, 2007.

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.⁶⁵ 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. The CNRA adopted the recommended amendments to the CEQA Guidelines in December 2009, which became effective in March 2010.

Under the amended CEQA Guidelines, a lead agency has the discretion to determine whether to use a quantitative or qualitative analysis or apply performance standards to determine the significance of GHG emissions resulting from a particular project.⁶⁶ The CEQA Guidelines require a lead agency to consider 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. The CEQA Guidelines also allow a lead agency to consider feasible means of mitigating the significant effects of GHG emissions, including reductions in emissions through the implementation of project features or off-site measures. The adopted amendments do not establish a GHG emission threshold, instead allowing a lead agency to develop, adopt, and apply its own thresholds of significance or those developed by other agencies or experts. The CNRA also acknowledges that a lead agency may consider compliance with regulations or requirements implementing AB 32 in determining the significance of a project's GHG emissions.⁶⁷

With respect to GHG emissions, 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. This section of the CEQA Guidelines also notes that an agency may identify emissions by either selecting a "model or methodology" to quantify the emissions or by relying on "qualitative analysis or performance based standards." CEQA Guidelines Section 15064.4(b) states that the lead agency should consider the following when assessing the significance of impacts from GHG emissions on the environment: (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; and (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.

⁶⁵ Governor's Office of Planning and Research (OPR), Technical Advisory—CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act (CEQA) Review, June 19, 2008.

⁶⁶ 14 CCR 15000 et seq.

⁶⁷ CNRA, Final Statement of Reasons for Regulatory Action: Amendments to the State CEQA Guidelines Addressing Analysis and Mitigation of Greenhouse Gas Emissions Pursuant to SB 97, December 2009.

(3) Regional

(a) SCAQMD

Air districts have primary authority under state law for “control of air pollution from all sources, other than emissions from motor vehicles.”⁶⁸ The term air contaminant or “air pollutant” is defined extremely broadly, to mean any discharge, release, or other propagation into the atmosphere and includes, but is not limited to, soot, carbon, fumes, gases, particulate matter, etc. GHGs and other global warming pollutants, such as black carbon, would be included in this definition. The U.S. Supreme Court held in *Massachusetts v. EPA* (2009)⁶⁹ that GHGs were clearly within the Federal Clean Air Act’s broad definition of air pollutants. Therefore, air districts have the authority to regulate global warming pollutants primarily from non-vehicular sources; while, pursuant to AB 32, CARB has authority over a wide range of sources, including vehicular sources.

The Project Site is located in the South Coast Air Basin, which consists of Orange County, Los Angeles County (excluding the Antelope Valley portion), and the western, non-desert portions of San Bernardino and Riverside Counties, in addition to the San Geronio Pass area in Riverside County. The SCAQMD is responsible for air quality planning in South Coast Air Basin and developing rules and regulations to bring the area into attainment of the ambient air quality standards. This is accomplished through air quality monitoring, evaluation, education, implementation of control measures to reduce emissions from stationary sources, permitting and inspection of pollution sources, and enforcement of air quality regulations.

The SCAQMD adopted a “Policy on Global Warming and Stratospheric Ozone Depletion” on April 6, 1990. The policy commits the SCAQMD to consider global impacts in rulemaking and in drafting revisions to the Air Quality Management Plan. Adopted goals include the following:⁷⁰

- Phase out the use and corresponding emissions of chlorofluorocarbons, methyl chloroform (1,1,1-trichloroethane or TCA), carbon tetrachloride, and halons by December 1995.
- Phase out the large quantity use and corresponding emissions of hydrochlorofluorocarbons by the year 2000.
- Develop recycling regulations for hydrochlorofluorocarbons (e.g., SCAQMD Rules 1411 and 1415).

⁶⁸ Health and Safety Code Section 40000.

⁶⁹ U.S. Supreme Court held in *Massachusetts v. EPA* (2009) 549 U.S. 497.

⁷⁰ South Coast Air Quality Management District (SCAQMD), CEQA Air Quality Handbook, April 1993, page 3-26, April 1993.

(b) SCAG RTP/SCS

As noted above, California’s 18 MPOs have been tasked with creating SCSs in an effort to reduce the Region’s vehicle miles traveled (VMT) in order to help meet AB 32 targets through integrated transportation, land use, housing, and environmental planning. Pursuant to SB 375, CARB set per-capita GHG emissions reduction targets from passenger vehicles for each of the State’s 18 MPOs. For SCAG, the State’s initial mandated reductions were set at 8 percent by 2020 and 13 percent by 2035. In March 2018, CARB updated the SB 375 targets for SCAG to require 8 percent reduction by 2020 and a 19 percent reduction by 2035 in per-capita passenger vehicle GHG emissions.⁷¹

Pursuant to Government Code Section 65080(b)(2)(B), the SCS must “set forth forecasted development pattern for the region which when integrated with the transportation network, and other transportation measures and policies, will reduce the GHG emissions from automobiles and light trucks to achieve the GHG reduction targets.” To that end, SCAG has developed Connect SoCal, the 2020–2045 RTP/SCS, which complies with CARB’s updated emissions reduction targets and meets the requirements of SB 375 by achieving per-capita GHG emissions reductions relative to 2005 of 8 percent by 2020 and 19 percent by 2035. In addition, the plan anticipates a 25.7 percent decrease in time spent in traffic delay per capita and a 5 percent decrease in daily miles driven per capita from 2016 to 2045. The 2020–2045 RTP/SCS is a long-range visioning plan that balances future mobility and housing needs with economic, environmental, and public health goals, and charts a path toward a more mobile, sustainable and prosperous Region by making connections between transportation networks, between planning strategies and between the people whose collaboration can improve the quality of life for Southern Californians. Connect SoCal embodies a collective vision for the region’s future and is developed with input from local governments, county transportation commissions, tribal governments, non-profit organizations, businesses and local stakeholders within the Counties of Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura. The following are the 2020-2045 RTP/SCS goals:

1. Encourage regional economic prosperity and global competitiveness;
2. Improve mobility, accessibility, reliability, and travel safety for people and goods;
3. Enhance the preservation, security, and resilience of the regional transportation system;
4. Increase person and goods movement and travel choices within the transportation system;
5. Reduce GHG emissions and improve air quality;

⁷¹ CARB, SB 375 Regional Greenhouse Gas Emissions Reduction Targets, 2018.

6. Support healthy and equitable communities;
7. Adapt to a changing climate and support an integrated regional development pattern and transportation network;
8. Leverage new transportation technologies and data-driven solutions that result in more efficient travel;
9. Encourage development of diverse housing types in areas that are supported by multiple transportation options;
10. Promote conservation of natural and agricultural lands and restoration of habitats.

On September 3, 2020, the Regional Council approved of the 2020–2045 RTP/SCS in its entirety.⁷²

(4) Local

(a) *City of Los Angeles Green Building Code*

On December 15, 2010, the Los Angeles City Council approved Ordinance No. 181480, which amended Chapter IX of the Los Angeles Municipal Code (LAMC), referred to as the Los Angeles Green Building Code, by adding a new Article 9 (Los Angeles Green Building Code) to incorporate various provisions of the 2010 CALGreen Code. On December 20, 2016, the Los Angeles City Council approved Ordinance No. 184,692, which further amended Chapter IX of the LAMC, by amending certain provisions of Article 9 to reflect local administrative changes and incorporating by reference portions of the 2016 CALGreen Code. On December 18, 2019, the Los Angeles City Council approved Ordinance No. 186488, which amended Chapter IX, Article 9 of the LAMC to incorporate provisions of the 2019 CALGreen Code. Projects filing building permit applications on or after January 1, 2020, must comply with the provisions of the Los Angeles Green Building Code. The City of Los Angeles Green Building Code has many mandatory and voluntary measures that would result in reductions of GHG emissions. Among the mandatory measures for nonresidential uses are the installation of EVSE; requiring 25 percent of hardscape be shaded or composed of alternatives that reduce heat (such as open-grid pavement); meeting the applicable energy efficiency requirements of Title 24, Part 6 of the California Energy Code, requiring each building to reduce overall potable water use by 20 percent; and compliance with Section 66.32 of the LAMC regarding construction and demolition waste diversion requirements.

⁷² Southern California Association of Governments (SCAG), The 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy of the Southern California Association of Governments, Connect SoCal, adopted September 3, 2020.

(b) Sustainable City pLAN/L.A.'s Green New Deal

On April 8, 2015, Mayor Eric Garcetti released the Sustainable City pLAN, a program of actions designed to meet short-term (2017) and long-term (2025 and 2035) targets in 14 categories designed to advance economic, environmental, and equity objectives.⁷³ In 2019, the City released L.A.'s Green New Deal, which updated and superseded the 2015 Sustainable City pLAN. Rather than an adopted plan, L.A.'s Green New Deal is a mayoral initiative that consists of a program of actions designed to create sustainability-based performance targets through 2050 that advance economic, environmental, and equity objectives. L.A.'s Green New Deal is guided by four key principles: (1) a commitment to uphold the Paris Climate Agreement; (2) a promise to deliver environmental justice and equity through an inclusive green economy; (3) a plan to ensure every Angeleno has the ability to join the green economy by creating pipelines to good paying, green jobs; and (4) a determination to lead by example within City government, showing the world what an urban Green New Deal looks like in practice.⁷⁴ While not a plan adopted solely to reduce GHG emissions, within L.A.'s Green New Deal (Sustainable City pLAN 2019), climate mitigation is one of eight explicit benefits that help define its strategies and goals. These include reducing GHG emissions through near-term outcomes:

- Reduce potable water use per capita by 22.5 percent by 2025; 25 percent by 2035; and maintain or reduce 2035 per capita water use through 2050.
- Reduce building energy use per square feet for all building types 22 percent by 2025; 34 percent by 2035; and 44 percent by 2050 (from a baseline of 68 million British thermal units/square foot in 2015).
- All new buildings will be net zero carbon by 2030, and 100 percent of buildings will be net zero carbon by 2050.
- Increase cumulative new housing unit construction to 150,000 by 2025; and 275,000 units by 2035.
- Ensure 57 percent of new housing units are built within 1,500 feet of transit by 2025; and 75 percent by 2035.
- Increase the percentage of all trips made by walking, biking, micro-mobility/matched rides or transit to at least 35 percent by 2025, 50 percent by 2035, and maintain at least 50 percent by 2050.

⁷³ City of Los Angeles, Sustainable City pLAN, April 8, 2015.

⁷⁴ City of Los Angeles, L.A.'s Green New Deal, 2019.

- Reduce VMT per capita by at least 13 percent by 2025; 39 percent by 2035; and 45 percent by 2050.
- Increase the percentage of electric and zero emission vehicles in the city to 25 percent by 2025; 80 percent by 2035; and 100 percent by 2050.
- Increase landfill diversion rate to 90 percent by 2025; 95 percent by 2035 and 100 percent by 2050.
- Reduce municipal solid waste generation per capita by at least 15 percent by 2030, including phasing out single-use plastics by 2028 (from a baseline of 17.85 lbs. of waste generated per capita per day in 2011).
- Eliminate organic waste going to landfill by 2028.
- Reduce urban/rural temperature differential by at least 1.7 degrees by 2025; and 3 degrees by 2035.
- Ensure proportion of Angelenos living within 0.5 miles of a park or open space is at least 65 percent by 2025; 75 percent by 2035; and 100 percent by 2050.

(c) *Transportation Assessment Guidelines*

The City of Los Angeles Department of Transportation has developed the City Transportation Assessment Guidelines (July 2019) to provide the public, private consultants, and City staff with standards, guidelines, objectives, and criteria to be used in the preparation of a transportation assessment. The Transportation Assessment Guidelines establish the reduction of vehicle trips and VMT as the threshold for determining transportation impacts and thus is an implementing mechanism of the City's strategy to reduce land use transportation-related GHG emissions consistent with AB 32, SB 32, and SB 375.

d) Existing Conditions

(1) U.S. GHG Emissions

Per the EPA's Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2017, total U.S. GHG emissions were approximately 6,457 MMT CO₂e in 2017. The largest source of CO₂, and of overall GHG emissions, was fossil-fuel combustion, which accounted for approximately 93.2 percent of CO₂ emissions in 2017 (4,912.0 MMT CO₂e). Relative to the 1990 emissions level, gross U.S. GHG emissions in 2017 were 1.3 percent higher; however, the gross emissions are down from a high of 15.7 percent above the 1990 level that occurred in 2007. U.S. GHG emissions decreased from 2016

to 2017 by 0.5 percent (35.5 MMT CO₂e) and, overall, net emissions in 2017 were 13 percent below 2005 levels.⁷⁵

(2) State of California GHG Emissions

According to California’s 2000–2018 GHG emissions inventory (2020 edition), California emitted 425 MMT CO₂e in 2018, including emissions resulting from out-of-state electrical generation.⁷⁶ Between 2000 and 2018, per-capita GHG emissions in California have dropped from a peak of 14.1 MT per person in 2001 to 10.7 MT per person in 2018, representing a 24 percent decrease. In addition, total GHG emissions in 2018 were approximately 1 MMT CO₂e higher than 2017 emissions.⁷⁷ 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 (as defined in CARB’s 2008 Scoping Plan) and their relative contributions in 2018 are presented in **Table IV.F-1**.

