

IV. Environmental Impact Analysis

E. Greenhouse Gas Emissions

1. Introduction

This section compares the Project's characteristics with applicable regulations, plans, and policies set forth by the State of California, South Coast Air Quality Management District (SCAQMD), the Southern California Association of Governments (SCAG), and the City to reduce greenhouse gas (GHG) emissions to determine whether the Project is consistent with and/or would conflict with the provisions of these plans. To assist in analyzing the Project's potential to conflict with applicable regulations, plans and policies, this section also estimates the Project's GHG emissions generated by Project construction and operations, taking into account mandatory and voluntary energy and resource conservation measures that have been incorporated into the Project to reduce GHG emissions. Details of the GHG analysis are provided in the *Air Quality and Greenhouse Gas Technical Documentation* appendix, which is attached as Appendix B of this Draft EIR, and are incorporated by reference.

2. Environmental Setting

Global climate change refers to changes in average climatic conditions on Earth as a whole, including changes in temperature, wind patterns, precipitation, and severe weather events. Global warming, a related concept, is the observed increase in average temperature of Earth's surface and atmosphere. One identified cause of global warming is an increase of GHGs in the atmosphere. GHGs are those compounds in Earth's atmosphere that play a critical role in determining Earth's surface temperature.

Earth's natural warming process is known as the "greenhouse effect." It is called the greenhouse effect because Earth and the atmosphere surrounding it are similar to a greenhouse with glass panes in that the glass allows solar radiation (sunlight) into Earth's atmosphere but prevents radiative heat from escaping, thus warming Earth's atmosphere. Some levels of GHGs keep the average surface temperature of Earth close to a hospitable 60 degrees Fahrenheit (°F). However, as GHG from human activities increase, they build up in the atmosphere and warm the climate, leading to many other changes around the world - in the atmosphere, on land, and in the oceans, with associated adverse climatic and ecological consequences.¹

¹ USEPA, Climate Change Indicators: Greenhouse Gases, <https://www.epa.gov/climate-indicators/greenhouse-gases>, accessed February 2022.

Scientists studying the particularly rapid rise in global temperatures have determined that human activity has resulted in increased emissions of GHGs, primarily from the burning of fossil fuels (from motor vehicle travel, electricity generation, consumption of natural gas, industrial activity, manufacturing, etc.), deforestation, agricultural activity, and the decomposition of solid waste. Scientists refer to the global warming context of the past century as the “enhanced greenhouse effect” to distinguish it from the natural greenhouse effect.²

Global GHG emissions due to human activities have grown since pre-industrial times. As reported by the United States Environmental Protection Agency (USEPA), global carbon emissions from fossil fuels increased by over 16 times between 1900 and 2008 and by about 43 percent between 1990 and 2015. In addition, in the Global Carbon Budget 2019 report, published in December 2019, atmospheric carbon dioxide (CO₂) concentrations in 2018 were found to be 47 percent above the concentration at the start of the Industrial Revolution, and the present concentration is the highest during at least the last 800,000 years.³ Global increases in CO₂ concentrations are due primarily to fossil fuel use, with land use change providing another significant but smaller contribution. Regarding emissions of non-CO₂ GHGs, these have also increased significantly since 1990.⁴ In particular, studies have concluded that it is very likely that the observed increase in methane (CH₄) concentration is predominantly due to agriculture and fossil fuel use.⁵

In August 2007, international climate talks held under the auspices of the United Nations Framework Convention on Climate Change (UNFCCC) led to the official recognition by the participating nations that global emissions of GHG must be reduced. According to the “Ad Hoc Working Group on Further Commitments of Annex I Parties under the Kyoto Protocol,” avoiding the most catastrophic events forecast by the United Nations Intergovernmental Panel on Climate Change (IPCC) would entail emissions reductions by industrialized countries in the range of 25 to 40 percent below 1990 levels. Because of the Kyoto Protocol’s Clean Development Mechanism, which gives industrialized countries credit for financing emission-reducing projects in developing countries, such an emissions goal in industrialized countries could ultimately spur efforts to cut emissions in developing countries as well.⁶

² Pew Center on Global Climate Change, Climate Change 101: Understanding and Responding to Global Climate Change.

³ P. Friedlingstein et al.: Global Carbon Budget 2019, 2019.