**TABLE IV.F-1
GREENHOUSE GAS SOURCES IN CALIFORNIA**

Source Category	Annual GHG Emissions (MMT CO ₂ e) ¹	Percent of Total ¹
Transportation	169.5	40%
Industrial	89.2	21%
Electric power ²	63.1	15%
Commercial and residential	41.4	10%
Agriculture	32.6	8%
High global-warming potential substances	20.5	5%
Recycling and waste	9.1	2%
Total	425.3	100%

SOURCE: CARB, California 2000–2018 Greenhouse Gas Emission Inventory – 2020 Edition.

NOTES:

¹ Totals may not sum due to rounding.

² Includes emissions associated with imported electricity.

⁷⁵ USEPA, Inventory of U.S. Greenhouse Gas Emissions and Sinks 1990–2017, April 11, 2019.

⁷⁶ CARB, California 2000–2018 Greenhouse Gas Emission Inventory – 2020 Edition,” accessed October 2020.

⁷⁷ CARB, California 2000–2018 Greenhouse Gas Emission Inventory – 2020 Edition,” accessed October 2020.

(3) GHG Emissions from Existing Uses at the Project Site

Pollutant emissions associated with operation of the existing baseline were quantified using the California Emissions Estimator Model (CalEEMod) Version 2016.3.2. Existing uses would generate GHG emissions from area sources (landscape maintenance equipment), energy sources (electrical generation and natural gas combustion), mobile sources (vehicular traffic), water supply, and solid waste. For existing land uses, natural gas and electricity information provided by Kaiser Permanente for existing medical office buildings (MOBs) was averaged on a per-square-foot basis and applied to the existing MOBs. For the existing apartments and parking areas, CalEEMod default assumptions for energy sources for these types of uses were used.

The existing baseline uses in year 2017 include operation of commercial and residential structures totaling approximately 15,113 square feet located at Site 1; an existing 79,356-square-foot MOB at 1505 North Edgemont Street located on Site 3; an existing 120,557-square-foot MOB at 1526 North Edgemont Street located on Site 4; a 19,199-square-foot MOB space located at Site 5; and associated parking. GHG emissions from existing baseline uses at the Project sites are summarized in **Table IV.F-2**. Complete details of the emissions calculations are provided in Appendix B-2.

**TABLE IV.F-2
EXISTING OPERATIONAL GREENHOUSE GAS EMISSIONS – LAND USES AT THE BUILDING SITES**

Emissions Source	MT CO₂/year	MT CH₄/year	MT N₂O/year	MT CO₂e/year
Existing Baseline				
Area	0.04	<0.01	0.00	0.05
Energy	2,524.85	0.07	0.02	2,533.81
Mobile	9,108.31	0.60	0.00	9,123.27
Solid waste	425.89	25.17	0.00	1,055.12
Water supply and wastewater	12.44	0.07	<0.01	14.74
Total	12,071.54	25.91	0.03	12,726.99

NOTES: See Appendix B-2 for detailed results.

Totals may not sum due to rounding. Values in parentheses represent negative numbers.

MT = metric tons; CO₂ = carbon dioxide; CH₄ = methane; N₂O = nitrous oxide; CO₂e = carbon dioxide equivalent.

No stationary sources were modeled for the existing uses to be demolished.

3. Project Impacts

a) Thresholds of Significance

In accordance with the State CEQA Guidelines Appendix G (Appendix G Thresholds), the Project would have a significant impact related to GHG emissions if it would:

Threshold (a): Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or

Threshold (b): Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

This analysis relies on the Appendix G Thresholds. The 2006 L.A. CEQA Thresholds Guide does not identify any criteria to evaluate GHG emissions impacts. State CEQA Guidelines Section 15064.4 recommends that lead agencies quantify GHG emissions of projects and consider other qualitative factors that may be used in the determination of significance:

A lead agency should consider the following factors, among others, when assessing the significance of GHG emissions on the environment:

- a. The extent to which the project may increase or reduce GHG emissions as compared to the existing environmental setting;
- b. Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project; and
- c. 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 (see, e.g., Section 15183.5(b)). Such requirements must be adopted by the relevant public agency through a public review process and must reduce or mitigate the project's incremental contribution of GHG emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project.

CEQA Guidelines Section 15064.4 does not establish a threshold of significance for GHG impacts. Per CEQA Guidelines Section 15064.7(c), lead agencies have the discretion to establish significance thresholds for their respective jurisdictions, and in establishing those thresholds, a lead agency may appropriately look to thresholds developed by other

public agencies, or suggested by other experts, such as the California Air Pollution Control Officers Association or SCAQMD, as long as any threshold chosen is supported by substantial evidence. The CEQA Guidelines amendments also clarify that the effects of GHG emissions are cumulative.

Per CEQA Guidelines Section 15064(h)(3), a project's incremental contribution to a cumulative impact can be found not cumulatively considerable if the project will comply with an approved plan or mitigation program that provides specific requirements that will avoid or substantially lessen the cumulative problem within the geographic area of the project.⁷⁸ To qualify, such a plan or program must be specified in law or adopted by the public agency with jurisdiction over the affected resources through a public review process to implement, interpret, or make specific the law enforced or administered by the public agency.⁷⁹ Examples of such programs include a "water quality control plan, air quality attainment or maintenance plan, integrated waste management plan, habitat conservation plan, natural community conservation plans [and] plans or regulations for the reduction of greenhouse gas emissions."⁸⁰ Put another way, CEQA Guidelines Section 15064(h)(3) allows a lead agency to make a finding of non-significance for GHG emissions if a project complies with adopted programs, plans, policies and/or other regulatory strategies to reduce GHG emissions.

In the absence of any applicable adopted numeric threshold, the significance of the Project's GHG emissions is evaluated consistent with CEQA Guidelines Section 15064.4(b)(2) by considering whether the Project complies with applicable plans, policies, regulations and requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions. For this Project, as a land use development project, the most directly applicable plans to reduce GHG emissions are the following:

- CARB Climate Change Scoping Plan, AB 32, Executive Order S-3-05, SB 32, the Los Angeles Green Building Code, and other laws and regulations
- SCAG's 2020-2045 RTP/SCS
- L.A.'s Green New Deal

In October 2008, SCAQMD proposed recommended numeric CEQA significance thresholds for GHG emissions for lead agencies to use in assessing GHG impacts of residential and commercial development projects as presented in its Draft Guidance

⁷⁸ 14 CCR Section 15064(h)(3).

⁷⁹ 14 CCR Section 15064(h)(3).

⁸⁰ 14 CCR Section 15064(h)(3).

Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold.⁸¹ This guidance document, which builds on the previous guidance prepared by the California Air Pollution Control Officers Association, explored various approaches for establishing a significance threshold for GHG emissions. The draft interim CEQA thresholds guidance document was not adopted or approved by the Governing Board. However, in December 2008, the SCAQMD adopted an interim 10,000 MT CO_{2e} per-year screening level threshold for stationary source/industrial projects for which the SCAQMD is the lead agency.⁸² This SCAQMD interim GHG significance threshold is not applicable to the Project since the Project is a hospital project, and the City is the lead agency.

b) Methodology

Amendments to the CEQA Guidelines were adopted to assist lead agencies in determining the significance of the impacts of GHG emissions. Consistent with existing CEQA practice, CEQA Guidelines Section 15064.4 gives lead agencies the discretion to determine whether to assess the significance of GHG emissions quantitatively or qualitatively. This section recommends certain factors be considered that may be used in the determination of significance (i.e., extent to which the project may increase or reduce GHG emissions compared to the existing environment; whether the project exceeds an applicable significance threshold; and 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 GHGs). The CNRA has also clarified that the GHG related amendments to the CEQA Guidelines focus on the effects of GHG emissions as cumulative impacts, and that the significance of GHG emissions should, therefore, be analyzed in the context of CEQA's requirements for analyzing cumulative impacts.⁸³

The City has not adopted a numerical significance threshold for assessing impacts related to GHG emissions and has not formally adopted a local plan for reducing GHG emissions. Similarly, SCAQMD, OPR, CARB, California Air Pollution Control Officers Association, or any other State or regional agency has not adopted a numerical significance threshold for assessing GHG emissions that is applicable to the Project. Since there is no applicable adopted or accepted numerical threshold of significance for GHG emissions, the methodology for evaluating the Project's impacts related to GHG emissions focuses on its consistency with statewide, regional, and local plans adopted for the purpose of reducing and/or mitigating GHG emissions. This evaluation of consistency with such plans is the basis for determining the significance of the Project's GHG-related impacts on the environment.

⁸¹ SCAQMD, Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold, October 2008.

⁸² See SCAQMD Resolution No. 08-35, December 5, 2008.

⁸³ See, generally, CNRA, Final Statement of Reasons for Regulatory Action, pp. 11–13, 14, and 16, December 2009; see also Letter from C. Bryant, Director of the Office of Planning and Research, to M. Chrisman, Secretary for Natural Resources, April 13, 2009.

The analysis also calculates the amount of GHG emissions that would be attributable to the Project using recommended air quality models, as described below. The purpose of quantifying the Project's GHG emissions is to satisfy CEQA Guidelines Section 15064.4(a), which calls for a good-faith effort to describe and calculate emissions. The estimated emissions inventory is also used to determine if there would be a reduction in the Project's incremental contribution of GHG emissions as a result of compliance with regulations and requirements adopted to implement plans for the reduction or mitigation of GHG emissions.

(1) Consistency with GHG Reduction Plans and Regulations

OPR encourages lead agencies to make use of programmatic mitigation plans and programs from which to tier when they perform individual project analyses. Although the City does not have a programmatic mitigation plan to tier from, such as a GHG emissions reduction plan, the City has released and adopted a number of plans and regulations to help reduce GHG emissions, including L.A.'s Green New Deal and Los Angeles Green Building Code, which encourage and require applicable projects to implement energy efficiency measures. On a statewide level, the Scoping Plan⁸⁴ builds on laws and regulations to achieve AB 32, SB 32, and Executive Order S-3-05 targets. On a regional level, SCAG's 2020–2045 RTP/SCS contains measures to achieve VMT reductions required under SB 375. Thus, if the Project complies with these plans, policies, regulations, and requirements, the Project would result in a less-than-significant impact because it would be consistent with the overarching state, regional, and local plans for GHG reduction.

A consistency analysis is provided below and describes the Project's compliance with the Climate Change Scoping Plan, AB 32, Executive Order S-3-05, SB 32, other laws and regulations that reduce GHGs, the regional 2020-2045 RTP/SCS, and L.A.'s Green New Deal.

(2) Quantification of Emissions

In view of the above considerations, this Draft EIR also quantifies the Project's total annual GHG emissions for informational purposes, taking into account the GHG emission reduction features that would be incorporated into the Project's design (described below).

This Draft EIR also compares the Project's annual GHG emissions to a "Project without Reduction Features" scenario, as defined by CARB's most updated projections for AB/SB 32.⁸⁵ Since this comparison is intended to mirror the concepts used in CARB's Scoping Plan,

⁸⁴ Unless otherwise specified, any discussion of the "Scoping Plan" in the impact analysis refers to the Scoping Plan approved by CARB in 2008 and the subsequent updates in 2014 and 2017.

⁸⁵ The comparison to a so-called business-as-usual scenario is not used as a threshold of significance, but is used to provide information and a quantitative metric to measure the Project's GHG emissions and level of reductions from project design features and characteristics. See *Center for Biological Diversity v. California Department of Fish and Wildlife* (2015) 62 Cal.4th 204. While the California Supreme Court approved the methodology analyzing the significance of the project's GHG emissions

the GHG emissions for the Project without Reduction Features Scenario is evaluated based on the specific and defined circumstances that CARB relied on when it projected the State's GHG emissions in the absence of GHG reduction measures in the First Update to the Climate Change Scoping Plan. This comparison is included to determine if there would be a reduction in the Project's incremental contribution of GHG emissions as a result of compliance with regulations and requirements adopted to implement plans for the reduction or mitigation of GHG emissions.

(3) Project GHG Emissions

The California Climate Action Registry General Reporting Protocol (General Reporting Protocol) provides basic procedures and guidelines for calculating and reporting GHG emissions from a number of general and industry-specific activities.⁸⁶ The General Reporting Protocol is based on the "Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard" developed by the World Business Council for Sustainable Development and the World Resources Institute through "a multi-stakeholder effort to develop a standardized approach to the voluntary reporting of GHG emissions."⁸⁷ Although no numerical thresholds of significance have been developed, and no specific protocols are available for land use projects, the General Reporting Protocol provides a basic framework for calculating and reporting GHG emissions from the Project. The information provided in this section is consistent with the General Reporting Protocol's reporting requirements.

The General Reporting Protocol recommends the separation of GHG emissions into three categories that reflect different aspects of ownership or control over emissions. They include the following:

- Scope 1: Direct, on-site combustion of fossil fuels (e.g., natural gas, propane, gasoline, and diesel)
- Scope 2: Indirect, off-site emissions associated with purchased electricity or purchased steam
- Scope 3: Indirect emissions associated with other emissions sources, such as third-party vehicles and embodied energy (e.g., energy used to convey, treat, and distribute water and wastewater)⁸⁸

in terms of reductions from projected business-as-usual emissions consistent with AB 32's statewide reductions mandate, it held the GHG analysis lacked supporting substantial evidence and a cogent explanation correlating the project-specific reductions to AB 32's mandated state-wide reductions so as to demonstrate consistency with the latter's goals under the approved methodology.

⁸⁶ California Climate Action Registry, General Reporting Protocol Version 3.1, January 2009.

⁸⁷ California Climate Action Registry, General Reporting Protocol Version 3.1, January 2009.

⁸⁸ Embodied energy is a scientific term that refers to the quantity of energy required to manufacture and supply to the point of use a product, material, or service.

The General Reporting Protocol provides a range of basic calculations methods. However, the General Reporting Protocol calculations are typically designed for existing buildings or facilities. These retrospective calculation methods are not directly applicable to planning and development situations where buildings do not yet exist.

CARB recommends consideration of indirect emissions to provide a more complete picture of the GHG footprint of a facility. For example, CARB has proposed requiring the calculation of direct and indirect GHG emissions as part of the AB 32 reporting requirements. Additionally, OPR has noted that lead agencies “should make a good-faith effort, based on available information, to calculate, model, or estimate... GHG emissions from a project, including the emissions associated with vehicular traffic, energy consumption, water usage and construction activities.”⁸⁹ Therefore, direct and indirect emissions have been calculated for the Project.

A fundamental difficulty in the analysis of GHG emissions is the global nature of the existing and cumulative future conditions. Changes in GHG emissions can be difficult to attribute to a particular planning program or project because the planning effort or project may cause a shift in the locale for some type of GHG emissions, rather than causing “new” GHG emissions. As a result, there is a lack of clarity as to whether a project’s GHG emissions represent a net global increase, reduction, or no change to GHGs that would exist if the project were not implemented.

GHG emissions are estimated using CalEEMod, which is a statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and GHG emissions associated with both construction and operations from a variety of land use projects. CalEEMod was developed in collaboration with the air districts of California. Data (e.g., emission factors, trip lengths, meteorology, source inventory) have been provided by the various California air districts to account for local requirements and conditions. The model is considered to be an accurate and comprehensive tool for quantifying air quality and GHG impacts from land use projects throughout California.

(a) *Construction GHG Emissions*

Emissions from Project construction activities were estimated using CalEEMod Version 2016.3.2. Construction of the Project would result in GHG emissions primarily associated with use of off-road construction equipment, on-road haul and vendor (material delivery) trucks, and worker vehicles. The calculations of the emissions generated during Project construction activities reflect the types and quantities of construction equipment that would be used to remove the existing structures and surface parking lots, excavate and

⁸⁹ OPR, Technical Advisory—CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act (CEQA) Review, June 19, 2008.

grade the building sites, and construct the proposed buildings and related improvements. In accordance with the SCAQMD's guidance, GHG emissions from construction were amortized (i.e., averaged) over the lifetime of the Project. SCAQMD defines the lifetime of a project as 30 years.⁹⁰ Therefore, in accordance with SCAQMD's guidance, total construction GHG emissions were divided by 30 to determine an annual construction emissions estimate and to ensure the construction emissions are evaluated in a quantitative sense with operations. All details for construction criteria air pollutants discussed in Section IV.B, Air Quality, of this Draft EIR are also applicable for the estimation of construction-related GHG emissions. As such, see Section IV.B for a discussion of construction emissions calculation methodology and assumptions.

(b) Operational GHG Emissions

Operation of the Project would result in GHG emissions from area sources (landscape maintenance equipment), energy sources (electrical generation and natural gas combustion), mobile sources (vehicular traffic), water supply, solid waste, and stationary sources (such as diesel emergency generators). CalEEMod was used to calculate the potential GHG emissions generated by operation of the Project. These sources of GHG emissions are detailed below.

(i) Vehicular Traffic

The Project would generate GHG emissions through the vehicular traffic generated by the Project. Daily vehicle trips associated with the existing land uses to be demolished were subtracted from the Project-generated daily trips to determine the maximum net daily trips generated by operation of the Project. On-road vehicle GHG emissions were quantified based on the estimated annual VMT for the Project and existing traffic, which is derived using CalEEMod default trip lengths and based on the Project and existing land use trip rates from the Transportation Impact Study (TIS) prepared for the Project (see Appendix L-1).⁹¹

Notably, the Project Site is located within a Transit Priority Area and is well-located to facilitate pedestrian activity, bicycle use, and public transit use. The Medical Center campus is situated across from the Metro B Line Vermont/Sunset Station, located at the northeast corner of the Vermont Avenue/Sunset Boulevard intersection. The Medical Center campus is also within walking distance of retail, restaurant, and other commercial businesses located along Vermont Avenue, Hollywood Boulevard, and Sunset Boulevard.

⁹⁰ SCAQMD, Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold, October 2008.

⁹¹ Notably, the TIS provided trip generation for only Option A as the worst-case. In order to estimate trip generation for Option B, the applicable trip rates for Option A (including the existing hospital trip rate) were applied to the proposed uses to be developed under Option B in order to estimate daily trip generation.

Further, regional and local public bus transit stops are provided throughout the campus along Vermont Avenue, Hollywood Boulevard, and Sunset Boulevard, as well as along other nearby roadways. Public bus transit service in the Project area is provided by Los Angeles County Metropolitan Transportation Authority (Metro) and the Los Angeles Department of Transportation (DASH and Commuter Express transit services). The Project's proximity to a subway station and a variety of bus stops would facilitate use of transit to access the Project Site. The trip generation provided in the TIS already considers pedestrian and bicycle accessibility and accounted for trip reductions associated with pass-by trips and transit, including a 15 percent transit trip reduction based on the site's proximity to the Metro B Line Vermont/Sunset Station, as well as Vermont Avenue and Sunset Boulevard public bus transit lines.

Regulatory measures related to mobile sources include AB 1493 and related federal standards. AB 1493 required that CARB establish GHG emission standards for automobiles, light-duty trucks, and other vehicles determined by CARB to be vehicles that are primarily used for noncommercial personal transportation in the State. In addition, NHTSA and EPA have established corporate fuel economy standards and GHG emission standards, respectively, for automobiles and light-, medium-, and heavy-duty vehicles. Implementation of these standards and fleet turnover (replacement of older vehicles with newer ones) would gradually reduce emissions from the Project's motor vehicles. The effectiveness of fuel economy improvements was evaluated by using the CalEEMod emission factors for motor vehicles.

(ii) Area Sources

In addition to estimating mobile source emissions, CalEEMod was also used to estimate GHG emissions from the Project's area sources, which include gasoline-powered landscaping equipment. CalEEMod default assumptions for area sources were included in the modeling for all uses.

(iii) Energy Sources

As represented in CalEEMod, energy sources include emissions associated with building electricity and natural gas usage. For existing uses to be demolished, natural gas and electricity information provided by Kaiser Permanente for existing MOBs was averaged on a per-square-foot basis and applied to the MOBs to be demolished. For the apartments and parking areas to be demolished, CalEEMod default assumptions for energy sources were used. Project electricity and natural gas consumption is based on the estimated total annual building load summaries.⁹²

⁹² Ted Engineering Group, Building Load Summary for Kaiser LAMC Campus – Sunset Master Plan, August 2018.

CalEEMod default energy intensity factors (CO₂, CH₄, and N₂O mass emissions per megawatt-hour) for the Los Angeles Department of Water and Power (LADWP) is based on the value for LADWP's energy mix in 2007. The default CO₂ emissions intensity factor was adjusted for the existing scenario and operations of all phases of development. The existing year adjustment was based on 30 percent renewables per the Power Content Label for LADWP for year 2017, whereas adjustments for the Project phases were based on the RPS requirements established under SB 100 of 44 percent in year 2024, 52 percent in year 2027, and 60 percent in year 2030.

(iv) Stationary Sources

The Project would also result in GHG emissions from the intermittent use of four diesel-powered emergency generators for maintenance and testing purposes. Under Option A, the Project would include one 750-kilowatt (kW) emergency generator, two 300-kW emergency generators, and one 1,000-kW emergency generator. Under Option B, the Project would include one 750-kW emergency generator, one 300-kW emergency generator, one 1,500-kW emergency generator, and one 400 kW emergency generator. Each generator would run for testing and maintenance approximately 30 minutes each week with a 4-hour, full load test once every 3 years for a total of 30 hours per year, assuming the triennial test is run in a given year. These operational parameters were incorporated into CalEEMod to estimate stationary source GHG emissions.

(v) Water and Wastewater

Supply, conveyance, treatment, and distribution of water for the Project require the use of electricity, which would result in associated indirect GHG emissions. Similarly, wastewater generated by the Project requires the use of electricity for conveyance and treatment, along with GHG emissions generated during wastewater treatment. Water consumption estimates for both indoor and outdoor water use for the existing uses to be demolished and Project uses were incorporated from the Water Supply Assessment for the Kaiser Permanente Los Angeles Medical Center Project, provided in Appendix G-1 of this Draft EIR.⁹³ Per the CalEEMod default, indoor water demand for each land use was assumed to equal the wastewater to be generated for that use.

(vi) Solid Waste

The Project would generate solid waste and, therefore, result in CO_{2e} emissions associated with landfill off-gassing. CalEEMod default values for solid waste generation

⁹³ LADWP, Water Supply Assessment for the Kaiser Permanente Los Angeles Medical Center Project, November 27, 2018, provided in Appendix G-1 of this Draft EIR.

were adjusted based on the values and factors provided in Section IV.O.3, Utilities – Solid Waste, of this Draft EIR.

(c) *Project without Reduction Features Scenario*

The specific and defined circumstances used by CARB include conditions that existed during the 2009 to 2011 period, which include the vehicle fleet regulations that existed during the 2009 to 2011 period and the 2008 Title 24 Building Energy Efficiency Standards. The Project without Reduction Features scenario incorporated the following assumptions based on Project Site characteristics, project design features, and applicable regulations:

- **Public Transit Accessibility.** The Project's proximity to public transit and the associated 15 percent reduction in trips was not included for the Project without Reduction Features scenario. Since no additional VMT reductions were assumed for the Project, no VMT adjustments were made for the Project without Reduction Features scenario.
- **Water Conservation Features.** The Project's water demand reductions from implementation of conservation measures (including Project Design Features **PDF-HYD-1** through **PDF-HYD-8**) and consistency with current local ordinances, as quantified in LADWP's Water Supply Assessment for the Kaiser Permanente Los Angeles Medical Center Project, were not included for the Project without Reduction Features scenario.
- **Building Energy Efficiency and Lower Carbon Intensity for Electricity.** The 2008 Title 24 energy usage factors were incorporated to estimate the building energy efficiency for the Project without Reduction Features scenario. Also, under the RPS, LADWP is required to reduce the carbon intensity of their electricity. For the Project without Reduction Features scenario, 20 percent renewables were assumed, pursuant to the requirement of SB X1-2.

The emissions were estimated using the CalEEMod software, and the model inputs were adjusted to account for the specific and defined circumstances described above. The analysis assumes the Project without implementation of GHG reduction characteristics, features, and measures would incorporate the same land uses and building square footage as the proposed Project.

c) **Project Design Features**

As described in Chapter III, Project Description, of this Draft EIR, the Project would be constructed to incorporate environmentally sustainable building features and construction

protocols required by the Los Angeles Green Building Code and CALGreen, which would reduce energy use, water use, waste generation, and associated GHG emissions. Additionally, the proposed buildings would also be designed and constructed to incorporate environmentally sustainable design features equivalent to a minimum Gold certification under the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) Rating System, or other equivalent green building standards. Such LEED features would include energy-efficient structures, a pedestrian- and bicycle-friendly site design, and water conservation measures. LEED standards would be incorporated in order to reduce energy and water usage, and thus, would reduce associated GHG emissions. The Project would incorporate an environmentally sustainable design using green building technologies as identified in the principles for energy efficiency, water conservation, environmentally preferable building materials, and overall waste reduction. Accordingly, the following project design features (PDFs) are proposed to reduce Project-generated GHG emissions.

PDF-GHG-1: The Project will achieve Leadership in Environmental and Energy Design (LEED) Gold or other equivalent green building standards. Key green building and LEED measures are provided below:

- On-site photovoltaic (PV) system will result in renewable energy production that will offset building energy costs between 1 percent and 5 percent.
- Kaiser Permanente will contract for 100 percent of off-site generated power to be green power through the Los Angeles Department of Water and Power's Green Power Program, renewable energy certificates, or carbon offsets.
- Exterior lighting will be automatically controlled via occupancy sensors, photo sensors, and/or timers to illuminate only when required. For indoor lighting, individual lighting control for at least 90 percent of individual occupant spaces with at least 3 lighting levels will be met. Multi-zone control for all shared multi-occupant spaces, separate control of presentation wall lighting, switches or manual controls will be located in the same space with the controlled luminaires.
- Light-emitting diode (LED) lighting shall be used throughout the Project.
- Enhanced refrigerant management will be included in Project operations, including ensuring that no chlorofluorocarbon-based refrigerants will be used and that refrigerants for heating, ventilation, air conditioning and refrigeration will be selected that minimize or eliminate the emission of compounds that contribute to ozone (O₃) depletion and global climate change.