⁴ USEPA, Global Greenhouse Gas Emissions Data, www.epa.gov/ghgemissions/global-greenhouse-gas-emissions-data, accessed September 1, 2022.

⁵ USEPA. Climate Change Indicators: Atmospheric Concentrations of Greenhouse Gas. Available at: <https://www.epa.gov/climate-indicators/climate-change-indicators-atmospheric-concentrations-greenhouse-gases>. Accessed on September 1, 2022.

⁶ United Nations Framework Convention on Climate Change, Press Release—Vienna UN Conference Shows Consensus on Key Building Blocks for Effective International Response to Climate Change, August 31, 2007.

In December 2015, the US entered into the Paris Agreement which has a goal of keeping a global temperature rise this century below 2 degrees Celsius (°C) above pre-industrial levels and limit the temperature increase further to 1.5°C. This agreement requires that all parties report regularly on emissions and implementation efforts to achieve these goals.

Regarding the adverse effects of global warming, as reported by SCAG:

Global warming poses a serious threat to the economic well-being, public health and natural environment in southern California and beyond. The potential adverse impacts of global warming include, among others, a reduction in the quantity and quality of water supply, a rise in sea level, damage to marine and other ecosystems, and an increase in the incidences of infectious diseases. Over the past few decades, energy intensity of the national and state economy has been declining due to the shift to a more service-oriented economy. California ranked fifth lowest among the states in CO₂ emissions from fossil fuel consumption per unit of Gross State Product. However, in terms of total CO₂ emissions, California is second only to Texas in the nation and is the 12th largest source of climate change emissions in the world, exceeding most nations. The SCAG region, with close to half of the state's population and economic activities, is also a major contributor to the global warming problem.⁷

a) GHG Fundamentals

GHGs are those compounds in the Earth's atmosphere that play a critical role in determining temperature near the Earth's surface. GHGs include CO₂, CH₄, nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF₆), and nitrogen trifluoride (NF₃).⁸ More specifically, these gases allow high-frequency shortwave solar radiation to enter the Earth's atmosphere but retain some of the low frequency infrared energy, which is radiated back from the Earth towards space, resulting in a warming of the atmosphere. Compounds that are regulated as GHGs are discussed in **Table IV.E-1, Description of GHGs**.^{9,10}

⁷ Southern California Association of Governments, The State of the Region—Measuring Regional Progress, December 2006, p. 121.

⁸ As defined by California Assembly Bill (AB) 32 and Senate Bill (SB) 104.

⁹ Intergovernmental Panel on Climate Change, Second Assessment Report, Working Group I: The Science of Climate Change, 1995.

¹⁰ Intergovernmental Panel on Climate Change, Fourth Assessment Report, Working Group I Report: The Physical Science Basis, Table 2.14, 2007.

**TABLE IV.E-1
DESCRIPTION OF IDENTIFIED GHGs**

Greenhouse Gas	General Description
Carbon Dioxide (CO₂)	An odorless, colorless GHG, which has both natural and anthropocentric sources. Natural sources include the following: decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic (human-caused) sources of CO ₂ are burning coal, oil, natural gas, and wood.
Methane (CH₄)	A flammable gas and the main component of natural gas. When one molecule of CH ₄ is burned in the presence of oxygen, one molecule of CO ₂ and two molecules of water are released. A natural source of CH ₄ is the anaerobic decay of organic matter. Geological deposits, known as natural gas fields, also contain CH ₄ , which is extracted for fuel. Other sources are from landfills, fermentation of manure, and cattle.
Nitrous Oxide (N₂O)	A colorless GHG. High concentrations can cause dizziness, euphoria, and sometimes slight hallucinations. N ₂ O is produced by microbial processes in soil and water, including those reactions which occur in fertilizer containing nitrogen. In addition to agricultural sources, some industrial processes (fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to its atmospheric load. It is used in rocket engines, race cars, and as an aerosol spray propellant.
Hydrofluorocarbons (HFCs)	Chlorofluorocarbons (CFCs) are gases formed synthetically by replacing all hydrogen atoms in CH ₄ or ethane (C ₂ H ₆) with chlorine and/or fluorine atoms. CFCs are non-toxic, non-flammable, insoluble, and chemically unreactive in the troposphere (the level of air at Earth's surface). CFCs were first synthesized in 1928 for use as refrigerants, aerosol propellants, and cleaning solvents. Because they destroy stratospheric ozone, the production of CFCs was stopped as required by the Montreal Protocol in 1987. HFCs are synthetic man-made chemicals that are used as a substitute for CFCs as refrigerants. HFCs deplete stratospheric ozone, but to a much lesser extent than CFCs.
Perfluorocarbons (PFCs)	PFCs have stable molecular structures and do not break down through the chemical processes in the lower atmosphere. High-energy ultraviolet rays about 60 kilometers above Earth's surface are able to destroy the compounds. PFCs have very long lifetimes, between 10,000 and 50,000 years. Two common PFCs are tetrafluoromethane and hexafluoroethane. The two main sources of PFCs are primary aluminum production and semi-conductor manufacturing.
Sulfur Hexafluoride (SF₆)	An inorganic, odorless, colorless, non-toxic, and non-flammable gas. SF ₆ is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semi-conductor manufacturing, and as a tracer gas for leak detection.
Nitrogen Trifluoride (NF₃)	An inorganic, non-toxic, odorless, non-flammable gas. NF ₃ is used in the manufacture of semi-conductors, as an oxidizer of high energy fuels, for the preparation of tetrafluorohydrazine, as an etchant gas in the electronic industry, and as a fluorine source in high power chemical lasers.