The Project will also implement Project Design Feature **PDF-AQ-4** (enhanced walkability) as discussed in Section IV. B, Air Quality, of this Draft EIR, as well as Project Design Feature **PDF-TRF-2** (Transportation Demand Management) described in Section IV.M, Transportation, which reduce fossil-fueled vehicle trips and associated GHGs. Water conservation measures would also reduce the need for water and wastewater conveyance, which are described in Section IV.H, Hydrology and Water Quality, of this Draft EIR and include Project Design Features **PDF-HYD-1** (high efficiency toilets), **PDF-HYD-2** (no flush urinals), **PDF-HYD-3** (low flow showerheads), **PDF-HYD-4** and **PDF-HYD-5** (efficient domestic water heating systems), and **PDF-HYD-6** through **PDF-HYD-8** (water efficient irrigation and landscaping). Finally, measures that reduce solid waste, including Project Design Features **PDF-SW-1** (construction materials and recycling) and **PDF-SW-2** (reduce, reuse, and recycle solid waste from hospital operations), as described in Section IV.O.3, Service Systems – Solid Waste, of this Draft EIR, also reduce GHGs associated with landfill off-gassing.

d) Analysis of Project Impacts

Threshold (a): *Would the Project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?*

Threshold (b): *Would the Project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?*

(1) Impact Analysis

(a) Consistency with GHG Reduction Plans and Regulations

As described above in the Consistency with GHG Reduction Plans and Policies section, in the absence of any adopted numeric threshold, the significance of the Project's GHG emissions is evaluated consistent with CEQA Guidelines Section 15064.4(b) by considering whether the Project complies with applicable plans, policies, regulations, and requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions. Since the Project is a land use development project, the most directly applicable adopted regulatory plan to reduce GHG emissions is SCAG's 2020–2045 RTP/SCS, which is designed to achieve regional GHG reductions from the land use and transportation sectors as required by SB 375 and California's long-term climate goals.

CEQA Guidelines Section 15183.5(b) specifies that a plan for reduction of GHG emissions should:

1. Quantify GHG emissions, both existing and projected over a specified time period, resulting from activities within a defined geographic area.
2. Establish a level, based on substantial evidence, below which the contribution to GHG emissions from activities covered by the plan would not be cumulatively considerable.
3. Identify and analyze the GHG emissions resulting from specific actions or categories of actions anticipated within the geographic area.
4. Specify measures or a group of measures, including performance standards that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified emissions level.
5. Monitor the plan's progress.
6. Adopt the GHG Reduction Strategy in a public process following environmental review.

The 2020–2045 RTP/SCS is a qualified plan for reduction of GHGs because it meets CEQA Guidelines, Section 15183.5(b) listed above by: (1) quantifying all primary sectors of GHG emissions with the SCAG region; (2) including a per-capita reduction target from automobiles and light trucks of at least 8 percent below 2005 per-capita emissions levels by 2020 and 19 percent below 2005 per-capita emissions levels by 2035, which is designed to achieve regional GHG reductions from the land use and transportation sectors as required by SB 375 and is consistent with the recommendations in the AB 32 Scoping Plan for municipalities to support the overall AB 32 reduction targets; (3) analyzing community emissions for the SCAG region as a whole and including predicted growth and forecasted development pattern expected by 2045; (4) including specific measures to achieve the overall reduction targets; (5) including periodic monitoring of plan progress; and (6) submitting the 2020–2045 RTP/SCS to be adopted in a public process following compliance with CEQA.⁹⁴ The Project is within the SCAG region;

⁹⁴ The SCAG, as lead agency, prepared a Final Program Environmental Impact Report (Final PEIR) (SCH No. 2019011061) for Connect SoCal (the 2020–2045 RTP/SCS) and associated Findings of Fact and a Statement of Overriding Considerations and Mitigation Reporting and Monitoring Program in accordance with CEQA. The Final PEIR serves as a programmatic document that conducts a region-wide assessment of potential significant environmental effects of the Connect SoCal. The Final PEIR was certified by the SCAG Regional Council on May 7, 2020.

therefore, determining if the Project is consistent with the 2020–2045 RTP/SCS (together with implemental local plans) is the applicable plan for addressing impact significance.

Additionally, this analysis also considers consistency with the CARB 2017 Climate Change Scoping Plan, AB 32, Executive Order S-3-05, SB 32, , the Los Angeles Green Building Code, L.A.'s Green New Deal, and other laws and regulations that reduce GHGs.

(i) Consistency with the CARB Climate Change Scoping Plan, AB 32, Executive Order S-3-05, SB 32, the Los Angeles Green Building Code, and Other Laws and Regulations

The Scoping Plan 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. Under the Scoping Plan, 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 builds on a wide array of regulatory requirements that have been promulgated to reduce statewide GHG emissions. While these regulatory requirements are not targeted at specific land use development projects, they would indirectly reduce a development project's GHG emissions. A discussion of these regulatory requirements that would reduce the Project's GHG emissions are provided below. Notably, because GHG regulations continue to expand under California's climate leadership efforts, including most recently the enactment of SB 100 (2018), the discussion below presents a snapshot of these GHG laws and regulations. Since additional GHG reduction laws and regulations are likely to apply, and listed plans and regulations are likely to continue to evolve, the scope of GHG regulations applicable to GHG-emissions related to the Project is anticipated to expand over time and result in lower-than-predicted GHG emissions.

- **SB 100 (California RPS Program).** SB 100 established that 44 percent of the total electricity sold to retail customers in California per year by December 31, 2024, 52 percent by December 31, 2027, and 60 percent 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 percent of the retail sales of electricity to California by December 31, 2045. While this regulation does not directly apply to individual projects, the Project complies with the RPS program since its electricity would be provided by LADWP, which is required to comply with the RPS requirements. Thus, the Project would

be supplied with electricity via renewable sources at increasing rates over time, thereby reducing the Project's electricity-related GHG emissions.

- **Cap-and-Trade Program.** The Climate Change Scoping Plan identifies a Cap-and-Trade Program as a key strategy CARB will employ to help California meet its GHG reduction targets for 2020 and 2030, and ultimately achieve an 80-percent reduction from 1990 levels by 2050. Pursuant to its authority under AB 32, CARB has designed and adopted a California Cap-and-Trade Program to reduce GHG emissions from major sources (deemed "covered entities") by setting a firm cap on Statewide GHG emissions and employing market mechanisms to achieve AB 32's emission reduction mandate of returning to 1990 levels of emissions by 2020. The first phase of the Cap-and-Trade regulation included electricity generated in and imported into California, large combustion sources (i.e., generally those emitting more than 25,000 MT CO₂e per year), and certain industrial sectors. The second phase added providers of transportation fuels (and thus transportation-related GHG emissions) and other combustion fuels (e.g., natural gas, propane) to the Cap-and-Trade Program. The regulation requires that emissions generated by these facilities and combustion of fuels be reduced over time under a declining "cap." The Cap-and-Trade regulation provides a firm cap, ensuring that the 2020 statewide emission limit will not be exceeded. An inherent feature of the Cap-and-Trade Program is that it does not guarantee GHG emissions reductions in any discrete location or by any particular source. Rather, GHG emissions reductions are only guaranteed on an accumulative basis. While the Cap-and-Trade Program does not directly apply to individual projects, the Project would comply with the Program inasmuch as the Project's electricity usage, transportation fuel use, and natural gas use would be covered by the Cap-and-Trade Program, resulting in a reduction of GHG emissions from the Project's energy consumption.
- **AB 1493 (Pavley Regulations).** The State's Pavley Regulations apply to new passenger vehicles from model year 2012 through 2016 (Phase I) and model years 2017–2025 (Phase II). Before these regulations could go into effect, EPA had to grant California a waiver under the federal Clean Air Act, which ordinarily preempts state regulation of motor vehicle emission standards. While this action does not apply to individual projects, future employees and visitors to the Project Site would purchase new vehicles in compliance with this regulation, which would generate reduced emissions of GHGs. However, as previously noted, the vehicle emissions standards beyond model year 2020 may not occur if the Federal SAFE Vehicles Rules and the One National Program on Federal Preemption of State Fuel Economy Standards are upheld by the courts.

- **Advanced Clean Cars Program.** This program combines the control of smog- and soot-causing pollutants and GHG emissions into a single coordinated package. The package includes elements to reduce smog-forming pollution, reduce GHG emissions, promote clean cars (including ZEV and plug-in hybrid EVs), and provide the fuels for clean cars. Although this program does not directly apply to individual projects, the standards would apply to the vehicles purchased by employees and visitors of the Project. Notably, pursuant to the Los Angeles Green Building Code, the Project will be required to include at least 30 percent of the total code required parking spaces be EV spaces, with 10 percent of the total code required parking spaces to have EV chargers installed. As such, the Project would support this regulation. However, as detailed previously, EPA and NHTSA published the SAFE Vehicles Rule, which revokes California’s authority to set its own GHG emissions standards and set ZEV mandates in California. Since California and 22 other states, as well as the District of Columbia and four cities, filed suit against the EPA and a petition for reconsideration of the rule, the effect of the SAFE Rule on the Advanced Clean Cars program is still to be determined pending the ruling of ongoing litigation.
- **Low-Carbon Fuel Standard.** The LCFS calls for a 10-percent reduction in the “carbon intensity” of motor vehicle fuels by 2020, as well as at least an 18-percent reduction by 2030. Although this regulation does not directly apply to individual projects, future employees and visitors to the Project Site would utilize transportation fuels in compliance with this regulation, which would reduce emissions of GHGs.
- **SB 375.** This regulation addresses GHG emissions associated with the transportation sector through regional transportation and sustainability plans. Under SB 375, CARB is required, in consultation with the MPOs, to set regional GHG reduction targets for the passenger vehicle and light-duty truck sector for 2020 and 2035. Although this regulation does not apply to individual projects, projects that are consistent with the smart growth principles and VMT reduction goals in the development plan for the Region (i.e., SCAG’s 2020–2045 RTP/SCS) would not conflict with the GHG reduction targets of SB 375. As described below and in Section IV.I of this EIR, the Project would be consistent with SCAG’s 2020–2045 RTP/SCS and would, therefore, support the regional GHG reduction targets of SB 375. To summarize, the Project is located in a high-quality transit area (HQTA) and focuses employment within a commercial center of the City. As such, the Project would provide employees and visitors with access to public transit and opportunities for walking and biking, which would facilitate a reduction in VMT and related vehicular GHG emissions.

- **SB X7-7.** This regulation requires that all water suppliers increase their water use efficiency with an overall goal of reducing per-capita urban water use by 20 percent by December 31, 2020. Reduction in water consumption directly reduces the energy necessary and the associated GHG emissions to convey, treat, and distribute the water. It also reduces the volume of wastewater and the GHG emissions associated with its conveyance and treatment. As set forth in their 2015 Urban Water Management Plan, the Metropolitan Water District of Southern California will continue investments in water use efficiency measures to help the region achieve the 20-percent per person potable water use reduction by 2020. Although this action does not apply to individual projects, the Project would support the intent of the regulation through the implementation of water conservation features described in Section IV.H, Hydrology and Water Quality, of this Draft EIR.
- **CCR, Title 20.** Title 20 requires manufacturers of appliances to meet state and federal standards for energy and water efficiency and applies to new appliances and lighting that are sold in California. Although this regulation does not apply to individual projects, the Project would comply with this regulation since the Project would install only appliances and lighting that meet the State standards for such equipment.
- **Energy Independence and Security Act of 2007.** Under this act, traditional inefficient incandescent light bulbs were phased out between 2012 and 2014, making way for bulbs that use at least 25 percent less energy for a comparable lumen output. The second part of the law requires that most light bulbs be 60 percent to 70 percent more efficient than the standard incandescent light bulbs by 2020. Many light bulbs already on the market, including light-emitting diodes (LEDs), can meet this requirement today. Although this regulation does not apply to individual projects, the Project would support the intent of the regulation by installing LED lighting in all buildings, pursuant to Project Design Feature **PDF-GHG-1**.

- **SLCP Reduction Strategy and SB 1383.** Implementation of the SLCP Reduction Strategy and SB 1383 require CARB to set statewide 2030 emission reduction targets of 40 percent below 2013 levels for CH₄ and HFCs, and 50 percent below 2013 levels for black carbon. Although this action does not apply to individual projects, the Project would support the intent of this regulation by ensuring that no CFC-based refrigerants will be used and that the refrigerants selected will minimize or eliminate the emission of compounds that contribute to global climate change (per Project Design Feature **PDF-GHG-1**), as well as based on diversion of organic wastes from landfills, which reduces CH₄.
- **AB 939, AB 341, and AB 1826.** These regulations establish solid waste reduction requirements in the State. AB 939 established a diversion goal of 50 percent by the year 2000. AB 341 increased the solid waste diversion goal to 75 percent by the year 2020. AB 1826 requires businesses to recycle their organic waste (i.e., food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed in with food waste) depending on the amount of waste they generate per week. The Project would comply with the diversion requirements inasmuch as it would be served by a solid waste collection and recycling service that yields waste diversion results consistent with State and Citywide recycling targets. Further, the Project would implement organic waste recycling pursuant to the requirements of AB 1826.

In addition, **Table IV.F-3** summarizes the Project's consistency with a few key GHG-reducing laws and regulations that are directly applicable to the Project. These include Title 24, Part 6 (Building Energy Efficiency Standards), Title 24, Part 11 (CALGreen Code), and the Los Angeles Green Building Code.

**TABLE IV.F-3
PROJECT CONSISTENCY WITH OTHER LAWS AND REGULATIONS**

Laws and Regulations	Compliance/Consistency Analysis
<p>CCR, Title 24, Part 6 – Building Energy Efficiency Part 6 of Title 24 specifically established Building Energy Efficiency Standards that are designed to ensure new and existing buildings in California conserve energy.</p>	<p>Compliant. Project buildings would be designed and constructed to incorporate environmentally sustainable design features equivalent to a minimum LEED Gold (Project Design Feature PDF-GHG-1). As part of the LEED Gold certification, the Project would incorporate energy efficiency features, including on-site PV systems; 100 percent of off-site generated power will be from renewables or carbon offset; exterior and interior lighting with will be equipped occupancy sensors and/or timers; and LED lighting would be installed.</p>
<p>CCR, Title 24, Part 11 - CALGreen CALGreen establishes minimum mandatory standards as well as voluntary standards pertaining to the planning and design of sustainable site development, energy efficiency, reducing VMT from fossil fueled vehicles, water conservation, and material conservation.</p>	<p>Compliant. Please see discussion above for Title 24, Part 6. In addition, enhanced refrigerant management (Project Design Feature PDF-GHG-1) would also be included in the Project design. Specific water conservation features would include low-flow/high efficiency toilets, urinals, and showerheads (Project Design Features PDF-HYD-1 through PDF-HYD-3); efficient domestic water heating systems (Project Design Features PDF-HYD-4 and PDF-HYD-5); and water-efficient irrigation and landscaping (Project Design Features PDF-HYD-6 through PDF-HYD-8). Measures that reduce solid waste include Project Design Feature PDF-SW-1 (construction materials and recycling) and Project Design Feature PDF-SW-2 (reduce, reuse, and recycle solid waste from hospital operations). The Project would also implement measures to reduce fossil-fueled vehicle trips and associated GHG emissions, including Project Design Feature PDF-AQ-4 (enhanced walkability), and Project Design Feature PDF-TRF-2 (Transportation Demand Management).</p>
<p>7 Los Angeles Green Building Code Chapter IX, Article 9 of the LAMC incorporates provisions of the 2019 CALGreen Code and establishes minimum mandatory standards as well as voluntary standards pertaining to the planning and design, energy efficiency, water efficiency and conservation, material conservation and resource efficiency, and environmental quality.</p>	<p>Compliant. See the discussion directly above regarding consistency with CALGreen, which would also apply to the Project's consistency with the Los Angeles Green Building Code. Of note, based on the Los Angeles Green Building Code, the Project will be required to include at least 30 percent of the total code required parking spaces to be EV spaces, with 10 percent of the total code required parking spaces to have EV chargers installed. These EV parking requirements exceed the current CALGreen standards.</p>

NOTES: CCR = California Code of Regulations; PDF = Project Design Feature; GHG = greenhouse gas; CARB = California Air Resources Board; LEED = Leadership in Energy and Environmental Design.

As depicted in Table IV.F-3 and detailed in the preceding discussion, the Project would implement project design features and comply with green building measures consistent with applicable laws and regulations to reduce energy use, water usage, waste generation, and VMT, thereby reducing the resulting GHG emissions caused by these activities. As a result, the Project would not conflict with applicable Scoping Plan strategies and regulations to reduce GHG emissions.

Furthermore, the Project would not impede the attainment of the GHG reduction goals for 2030 or 2050 identified in Executive Order S-3-05 and SB 32. As discussed in Section 2, Regulatory Framework, Executive Order 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 percent below 1990 levels by 2050. SB 32 establishes 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 percent below 1990 levels by December 31, 2030. CARB has outlined a number of potential strategies for achieving the 2030 reduction target of 40 percent below 1990 levels, as mandated by SB 32. These potential strategies include using renewable resources for half of the State's electricity by 2030, increasing the fuel economy of vehicles and the number of zero-emission or hybrid vehicles, reducing the rate of growth in VMT, supporting other alternative transportation options, and use of high-efficiency appliances, water heaters, and HVAC systems.⁹⁵ The Project would benefit from Statewide and LADWP efforts towards increasing the portion of electricity provided from renewable resources, pursuant to the compliance schedule established by SB 100. The Project would use achieve the LEED Gold Certification level or equivalent as committed to in Project Design Feature **PDF-GHG -1**. The Project would also benefit from Statewide efforts towards increasing the fuel economy standards of vehicles. The Project would support reducing VMT given its location close to existing transit options.

While there are no established protocols or thresholds of significance for the 2030 and 2050 reduction goals, 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.⁹⁶ 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."⁹⁷

⁹⁵ Energy + Environmental Economics (E3), Summary of the California State Agencies' PATHWAYS Project: Long-Term Greenhouse Gas Reduction Scenarios, April 6, 2015.

⁹⁶ CARB, First Update to the Climate Change Scoping Plan: Building on the Framework, May 2014.

⁹⁷ CARB, First Update to the Climate Change Scoping Plan: Building on the Framework, May 2014.

With regard to the 2050 target for reducing GHG emissions to 80 percent below 1990 levels, the First Update to the Climate Change Scoping Plan states the following:⁹⁸

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 percent 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 Executive Order S-3-05. This is confirmed in the 2017 Scoping Plan, which states:⁹⁹

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.

The 2017 Scoping Plan also outlines strategies to reduce GHG emissions to achieve the 2030 target from sectors that are not directly controlled or influenced by the Project, but nonetheless contribute to Project-related GHG emissions. For instance, the Project itself is not subject to the Cap-and-Trade regulation; however, Project-related emissions would decline pursuant to the regulation as utility providers and transportation fuel producers are subject to renewable energy standards, Cap-and-Trade, and the LCFS. The 2017 Scoping Plan also calls for the doubling of the energy efficiency savings, including utility demand-response flexibility for 10 percent of residential and commercial electric space heating, water heating, air conditioning and refrigeration. While CARB is in the process of expanding the regulatory framework to meet the 2030 reduction target based on the existing laws and strategies in the 2017 Scoping Plan, the Project would be consistent with the applicable strategies and measures in the Scoping Plan, as well as established laws and regulations to reduce GHG emissions, and would not conflict with, and would not impede, the State's trajectory toward the above-described statewide GHG reduction goals for 2030 or 2050.

⁹⁸ CARB, First Update to the Climate Change Scoping Plan: Building on the Framework, May 2014.

⁹⁹ CARB, California's 2017 Climate Change Scoping Plan, November 2017.

(ii) Consistency with the SCAG 2020–2045 RTP/SCS

The SCAG 2020–2045 RTP/SCS is a regional growth management strategy that targets per-capita GHG reduction from passenger vehicles and light trucks in the Southern California Region pursuant to SB 375. In addition to demonstrating the Region’s ability to attain the GHG emission-reduction targets set forth by CARB, the 2020–2045 RTP/SCS outlines a series of actions and strategies for integrating the transportation network with an overall land use pattern that responds to projected growth, housing needs, changing demographics, and transportation demands. Thus, successful implementation of the 2020–2045 RTP/SCS would result in more complete communities with a variety of transportation and housing choices, while reducing automobile use.

The following strategies are intended to be supportive of implementing the 2020–2045 RTP/SCS¹⁰⁰ and reducing GHGs: focus growth near destinations and mobility options; promote diverse housing choices; leverage technology innovations; support implementation of sustainability policies; and promote a green region. The strategies that pertain to residential development and SCAG’s support of local jurisdiction sustainability efforts would not apply to the Project. The Project’s compliance with the remaining applicable strategies is presented below.¹⁰¹

- Focus Growth Near Destinations and Mobility Options.** The Project’s compliance with this strategy of the 2020–2045 RTP/SCS is demonstrated via the Project’s land use characteristics and features that would reduce vehicular trips and VMT. Regarding VMT reduction characteristics, the Project Site is located within an HQTAs as designated by the 2020–2045 RTP/SCS. HQTAs are described as generally walkable transit villages or corridors that are within 0.5 miles of a well-serviced transit stop or a transit corridor with 15-minute or less service frequency during peak commute hours.¹⁰² Local jurisdictions are encouraged to focus housing and employment growth within HQTAs.¹⁰³ The Project would redevelop a major medical center and produce approximately 1,807 new jobs in operation of the Project within the existing Unified Hospital Development Boundary, an important job site for the City of Los Angeles.¹⁰⁴ The Project’s proximity to the Metro B Line Vermont/Sunset Station would increase transit accessibility of jobs and services provided at Kaiser Permanente MOBs. The Project would support the use of the Metro B Line that is integrated with multiple transit systems. Additionally, the Project focuses employment within a commercial center of the City, in proximity

¹⁰⁰ SCAG, Connect SoCal, adopted September 3, 2020.

¹⁰¹ Please refer also to Section IV.I, Land Use and Planning, of this Draft EIR, for additional discussion of the applicable provisions of the 2020–2045 RTP/SCS that apply to the Project.

¹⁰² SCAG, Connect SoCal, adopted September 3, 2020.

¹⁰³ SCAG, Connect SoCal, adopted September 3, 2020.

¹⁰⁴ Employment estimate is described in Section IV.K, Population and Housing, of this Draft EIR.

to the Metro B Line Vermont/Sunset Station. As such, the Project would provide employees and visitors with access to public transit and opportunities for walking and biking, which would facilitate a reduction in VMT and related vehicular GHG emissions. See also the VMT impact evaluation included in Section IV.M, Transportation, of this Draft EIR.

- **Leverage Technology Innovations.** One of the technology innovations identified in the 2020–2045 RTP/SCS that would apply to the Project is the promotion and support of low emission technologies for transportation, such as alternative fueled vehicles to reduce per capita GHG emissions. The Project would support this goal through the compliance with the Los Angeles Green Building Code, which requires that 30 percent of the total code required parking spaces be EV spaces and that 10 percent of the total code required parking spaces have EV chargers already installed to immediately accommodate EVs within the parking areas.
- **Promote a Green Region.** The third applicable strategy within the 2020–2045 RTP/SCS, for individual developments, such as the Project, involves promoting a green region through efforts such as supporting local policies for renewable energy production and promoting more resource efficient development (e.g., reducing energy consumption) to reduce GHG emissions. Targeted sustainable design strategies of the Project, in addition to meeting the requirements of California’s Building Energy Efficiency Standards and CALGreen Code, would include achieving LEED Gold or equivalent green building standards (Project Design Feature **PDF-GHG-1**). As part of the LEED Gold certification, as described in the Project Design Features section above, the Project would incorporate on-site PV systems that would generate a minimum of 1 percent to 5 percent of total building energy and install energy-efficient lighting systems into all buildings. Additionally, the Project would include Project Design Features **PDF-HYD-1** (high efficiency toilets), **PDF-HYD-2** (no flush urinals), **PDF-HYD-3** (low flow showerheads), **PDF-HYD-4** and **PDF-HYD-5** (efficient domestic water heating systems), and **PDF-HYD-6** through **PDF-HYD-8** (water efficient irrigation and landscaping). Incorporation of these measures would reduce electricity (for building energy and water/wastewater conveyance) and, thus, would reduce associated GHG emissions.

Based on the analysis above, the Project would be consistent with the SCAG 2020–2045 RTP/SCS.

(iii) *Consistency with the City of Los Angeles Green New Deal - Sustainable City pLAN*

In addition, the Project would comply with L.A.'s Green New Deal, which is designed to move the City to a carbon neutral future. Several targets would have indirect GHG reduction benefits for the Project, including the following:

- LADWP will supply 55 percent renewable energy by 2025, 80 percent by 2036, and 100 percent by 2045: This is a Citywide goal of increasing proportion of renewable resources in the LADWP energy mix. Since LADWP is the electrical utility for the Project, the increase in renewable energy mix for LADWP would result in reduced GHG emissions associated with the Project's electricity use.
- Source 70 percent of L.A.'s water locally and capture 150,000 acre-feet per year of stormwater by 2035: Although this is a Citywide goal of increasing the proportion of locally sourced water and stormwater capture, the Project would include stormwater infiltration and reuse and would help the City move towards this stormwater capture goal.

Table IV.F-4 provides an overview of the GHG-reduction strategies applicable to the Project, as well as the Project's consistency with the strategies.