^a GHGs identified in this table are ones identified in the Kyoto Protocol and other synthetic gases recently added to the IPCC's Fifth Assessment Report.

SOURCES: Association of Environmental Professionals, *Alternative Approaches to Analyze Greenhouse Gas Emissions and Global Climate Change in CEQA Documents*, Final, June 29, 2007; Environmental Protection Agency, *Acute Exposure Guideline Levels (AEGs) for Nitrogen Trifluoride*; January 2009.

Not all GHGs possess the same ability to induce climate change. CO₂ is the most abundant GHG in Earth's atmosphere. Other GHGs are less abundant but have higher global warming potential (GWP) than CO₂. Thus, emissions of other GHGs are commonly quantified in the units of equivalent mass of carbon dioxide (CO₂e). GWP is based on several factors, including the radiative efficiency (heat-absorbing ability) of each gas relative to that of CO₂, as well as the decay rate of each gas (the amount removed from the atmosphere over a given number of years otherwise referred to as atmospheric lifetime) relative to that of CO₂.

The larger the GWP, the more that a given gas warms the Earth compared to CO₂ over that time.¹¹ These GWP ratios are available from the IPCC. Historically, GHG emission inventories have been calculated using the GWPs from the IPCC's Second Assessment Report (SAR). The IPCC updated the GWP values in its Fourth Assessment Report (AR4). The GWPs in the IPCC AR4 are used by the California Air Resources Board (CARB) for reporting Statewide GHG emissions inventories, consistent with international reporting standards. By applying the GWP ratios, Project-related CO₂e emissions can be tabulated in metric tons per year. Typically, the GWP ratio corresponding to the warming potential of CO₂ over a 100-year period is used as a baseline.

The IPCC has issued an updated Fifth Assessment Report (AR5), which has revised down the majority of the GWP for key regulated pollutants. As CARB still uses AR4 values and the modeling software, the California Emissions Estimator Model (CalEEMod) is built on these assumptions, AR4 GWP values are used for the Project. Generally, the changes from AR4 to AR5 are reductions in warming potential for the GHG most associated with construction and operation of typical development projects. The GWP from AR4 and AR5 and atmospheric lifetimes for key regulated GHGs are provided in **Table IV.E-2, Atmospheric Lifetimes and Global Warming Potentials**.

¹¹ GWPs and associated CO₂e values were developed by the Intergovernmental Panel on Climate Change (IPCC), and published in its Second Assessment Report (SAR) in 1996. Historically, GHG emission inventories have been calculated using the GWPs from the IPCC's SAR. The IPCC updated the GWP values based on the latest science in its Fourth Assessment Report (AR4). CARB has begun reporting GHG emission inventories for California using the GWP values from the IPCC AR4.

**TABLE IV.E-2
ATMOSPHERIC LIFETIMES AND GLOBAL WARMING POTENTIALS**

Gas	Atmospheric Lifetime (Years)	Global Warming Potential (100-Year Time Horizon) (AR4 Assessment)	Global Warming Potential (100-Year Time Horizon) (AR5 Assessment)
Carbon Dioxide (CO ₂)	50–200	1	1
Methane (CH ₄)	12 (+/-3)	25	28
Nitrous Oxide (N ₂ O)	114	298	265
HFC-23: Fluoroform (CHF ₃)	270	14,800	12,400
HFC-134a: 1,1,1,2-Tetrafluoroethane (CH ₂ FCF ₃)	14	1,430	1,300
HFC-152a: 1,1-Difluoroethane (C ₂ H ₄ F ₂)	1.4	124	138
PFC-14: Tetrafluoromethane (CF ₄)	50,000	7,390	6,630
PFC-116: Hexafluoroethane (C ₂ F ₆)	10,000	12,200	11,100
Sulfur Hexafluoride (SF ₆)	3,200	22,800	23,500
Nitrogen Trifluoride (NF ₃)	740	17,200	16,100

SOURCES: IPCC, *Climate Change 2007: Working Group I: The Physical Science Basis, Direct Global Warming Potentials*.

b) Projected Impacts of Global Warming in California

In 2009, California adopted a Statewide Climate Adaptation Strategy (CAS) that summarizes climate change impacts and recommends adaptation strategies across seven sectors: Public Health, Biodiversity and Habitat, Oceans and Coastal Resources, Water, Agriculture, Forestry, and Transportation and Energy. The California Natural Resources Agency will be updating the CAS and is responsible for preparing reports to the Governor on the status of the CAS. The Natural Resources Agency has produced climate change assessments which detail impacts of global warming in California.¹² These include:

- Sea level rise, coastal flooding and erosion of California's coastlines would increase, as well as sea water intrusion.
- The Sierra snowpack would decline between 70 and 90 percent, threatening California's water supply.
- Higher risk of forest fires resulting from increasing temperatures and making forests and brush drier. Climate change will affect tree survival and growth.

¹² State of California, Department of Justice, Office of the Attorney General, Climate Change Impacts in California, <https://oag.ca.gov/environment/impact>, accessed September 1, 2021.

- Attainment of air quality standards would be impeded by increasing emissions, accelerating chemical processes, and raising inversion temperatures during stagnation episodes resulting in public health impacts.
- Habitat destruction and loss of ecosystems due to climate change affecting plant and wildlife habitats.
- Global warming can cause drought, warmer temperatures and saltwater contamination resulting in impacts to California's agricultural industry.

With regard to public health, as reported by the Center for Health and the Global Environment at the Harvard Medical School, the following are examples of how climate change can affect cardio-respiratory disease: (1) pollen is increased by higher levels of atmospheric CO₂; (2) heat waves can result in temperature inversions, leading to trapped masses or unhealthy air contaminants by smog, particulates, and other pollutants; and (3) the incidence of forest fires is increased by drought secondary to climate change and to the lack of spring runoff from reduced winter snows. These fires can create smoke and haze, which can settle over urban populations causing acute and exacerbating chronic respiratory illness.¹³

c) Regulatory Framework

There are a number of plans, regulations, programs, and agencies that provide 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
- Corporate Average Fuel Economy (CAFE) Standards
- Energy Independence and Security Act
- California Air Resources Board
- California Greenhouse Gas Reduction Targets
- California Global Warming Solutions Act (AB 32)
- Climate Change Scoping Plan
- Cap-and-Trade Program
- Emission Performance Standards
- Renewables Portfolio Standard Program
- Clean Energy and Pollution Reduction Act
- Pavley Standards

¹³ Paul R. Epstein, et al., *Urban Indicators of Climate Change, Report from the Center for Health and the Global Environment*, (Harvard Medical School and the Boston Public Health Commission, August 2003), unpaginated.

- California Low Carbon Fuel Standard
- Advanced Clean Cars Regulations
- Sustainable Communities and Climate Protection Act (SB 375)
- Senate Bill 743
- Executive Order N-79-20
- California Appliance Efficiency Regulations
- Title 24, Building Standards Code and CALGreen Code
- CEQA Guidelines
- South Coast Air Quality Management District
- Southern California Association of Governments Regional Transportation Plan/Sustainable Communities Strategy
- Green New Deal
- City of Los Angeles Green Building Code
- City of Los Angeles Solid Waste Programs and Ordinances
- City of Los Angeles General Plan
- Traffic Study Policies and Procedures

(1) Federal

(a) *Federal Clean Air Act*

The USEPA is responsible for implementing federal policy to address GHGs. The United States Supreme Court (Supreme Court) ruled in *Massachusetts v. Environmental Protection Agency*, 127 S.Ct. 1438 (2007), that CO₂ and other GHGs are pollutants under the federal Clean Air Act (CAA), which the USEPA must regulate if it determines they pose an endangerment to public health or welfare. In December 2009, USEPA issued an endangerment finding for GHGs under the Clean Air Act, setting the stage for future regulation.