**TABLE IV.F-4
PROJECT CONSISTENCY WITH THE TARGETS OF L.A.'S GREEN NEW DEAL**

Target	Project Consistency
<p>Renewable Energy</p> <p>Increase cumulative megawatts (MW) by 2025; 2035; and 2050 of:</p> <ul style="list-style-type: none"> • Local solar to 900-1,500 MW; 1,500-1,800 MW; and 1,950 MW Energy • Energy storage capacity to 1,654-1,750 MW; 3,000 MW; and 4,000 MW <p>Demand response (DR) programs to 234 MW (2025) and 600 MW (2035)</p>	<p>Compliant. As part of the LEED Gold certification, the Project would incorporate renewable energy capabilities into the building design and construction, which would be accomplished through installing on-site PV systems (Project Design Feature PDF-GHG-1).</p>
<p>Local Water</p> <p>Reduce potable water use per capita by 22.5 percent by 2025; and 25 percent by 2035; and maintain or reduce 2035 per capita water use through 2050</p>	<p>Compliant. Project buildings would be designed and constructed to incorporate water conservation features, including: low-flow/ high efficiency toilets, urinals, and showerheads (Project Design Features PDF-HYD-1 through PDF-HYD-3); efficient domestic water heating systems (Project Design Features PDF-HYD-4 and PDF-HYD-5); and water-efficient irrigation and landscaping</p>

TABLE IV.F-4
PROJECT CONSISTENCY WITH THE TARGETS OF L.A.'S GREEN NEW DEAL

Target	Project Consistency
	(Project Design Features PDF-HYD-6 through PDF-HYD-8). Please see also Section IV.O.1, Utilities and Service Systems – Water Supply and Infrastructure, of this Draft EIR, for additional information regarding water demand and reduction measures.
<p>Clean and Healthy Building</p> <p>All new buildings will be net zero carbon by 2030; and 100 percent of buildings will be net zero carbon by 2050</p>	<p>Compliant. The Project would be required to be constructed in compliance with State and local green building standards in effect at the time of building construction, including the City's Green Building Code, Title 24, and other increasingly stringent programs. In addition, as part of the LEED Gold certification, 100 percent of off-site generated power will be from renewables or carbon offset (Project Design Feature PDF-GHG-1).</p>
<p>Reduce building energy use per square foot for all building types 22 percent by 2025; 34 percent by 2035; and 44 percent by 2050</p>	<p>Compliant. The Project would comply with the State's and City's requirements that are designed to reduce GHG emissions over time, including the LA Green Building Code, Title 24, and other increasingly stringent energy conservation programs. The Project buildings would be designed and constructed to incorporate environmentally sustainable design features equivalent to a minimum LEED Gold (Project Design Feature PDF-GHG-1), which will lower the overall site energy use on a per-square foot basis.</p>
<p>Mobility and Public Transit</p> <p>Increase the percentage of all trips made by walking, biking, micro-mobility/matched rides or transit to at least 35 percent by 2025; 50 percent by 2035; and maintain at least 50 percent by 2050</p>	<p>Compliant. The Project Site is located within an HQTAs and is well-located to facilitate pedestrian activity, bicycle use, and public transit use. Regarding transit specifically, the Project's close proximity to a subway station and a variety of bus stops would facilitate use of transit to access the Project Site.</p>
<p>Reduce VMT per capita by at least 13 percent by 2025; 39 percent by 2035; and 45 percent by 2050</p>	<p>Compliant. See discussion directly above, as well as the VMT evaluation in Section IV.M, Transportation, of this Draft EIR.</p>
<p>Zero Emission Vehicles</p> <p>Increase the percentage of electric and zero emission vehicles in the City to 25 percent by 2025; 80 percent by 2035; and 100 percent by 2050</p>	<p>Compliant. The Project would support the use of electric vehicles through the provision of EV parking spaces and charging stations consistent with the LA Green Building Code requirements for Electric Vehicle infrastructure.</p>

TABLE IV.F-4
PROJECT CONSISTENCY WITH THE TARGETS OF L.A.'S GREEN NEW DEAL

Target	Project Consistency
Waste & Resource Recovery	
Increase landfill diversion rate to 90 percent by 2025; 95 percent by 2035; and 100 percent by 2050	Compliant. During both construction and operation, the Project would comply with all State regulations related to solid waste generation, storage, and disposal, including the California Integrated Waste Management Act as amended. Measures incorporated into the Project that reduce solid waste include Project Design Feature PDF-SW-1 (construction materials and recycling) and Project Design Feature PDF-SW-2 (reduce, reuse, and recycle solid waste from hospital operations).
Reduce municipal solid waste generation per capita by at least 15 percent by 2030, including phasing out single-use plastics by 2028	Compliant. See discussion directly above.
Eliminate organic waste going to landfill by 2028	Compliant. See discussion directly above.
Increase proportion of waste products and recyclables productively reused and/or repurposed within L.A. County to at least 25 percent by 2025; and 50 percent by 2035	Compliant. See discussion directly above.
SOURCE: City of Los Angeles, L.A.s Green New Deal – Sustainable City pLAn, 2019. NOTES: PDF = Project Design Feature; EV = electric vehicle; GHG = Greenhouse Gas; HQTAs = High Quality Transit Area; LEED = Leadership in Energy and Environmental Design.	

As shown in Table IV.F-4, the Project would not conflict with any of the GHG targets set forth in L.A.'s Green New Deal. Thus, the Project is consistent with this plan.

(iv) Conclusion

As described above, the Project's GHG emissions (both on- and off-site) are regulated by many GHG reduction mandates. Compliance with these GHG reduction legal requirements is appropriately assumed to occur under CEQA (*Oakland Heritage Alliance v. City of Oakland* (2011) 195 Cal. App. 4th 884, 906; *Center for Biological Diversity v. Department of Fish & Wildlife* (2015) 234 Cal. App. 4th 214, 244–45). **Based on the above considerations, the Project would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions, and the Project's GHG contribution would be less than significant.**

(b) *Quantification of GHG Emissions*

The Project's potential impact with regard to climate change are evaluated in this Draft EIR solely on consistency with the GHG emission reduction plans. The Project's GHG emissions were also calculated and are presented below for informational purposes only. These emissions were not compared to a numeric threshold, as there are no applicable adopted or accepted numeric thresholds.

(i) *Construction Emissions*

GHG emissions associated with Project-generated construction activities were quantified using the CalEEMod Version 2016.3.2. On-site sources of GHG emissions include off-road equipment, and off-site sources include hauling and vendor (delivery) trucks and worker vehicles. Construction emissions were calculated for each construction period associated with Phases 1, 2, and 3. CalEEMod default values were used where detailed Project information was not available. Notably, only construction emissions associated with development Option B, which included the 105-bed hospital addition, were modeled as the worst-case scenario, based on the greater quantity of proposed land use square-footage (as in Chapter III, Project Description, of this Draft EIR). Additional details regarding these calculations are provided in Appendix B-2. SCAQMD has not proposed or adopted quantitative GHG thresholds for construction-generated emissions. As explained previously, SCAQMD recommends that, "construction emissions be amortized over a 30-year project lifetime, so that GHG reduction measures will address construction GHG emissions as part of the operational GHG reduction strategies."¹⁰⁵ Thus, the total construction GHG emissions were calculated, amortized over 30 years, and added to the total operational emissions.

Phase 1 would include a 13-level, 130,000-square-foot MOB and a parking structure that would provide a total of 562 parking spaces at Site 1; and a 4-level, 50,000-square-foot Procedure Center addition at Site 2. Additionally, as part of Phase 1, the existing commercial and residential structures totaling 15,113 square feet at Site 1; the existing 7-level, 79,356-square-foot MOB located at Site 3; and the existing 8-level, 120,557-square-foot MOB located at Site 4 would be demolished. Demolition of 47 parking stalls at Site 1, 39 surface parking stalls at Site 2, and 47 surface parking stalls at Site 3, would also be included under Phase 1. **Table IV.F-5** presents construction emissions for the Project beginning in 2020 with completion by 2024 from on-site and off-site emission sources.

¹⁰⁵ SCAQMD, Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold, October 2008.

TABLE IV.F-5
PHASE 1 ESTIMATED ANNUAL CONSTRUCTION GHG EMISSIONS

Construction Year	MT CO ₂	MT CH ₄	MT N ₂ O	MT CO ₂ e
2020	639.04	0.09	0.00	641.19
2021	940.01	0.13	0.00	943.30
2022	697.02	0.10	0.00	699.63
2023	236.12	0.05	0.00	237.34
Total	2,512.19	0.37	0.00	2,521.46
Amortized Emissions				84.05

NOTES: See Appendix B-2 for detailed results.

MT = metric tons; CO₂ = carbon dioxide; CH₄ = methane; N₂O = nitrous oxide; CO₂e = carbon dioxide equivalent.

As shown in Table IV.F-5, the estimated total GHG emissions during Phase 1 construction would be approximately 2,521 MT CO₂e, which equates to about 84 MT CO₂e when amortized over 30 years.

Phase 2 would include a 10-level parking structure that would provide a total of 578 parking spaces at Site 5. The parking structure would include a 2,300-square-foot retail/commercial space on the ground floor. To ensure a conservative environmental analysis, the worst-case scenario would be assessed. Under Option A, a 6-level, 177,000-square-foot MOB would be constructed at Site 4. Under Option B, a 6-level, 177,300-square-foot hospital addition to support 105 beds would be constructed at Site 4. Option B was determined to be the worst-case scenario based on the overall square-footage proposed over all phases. Additionally, as part of Phase 2, the existing 2-level, 19,199-square-foot MOB and parking structure that includes 186 parking spaces located at Site 5 would be demolished. **Table IV.F-6** presents construction emissions for the Project beginning in 2024 with completion by 2028 from on-site and off-site emission sources.

**TABLE IV.F-6
PHASE 2 ESTIMATED ANNUAL CONSTRUCTION GHG EMISSIONS**

Construction Year	MT CO ₂	MT CH ₄	MT N ₂ O	MT CO ₂ e
2024	327.24	0.05	0.00	328.48
2025	934.41	0.15	0.00	938.26
2026	495.86	0.08	0.00	497.86
2027	405.59	0.07	0.00	407.30
Total	2,163.10	0.35	0.00	2,171.90
Amortized Emissions				72.40

NOTES: See Appendix B-2 for detailed results.

MT = metric tons; CO₂ = carbon dioxide; CH₄ = methane; N₂O = nitrous oxide; CO₂e = carbon dioxide equivalent.

As shown in Table IV.F-6, the estimated total GHG emissions during Phase 2 construction would be approximately 2,172 MT CO₂e, which equates to about 72 MT CO₂e when amortized over 30 years.

Phase 3 would include a parking structure that would provide a total of 241 parking spaces at Site 6. Under Option A, a 3-level, 41,500-square-foot MOB would be constructed at Site 3. Under Option B, a 5-level, 73,500-square-foot MOB would be constructed at Site 3. To ensure a conservative environmental analysis, the worst-case scenario is assessed. Option B is determined to be the worst-case scenario based on the overall square-footage proposed over all phases. Additionally, as part of Phase 3, the existing single-level, 1,400-square-foot structure and 0.3-acres of surface parking at Site 6 would be demolished. **Table IV.F-7**, presents construction emissions for the Project beginning in 2028 with completion by 2030 from on-site and off-site emission sources.

**TABLE IV.F-7
PHASE 3 ESTIMATED ANNUAL CONSTRUCTION GHG EMISSIONS**

Construction Year	MT CO ₂	MT CH ₄	MT N ₂ O	MT CO ₂ e
2028	322.58	0.06	0.00	324.12
2029	281.31	0.06	0.00	282.86
Total	603.89	0.12	0.00	606.98
Amortized Emissions				20.23

NOTES: See Appendix B-2 for detailed results.

MT = metric tons; CO₂ = carbon dioxide; CH₄ = methane; N₂O = nitrous oxide; CO₂e = carbon dioxide equivalent.

As shown in Table IV.F-7, the estimated total GHG emissions during Phase 3 construction would be approximately 607 MT CO₂e, which equates to about 20 MT CO₂e when amortized over 30 years.

(ii) *Operational Emissions*

Following the completion of construction activities, the Project would generate GHG emissions from mobile sources (i.e., on-road vehicular traffic), energy sources (including building electricity and combustion of fuels used for space and water heating), area sources (i.e., landscaping equipment), stationary sources (emergency diesel generators), water and wastewater conveyance and treatment, and solid waste (i.e., decomposition). Notably, operation of natural gas-fired boilers and chillers are captured in emissions associated with the building energy sources. Existing land uses to be demolished also include the majority of these sources (i.e., mobile, energy, area, water and wastewater conveyance and treatment, and solid waste sources – but not emergency generators), which were modeled in order to determine the baseline GHG emissions and net increase in emissions associated with each phase of Project development, based on incremental demolition of existing uses and construction of new uses.

(c) *Summary – Option A*

Table IV.F-8 presents the annual GHG emissions associated with the operation after each phase of the Project (Option A). Notably, each phase of Project development accounts for new land uses, as well as existing land uses to be demolished that are still in operation at that time. Complete details of the emissions calculations are provided in Appendix B-2. The phased operational emissions in Table IV.F-8 of the Project are shown in **Figure IV.F-1**.