The Federal Government administers a wide array of public-private partnerships to reduce the GHG intensity generated in the United States. These programs focus on energy efficiency, renewable energy, CH₄ and other non-CO₂ gases, agricultural practices, and implementation of technologies to achieve GHG reductions. USEPA implements numerous voluntary programs that contribute to the reduction of GHG emissions. These programs (e.g., the ENERGY STAR labeling system for energy-efficient products) play a significant role in encouraging voluntary reductions from large corporations, consumers, industrial and commercial buildings, and many major industrial sectors.

(b) *Corporate Average Fuel Economy (CAFE) Standards*

In response to the *Massachusetts v. Environmental Protection Agency* ruling, President George W. Bush issued Executive Order 13432 in 2007, directing the USEPA, the United States Department of Transportation (USDOT), and the United States Department of Energy (USDOE) to establish regulations that reduce GHG emissions from motor vehicles, non-road vehicles, and non-road engines by 2008. The National Highway Traffic Safety Administration (NHTSA) subsequently issued multiple final rules regulating fuel efficiency for and GHG emissions from cars and light-duty trucks for model year 2011 and later for model years 2012–2016 and 2017–2021. In March 2020, the USDOT and the USEPA issued the final Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule, which amends existing CAFE standards and tailpipe CO₂ emissions standards for passenger cars and light trucks and establishes new standards covering model years 2021 through 2026.¹⁴ These standards set a combined fleet wide average of 36.9 to 37 for the model years affected.¹⁵

In February 2022, the USEPA issued the Revised 2023 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions Standards.¹⁶ This final rule revises current GHG standards beginning with vehicles in model year 2023 through model year 2026, and it established the most stringent GHG standards ever set for the light-duty vehicle sector that are expected to result in average fuel economy label values of 40 mpg, while the standards they replace (the SAFE rule standards) would achieve only 32 mpg in model year 2026 vehicles.¹⁷

In addition to the regulations applicable to cars and light-duty trucks described above, in 2011 the USEPA 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 USEPA, this regulatory program would reduce GHG emissions and fuel consumption for the affected vehicles by six to 23 percent over the 2010 baselines. Building on the first phase of standards, in August 2016, the USEPA and NHTSA finalized Phase 2 standards for medium and heavy-duty vehicles through model year 2027 that will improve fuel efficiency

¹⁴ U.S. Environmental Protection Agency, *Final Rule for Model Year 2021 - 2026 Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards*, published April 30, 2020.

¹⁵ National Highway Traffic Safety Administration (NHTSA), *Corporate Average Fuel Economy standards*.

¹⁶ U.S. Environmental Protection Agency, *Federal Register / Vol. 86, No. 248 / Thursday, December 30, 2021 / Rules and Regulations, Revised 2023 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions Standards*, <https://www.govinfo.gov/content/pkg/FR-2021-12-30/pdf/2021-27854.pdf>.

¹⁷ U.S. Environmental Protection Agency, *Revised 2023 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions Standards: Regulatory Update*, December 2021, <https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P1013NR8.pdf>.

and cut carbon pollution. The Phase 2 standards are expected to lower CO₂ emissions by approximately 1.1 billion metric tons.¹⁸

(c) *Energy Independence and Security Act*

The Energy Independence and Security Act of 2007 (EISA) facilitates the reduction of national GHG emissions by requiring the following:

- Increasing the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard (RFS) that requires fuel producers to use at least 36 billion gallons of biofuel in 2022;
- Prescribing or revising standards affecting regional efficiency for heating and cooling products, procedures for new or amended standards, energy conservation, energy efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances;
- Requiring approximately 25 percent greater efficiency for light bulbs by phasing out incandescent light bulbs between 2012 and 2014; requiring approximately 200 percent greater efficiency for light bulbs, or similar energy savings, by 2020; and
- While superseded by the USEPA and NHTSA actions described above, (i) establishing miles per gallon targets for cars and light trucks and (ii) directing the NHTSA to establish a fuel economy program for medium- and heavy-duty trucks and create a separate fuel economy standard for trucks.

Additional provisions of EISA address energy savings in government and public institutions, promote research for alternative energy, additional research in carbon capture, international energy programs, and the creation of “green jobs.”¹⁹

(2) State

(a) *California Air Resources Board*

The CARB, a part of the California Environmental Protection Agency (CalEPA), is responsible for the coordination and administration of both federal and State air pollution control programs within California. In this capacity, CARB conducts research, sets the California Ambient Air Quality Standards, 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 (such as hairspray, aerosol paints, and barbecue lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions. CARB has primary responsibility for the development of California’s State Implementation Plan (SIP), for which it works closely with the Federal Government and

¹⁸ USEPA, *EPA and NHTSA Adopt Standards to Reduce GHG and Improve Fuel Efficiency of Medium- and Heavy-Duty Vehicles for Model Year 2018 and Beyond*, August 2016.

¹⁹ A green job, as defined by the United States Department of Labor, is a job in business that produces goods or provides services that benefit the environment or conserve natural resources.

the local air districts. The SIP is required for the State to take over implementation of the Federal Clean Air Act. CARB also has primary responsibility for adopting regulations to meet the State's goal of reducing GHG emissions. The State has met its goals to reduce GHG emissions to 1990 levels by 2020. Subsequent State goals include reducing GHG emissions to 40 percent below 1990 levels by 2030 and to 80 percent below 1990 levels by 2050.

(b) *California Greenhouse Gas Reduction Targets*

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

Governor Arnold Schwarzenegger announced on June 1, 2005, through Executive Order S-3-05, the following GHG emission reduction targets:

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

In accordance with Executive Order S-3-05, the Secretary of CalEPA is required to coordinate efforts of various agencies, which comprise the California Climate Action Team (CAT), in order to collectively and efficiently reduce GHGs. The CAT provides periodic reports to the Governor and Legislature on the State of GHG reductions in the State as well as strategies for mitigating and adapting to climate change.

The CAT stated that smart land use is an umbrella term for strategies that integrate transportation and land-use decisions. Such strategies generally encourage jobs/housing proximity, promote transit-oriented development (TOD), and encourage high-density residential/commercial development along transit corridors. These strategies develop more efficient land-use patterns within each jurisdiction or region to match population increases, workforce, and socioeconomic needs for the full spectrum of the population.

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

On April 29, 2015, Governor Brown issued Executive Order B-30-15. Therein, the Governor directed the following:

- Established a new interim Statewide reduction target to reduce GHG emissions to 40 percent below 1990 levels by 2030.
- Ordered all State agencies with jurisdiction over sources of GHG emissions to implement measures to achieve reductions of GHG emissions to meet the 2030 and 2050 reduction targets.
- Directed CARB to update the Climate Change Scoping Plan to express the 2030 target in terms of million metric tons of CO₂ equivalent (MMCTO_{2e}).

(iii) Executive Order B-55-18

Executive Order B-55-18, issued by Governor Brown in September 2018, establishes a new Statewide goal to achieve carbon neutrality as soon as possible, but no later than 2045, and achieve and maintain net negative emissions thereafter. Based on this executive order, CARB would work with relevant State agencies to develop a framework for implementation and accounting that tracks progress towards this goal as well as ensuring future scoping plans identify and recommend measures to achieve the carbon neutrality goal.

In October 2020, CARB released a study, which evaluated three scenarios that achieve carbon neutrality in California by 2045. The scenarios analyzed to achieve carbon neutrality include a High Carbon Dioxide Removal (CDR) scenario, Zero Carbon Energy scenario, and a Balanced scenario. The High CDR scenario achieves GHG reductions by relying on CO₂ removal strategies. The Zero Carbon Energy scenario is based on the assumption of zero-fossil fuel emissions by 2045. The Balanced scenario represents a middle point between the High CDR scenario and Zero Carbon Energy scenario. The scenarios would achieve at least an 80-percent reduction in GHGs by 2045, relative to 1990 levels. Remaining CO₂ would be reduced to zero by applying CO₂ removal strategies, including sinks from natural and working lands and negative emissions technologies, such as direct air capture.^{20,21}

Under each of these scenarios, CARB proposed reduction strategies for various sectors that contribute GHG emissions throughout the State. Although specific details are not yet available for the GHG reduction measures discussed above, implementation of these measures would require regulations to be enforced by the State.