TABLE IV.F-8
OPTION A - ESTIMATED OPERATIONAL GHG EMISSIONS

Emissions Source	MT CO₂/year	MT CH₄/year	MT N₂O/year	MT CO₂e/year
Existing Baseline¹				
Area	0.04	<0.01	0.00	0.05
Energy	2,524.85	0.07	0.02	2,533.81
Mobile	9,108.31	0.60	0.00	9,123.27
Solid waste	425.89	25.17	0.00	1,055.12
Water supply and wastewater	12.44	0.07	<0.01	14.74
Total	12,071.54	25.91	0.03	12,726.99

**TABLE IV.F-8
OPTION A - ESTIMATED OPERATIONAL GHG EMISSIONS**

Emissions Source	MT CO₂/year	MT CH₄/year	MT N₂O/year	MT CO₂e/year
Phase 1 Scenario²				
Area	0.02	<0.01	0.00	0.02
Energy	1,141.97	0.04	0.01	1,146.33
Mobile	6,404.44	0.30	0.00	6,412.03
Solid waste	374.06	22.11	0.00	926.71
Water supply and wastewater	100.52	0.71	0.02	123.39
Stationary	16.09	<0.01	0.00	16.14
Total	8,037.08	23.16	0.03	8,624.62
Net (Phase 1 Scenario minus Existing Baseline)	(4,034.46)	(2.75)	0.00	(4,102.37)
Amortized Phase 1 Construction Emissions ³				84.05
Total Phase 1 Operations plus Amortized Construction				(4,018.33)
Phases 1 and 2 Scenario⁴				
Area	0.02	<0.01	0.00	0.02
Energy	1,549.09	0.07	0.02	1,555.77
Mobile	10,529.40	0.46	0.00	10,540.79
Solid waste	667.68	39.46	0.00	1,654.14
Water supply and wastewater	171.68	1.39	0.03	216.75
Stationary	31.40	<0.01	0.00	31.51
Total	12,949.28	41.38	0.05	13,998.99
Net (Phases 1 and 2 Scenario minus Existing Baseline)	877.74	15.46	0.03	1,271.99
Amortized Phase 1 and 2 Construction Emissions ⁵				156.45
Total Phase 1 and 2 Operations plus Amortized Construction				1,428.44
Phases 1 through 3 Buildout⁶				
Area	0.03	<0.01	0.00	0.03
Energy	1,504.00	0.07	0.02	1,511.55
Mobile	11,344.48	0.47	0.00	11,356.35
Solid waste	746.80	44.13	0.00	1,850.17
Water supply and wastewater	162.24	1.56	0.04	212.55

**TABLE IV.F-8
OPTION A - ESTIMATED OPERATIONAL GHG EMISSIONS**

Emissions Source	MT CO₂/year	MT CH₄/year	MT N₂O/year	MT CO₂e/year
Stationary	36.00	<0.01	0.00	36.13
Total	13,793.55	46.23	0.06	14,966.77
Net (Phase 1 Scenario minus Existing Baseline)	1,722.01	20.32	0.03	2,239.77
Amortized Phases 1 through 3 Construction Emissions ⁷				176.68
Total Phase 1 through 3 Operations plus Amortized Construction				2,416.45

NOTES: See Appendix B-2 for detailed results.

Totals may not sum due to rounding. Values in parentheses represent negative numbers.

MT = metric tons; CO₂ = carbon dioxide; CH₄ = methane; N₂O = nitrous oxide; CO₂e = carbon dioxide equivalent; GHG = greenhouse gas

¹ No stationary sources were modeled for the existing uses to be demolished.

² The Phase 1 Scenario includes all land uses developed under Phase 1 of the Project, as well as existing uses that are still in operation at buildout of Phase 1 (year 2024). The existing uses still in operation include a 19,199-square-foot MOB, 114,736-square-foot parking structure, and an approximately 0.3-acre parking lot.

³ Phase 1 construction GHG emissions amortized over 30 years as shown in Table IV.F-5.

⁴ The Phases 1 and 2 Scenario includes all land uses developed under both Phase 1 and Phase 2 of the Project, as well as existing uses that are still in operation at buildout of Phase 2 (year 2028). The existing uses still in operation only include an approximately 0.3-acre parking lot, which generates negligible GHG emissions associated with lighting electricity.

⁵ Sum of Phases 1 and 2 construction GHG emissions amortized over 30 years shown in Tables IV.F-5 and IV.F-6.

⁶ Phases 1 through 3 Buildout includes all land uses developed under Phase 1, Phase 2, and Phase 3 of the Project. All existing baseline uses have been demolished by this time.

⁷ Sum of Phases 1, 2, and 3 construction GHG emissions amortized over 30 years shown in Tables IV.F-5, IV.F-6, and IV.F-7.

In summary, as shown in Table IV.F-8, the net change in GHG emissions attributable to the Project after buildout of all phases, including amortized construction emissions, would be an approximate increase of 2,416 MT CO₂e per year.

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Option A: Operations

Existing Uses Project

CO₂e Emissions (Metric Tons per year)

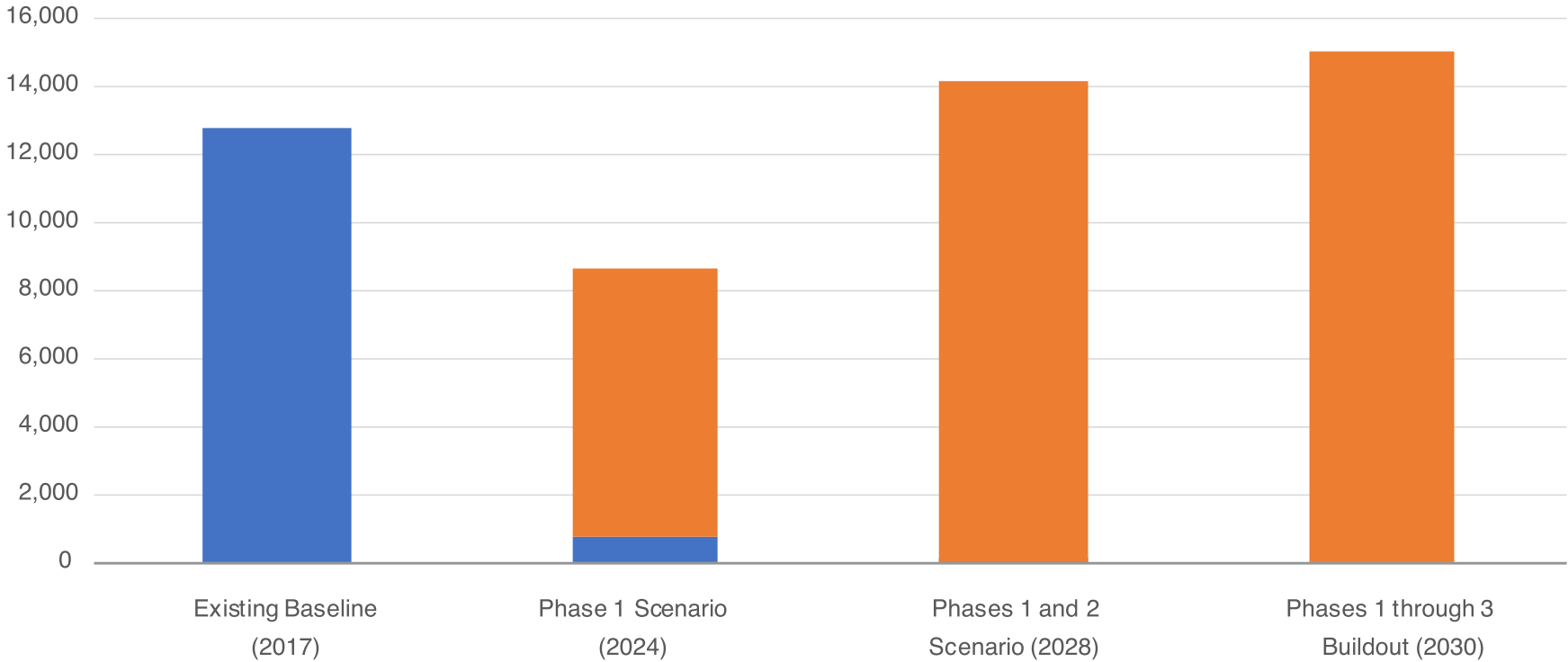


FIGURE IV.F-1
Option A: Operational Emissions of Greenhouse Gases

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(d) Conclusion – Option B

Table IV.F-9 presents the annual GHG emissions associated with the operation after each phase of the Project (Option B). Notably, each phase of Project development accounts for new land uses, as well as existing land uses to be demolished that are still in operation at that time. Complete details of the emissions calculations are provided in Appendix B-2. Phased operational emissions in Table IV.F-9 of the Project are shown in **Figure IV.F-2**.

**TABLE IV.F-9
OPTION B – ESTIMATED OPERATIONAL GHG EMISSIONS**

Emissions Source	MT CO₂/year	MT CH₄/year	MT N₂O/year	MT CO₂e/year
Existing Baseline¹				
Area	0.04	<0.01	0.00	0.05
Energy	2,524.85	0.07	0.02	2,533.81
Mobile	9,108.31	0.60	0.00	9,123.27
Solid waste	425.89	25.17	0.00	1,055.12
Water supply and wastewater	12.44	0.07	<0.01	14.74
Total	12,071.54	25.91	0.03	12,726.99
Phase 1 Scenario²				
Area	0.02	<0.01	0.00	0.02
Energy	1,141.97	0.04	0.01	1,146.33
Mobile	6,404.44	0.30	0.00	6,412.03
Solid waste	374.06	22.11	0.00	926.71
Water supply and wastewater	100.52	0.71	0.02	123.39
Stationary	16.09	<0.01	0.00	16.14
Total	8,037.08	23.16	0.03	8,624.62
Net (Phase 1 Scenario minus Existing Baseline)	(4,034.46)	(2.75)	0.00	(4,102.37)
Amortized Phase 1 Construction Emissions ³				84.05
Total Phase 1 Operations plus Amortized Construction				(4,018.33)
Phases 1 and 2 Scenario⁴				
Area	0.02	<0.01	0.00	0.02
Energy	1,731.52	0.07	0.02	1,738.98
Mobile	7,142.41	0.31	0.00	7,150.11

**TABLE IV.F-9
OPTION B – ESTIMATED OPERATIONAL GHG EMISSIONS**

Emissions Source	MT CO₂/year	MT CH₄/year	MT N₂O/year	MT CO₂e/year
Solid waste	556.11	32.86	0.00	1,377.73
Water supply and wastewater	133.55	1.08	0.03	168.62
Stationary	39.06	<0.01	0.00	39.20
Total	9,602.68	34.33	0.05	10,474.66
Net (Phases 1 and 2 Scenario minus Existing Baseline)	(2,468.86)	8.41	0.02	(2,252.33)
Amortized Phase 1 and 2 Construction Emissions ⁵				156.45
Total Phase 1 and 2 Operations plus Amortized Construction				(2,095.89)
Phases 1 through 3 Buildout⁶				
Area	0.03	<0.01	0.00	0.03
Energy	1,764.60	0.09	0.02	1,773.45
Mobile	8,972.37	0.37	0.00	8,981.71
Solid waste	692.94	40.95	0.00	1,716.73
Water supply and wastewater	130.47	1.25	0.03	170.90
Stationary	45.19	0.01	0.00	45.35
Total	11,605.60	42.67	0.05	12,688.16
Net (Phases 1 through 3 Buildout minus Existing Baseline)	(465.94)	16.76	0.03	(38.83)
Amortized Phases 1 through 3 Construction Emissions ⁷				176.68
Total Phase 1 through 3 Operations plus Amortized Construction				137.85

NOTES: See Appendix B-2 for detailed results.

Totals may not sum due to rounding. Values in parentheses represent negative numbers.

MT = metric tons; CO₂ = carbon dioxide; CH₄ = methane; N₂O = nitrous oxide; CO₂e = carbon dioxide equivalent.

¹ No stationary sources were modeled for the existing uses to be demolished.

² The Phase 1 Scenario includes all land uses developed under Phase 1 of the Project, as well as existing uses that are still in operation at buildout of Phase 1 (year 2024). The existing uses still in operation include a 19,199-square-foot MOB, 114,736-square-foot parking structure, and an approximately 0.3-acre parking lot.

³ Phase 1 construction GHG emissions amortized over 30 years as shown in Table IV.F-5.

⁴ The Phases 1 and 2 Scenario includes all land uses developed under both Phase 1 and Phase 2 of the Project, as well as existing uses that are still in operation at buildout of Phase 2 (year 2028). The existing uses still in operation only include an approximately 0.3-acre parking lot, which generates negligible GHG emissions associated with lighting electricity.

⁵ Sum of Phases 1 and 2 construction GHG emissions amortized over 30 years shown in Tables IV.F-5 and IV.F-6.

⁶ Phases 1 through 3 Buildout includes all land uses developed under Phase 1, Phase 2, and Phase 3 of the Project. All existing baseline uses have been demolished by this time.

⁷ Sum of Phases 1, 2, and 3 construction GHG emissions amortized over 30 years shown in Tables IV.F-5, IV.F-6, and IV.F-7.

Option B: Operations

Existing Uses Project

CO₂e Emissions (Metric Tons per year)

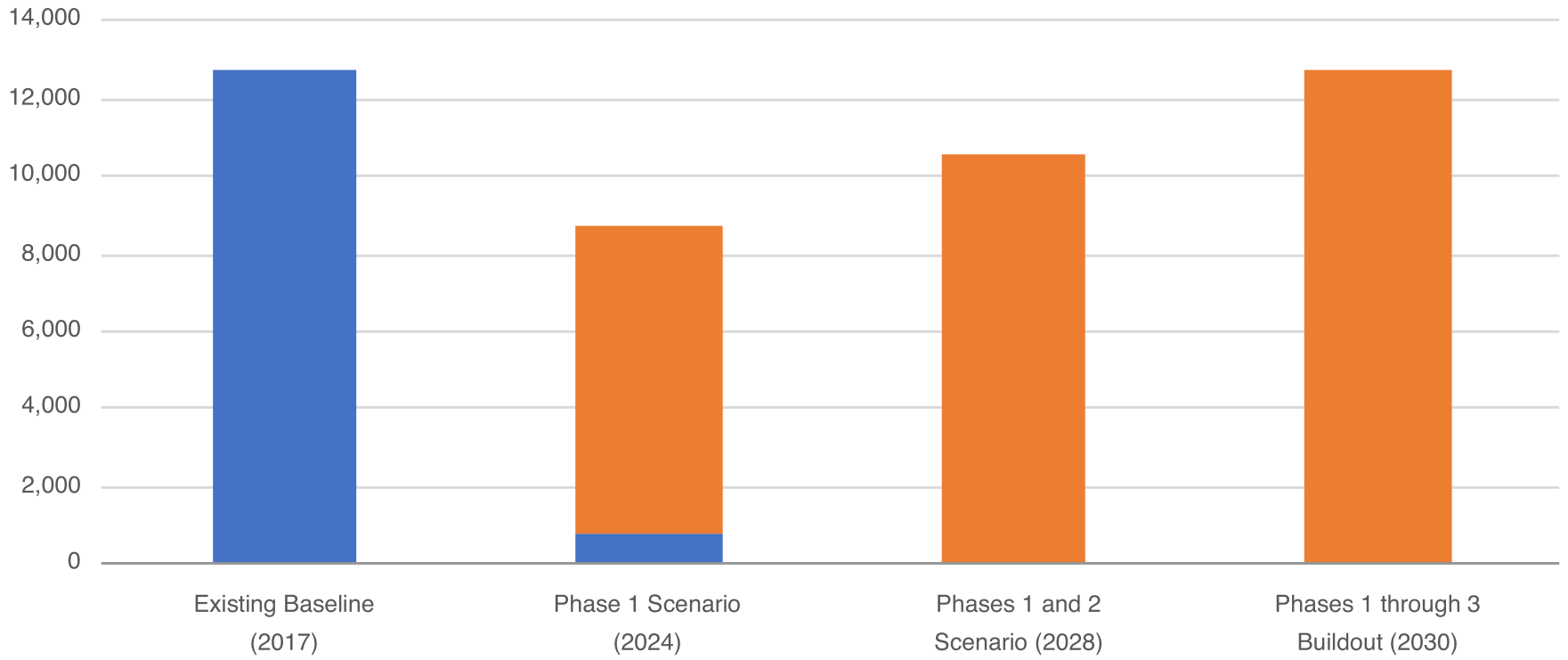


FIGURE IV.F-2
Option B: Operational Emissions of Greenhouse Gases

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In summary, as shown in Table IV.F-9, the net change in GHG emissions attributable to the Project (Option B) after buildout of all phases, including amortized construction emissions, would be approximately an increase of 138 MT CO₂e per year.

(i) *Project Buildout without Reduction Features Comparison*

As discussed previously, State, regional, and local GHG reduction plans, laws, and regulations would either indirectly reduce Project-generated GHGs or be directly applicable to the Project. In order to evaluate the efficacy of the GHG reduction features that would be implemented as part of the Project as required by these GHG reduction plans, laws and regulations, this analysis compares the Project's GHG emissions to the emissions that would be generated by the Project without Reduction Features scenario for both Options A and B. As detailed in **Table IV.F-10** below, this comparison is provided to evaluate the Project's efficiency with respect to GHG emissions but is not the threshold of significance used for impact analysis.

TABLE IV.F-10
COMPARISON OF PROJECT BUILDOUT TO PROJECT BUILDOUT WITHOUT REDUCTION FEATURES

Emissions Source	MT CO ₂ e/year			
	Project Buildout Option A without Reduction Features ¹	Project Buildout Option A	Project Buildout Option B without Reduction Features ¹	Project Buildout Option B
Area	0.03	0.03	0.03	0.03
Energy	5,087.47	1,511.55	6,605.42	1,773.45
Mobile	13,340.89	11,356.35	10,547.18	8,981.71
Solid waste	1,850.17	1,850.17	1,716.73	1,716.73
Water supply and wastewater	370.09	212.55	336.05	170.90
Stationary	36.13	36.13	45.35	45.35
Construction (Amortized)	176.68	176.68	176.68	176.68
Total	20,861.45	15,143.46	19,427.43	12,864.85
Percent Reduction	—	27.41 percent	—	33.78 percent

NOTE: See Appendix B-2 for detailed results.

Totals may not sum due to rounding.

MT = metric tons; CO₂e = carbon dioxide equivalent

¹ Project Buildout without Reduction Features scenario does not account for transit trip reduction for mobile sources or water conservation features. Also, the Project Buildout without Reduction Features scenario incorporates the State mandates of 2008 Title 24 standards for building efficiency and 20 percent renewables for energy in place at the time of the First Update to the Climate Change Scoping Plan.

As depicted in Table IV.F-10, the Project buildout would result in approximately 27 percent (Option A) and 34 percent (Option B) fewer GHG emissions as compared to the respective Project Buildout without Reduction Features scenario.

(vi) Conclusion Under Option A, the net change in GHG emissions attributable to the Project after buildout of all phases, including amortized construction emissions, would be an approximate increase of 2,416 MT CO₂e per year. Under Option B, the net change in GHG emissions attributable to the Project after buildout of all phases, including amortized construction emissions, would be approximately an increase of 138 MT CO₂e per year. With reduction features, the Project buildout would result in approximately 27 percent (Option A) and 34 percent (Option B) fewer GHG emissions as compared to the respective Project Buildout without Reduction Features scenario. **Based on the above considerations, the Project would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions, and the Project's GHG contribution would be less than significant.**

(2) Mitigation Measures

Impacts related to GHG emissions would be less than significant. Therefore, no mitigation measures are required.

(3) Level of Significance after Mitigation

Impacts related to GHG emissions would be less than significant without mitigation. Therefore, no mitigation measures were required or included, and the impact level remains less than significant.

e) Cumulative Impacts

(1) Impact Analysis

As explained above in the Introduction, Thresholds of Significance, and Methodology sections, the analysis of GHG emission impacts is inherently a cumulative analysis, as climate change is a global issue, and the emissions from an individual project are negligible in a global context. Accordingly, the Project analysis above takes into account the potential for the Project to contribute to the cumulative impact of global climate change. The State has mandated a goal of reducing Statewide emissions to 1990 levels by 2020 and reducing Statewide emissions to 40 percent below 1990 levels by 2030, even though Statewide population and commerce are predicted to continue to expand. In order to achieve this goal, CARB is in the process of establishing and implementing regulations to reduce Statewide GHG emissions. Currently, there are no applicable CARB, SCAQMD, or City of Los Angeles significance thresholds or specific reduction targets, and no approved policy or guidance to

assist in determining significance at the project or cumulative levels. Additionally, there is currently no generally accepted methodology to determine whether GHG emissions associated with a specific project represent new emissions or existing, displaced emissions. Therefore, consistent with CEQA Guidelines Section 15064h(3),¹⁰⁶ the City, as lead agency, has determined that the Project's contribution to cumulative GHG emissions and global climate change would be less than significant if the Project is consistent with the applicable regulations and requirements adopted to implement statewide, regional, and local plans for the reduction or mitigation of GHG emissions, namely the Statewide Climate Change Scoping Plan, AB 32, Executive Order S-3-05, SB 32, other laws and regulations (such as Title 24 and the Los Angeles Green Building Code), and L.A.'s Green New Deal.

Table IV.F-10 shows that implementation of the Project's regulatory requirements and project design features, including State mandates, would contribute to GHG reductions. These reductions represent a reduction from the Project without Reduction Features scenario and support State goals for GHG emissions reduction. The methods used to establish this relative reduction are consistent with the approach used in CARB's Scoping Plan for the implementation of AB 32.

The Project is consistent with the approach outlined in CARB's Scoping Plan, particularly its emphasis on the identification of emission reduction opportunities that promote economic growth while achieving greater energy efficiency and accelerating the transition to a low-carbon economy. In addition, as recommended by the Scoping Plan, the Project would use "green building" features as a framework for achieving GHG emissions reductions as new buildings would be designed to achieve LEED Gold or equivalent.

As part of SCAG's 2020–2045 RTP/SCS, a reduction in VMT within the region is a key component to achieving the 2020 and 2035 GHG emission reduction targets established by CARB. As discussed previously, the Project Site's land use characteristics and the Project's TIS demonstrate that the Project's VMT would be reduced compared to a standard project not within an HQTAs, based on its transit availability.

¹⁰⁶ As indicated above, the CEQA Guidelines were amended in response to SB 97. In particular, the CEQA Guidelines were amended to specify that compliance with a GHG emissions reduction program renders a cumulative impact insignificant. Per CEQA Guidelines Section 15064(h)(3), a project's incremental contribution to a cumulative impact can be found not cumulatively considerable if the project will comply with an approved plan or mitigation program that provides specific requirements that will avoid or substantially lessen the cumulative problem within the geographic area of the project. To qualify, such a plan or program must be specified in law or adopted by the public agency with jurisdiction over the affected resources through a public review process to implement, interpret, or make specific the law enforced or administered by the public agency. Examples of such programs include a "water quality control plan, air quality attainment or maintenance plan, integrated waste management plan, habitat conservation plan, natural community conservation plan, [and] plans or regulations for the reduction of greenhouse gas emissions."

The Project also would comply with L.A.'s Green New Deal, as shown in Table IV.F-4, which emphasizes improving energy conservation and energy efficiency, increasing renewable energy generation, and changing transportation and land use patterns to reduce auto dependence. The Project would also comply with the Los Angeles Green Building Code, which emphasizes improving energy conservation and energy efficiency, and increasing renewable energy generation. The Project's regulatory requirements and project design features provided above and throughout this Draft EIR would advance these objectives.

As discussed above, the Project is consistent with the applicable GHG reduction plans and policies. The comparison of the Project's emissions to a scenario without GHG reduction features demonstrates the efficacy of the measures contained in these policies. Moreover, while the Project is not directly subject to the Cap-and-Trade Program, that Program would indirectly reduce the Project's GHG emissions by regulating "covered entities" that affect the Project's GHG emissions, including energy, mobile, and construction emissions. More importantly, the Cap-and-Trade Program will backstop the GHG reduction plans and policies applicable to the Project in that the Cap-and-Trade Program will be responsible for relatively more emissions reductions if California's direct regulatory measures reduce GHG emissions less than expected. The Cap-and-Trade Program will ensure that the GHG reduction targets of AB 32 and SB 32 are met.

The 2017 Scoping Plan demonstrates that the State's existing and proposed regulatory framework will allow the State to reduce its GHG emissions level to 40 percent below 1990 levels by 2030. Even though the 2017 Scoping Plan and supporting documentation do not provide an exact regulatory and technological roadmap to achieve the 2050 goal, they demonstrated that various combinations of policies could allow the Statewide emissions level to remain very low through 2050, suggesting that the combination of new technologies and other regulations not analyzed in the studies could allow the State to meet the 2050 target. Subsequent to the findings of these studies, SB 32 was passed on September 8, 2016, which requires CARB to ensure that Statewide GHG are reduced to 40 percent below the 1990 emissions level by 2030. As discussed above, the new plan, outlined in SB 32, involves increasing renewable energy use, imposing tighter limits on the carbon content of gasoline and diesel fuel, putting more EVs on the road, improving energy efficiency, and curbing emissions from key industries.

Based on the analysis above, in particular the Project's consistency with plans and regulations adopted for the reduction of GHG emissions, the Project's contribution to GHG emissions and their effect on global climate change would not be cumulatively considerable, and cumulative impacts would be less than significant.

(2) Mitigation Measures

Impacts related to the Project's cumulative impacts relating to GHG emissions would be less than significant; therefore, no mitigation measures are required.

(3) Level of Significance after Mitigation

Impacts related to the Project's cumulative impacts relating to GHG emissions were determined to be less than significant without mitigation. Therefore, no mitigation measures were required or included, and the impact level remains less than significant.

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