(c) California Global Warming Solutions Act of 2006

In 2006, the California State Legislature adopted Assembly Bill (AB) 32 (codified in the California Health and Safety Code (HSC), Division 25.5 – California Global Warming Solutions Act of 2006), which focuses on reducing GHG emissions in California to 1990 levels by 2020. HSC Division 25.5 defines regulated GHGs as CO₂, CH₄, N₂O, HFCs, PFCs, and SF₆ and represents the first enforceable Statewide program to limit emissions of these GHGs from all major industries, with penalties for noncompliance. The law further requires that reduction measures be technologically feasible and cost effective. Under HSC Division 25.5, CARB has the primary responsibility for reducing GHG emissions. CARB is required to adopt rules and regulations directing State actions that would achieve GHG emissions reductions.

To achieve these goals, AB 32 mandates that CARB establish a quantified emissions cap, institute a schedule to meet the cap, implement regulations to reduce Statewide

²⁰ Sinks are defined as natural or artificial reservoirs that accumulate and store a carbon-containing chemical compound for an indefinite period.

²¹ Energy+Environmental Economics (E3), Achieving Carbon Neutrality in California, PATHWAYS Scenarios Developed for the California Air Resources Board, October 2020, p. 22.

GHG emissions from stationary sources consistent with the CAT strategies, and develop tracking, reporting, and enforcement mechanisms to ensure that reductions are achieved. In order to achieve the reduction targets, AB 32 requires CARB to adopt rules and regulations in an open public process that achieve the maximum technologically feasible and cost-effective GHG reductions.²²

In 2016, the California State Legislature adopted Senate Bill (SB) 32 and its companion bill AB 197, and both were signed by Governor Brown. SB 32 and AB 197 amend HSC Division 25.5, establish a new climate pollution reduction target of 40 percent below 1990 levels by 2030 and include provisions to ensure that the benefits of State climate policies reach disadvantaged communities. The new goals outlined in SB 32 update the Climate Change Scoping Plan requirement of AB 32 and involve increasing renewable energy use, imposing tighter limits on the carbon content of gasoline and diesel fuel, putting more electric cars on the road, improving energy efficiency, and curbing emissions from key industries.

AB 197, signed September 8, 2016, is a bill linked to SB 32 and signed on September 8, 2016, prioritizes efforts to cut GHG emissions in low-income or minority communities. AB 197 requires CARB to make available, and update at least annually, on its website the emissions of GHGs, criteria pollutants, and toxic air contaminants for each facility that reports to CARB and air districts. In addition, AB 197 adds two Members of the Legislature to the CARB board as ex officio, non-voting members and creates the Joint Legislative Committee on Climate Change Policies to ascertain facts and make recommendations to the Legislature and the houses of the Legislature concerning the State's programs, policies, and investments related to climate change.

(d) *Climate Change Scoping Plan*

AB 32 required CARB to prepare a Climate Change Scoping Plan for achieving the maximum technologically feasible and cost-effective GHG emission reduction by 2020 (HSC section 38561 (h)). The 2008 Climate Change Scoping Plan proposed a "comprehensive set of actions designed to reduce overall carbon GHG emissions in California, improve our environment, reduce our dependence on oil, diversify our energy sources, save energy, create new jobs, and enhance public health."²³ The 2008 Climate Change Scoping Plan had a range of GHG reduction actions which included direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, market-based mechanisms, such as a cap-and-trade system, and an AB 32 implementation fee to fund the program.

²² CARB's list of discrete early action measures that could be adopted and implemented before January 1, 2010, was approved on June 21, 2007. The three adopted discrete early action measures are: (1) a low-carbon fuel standard, which reduces carbon intensity in fuels statewide; (2) reduction of refrigerant losses from motor vehicle air conditioning system maintenance; and (3) increased methane capture from landfills, which includes requiring the use of state-of-the-art capture technologies.

²³ California Air Resources Board, Climate Change Scoping Plan, December 2008.

The 2008 Climate Change Scoping Plan called for a “coordinated set of solutions” to address all major categories of GHG emissions. Transportation emissions were addressed through a combination of higher standards for vehicle fuel economy, implementation of the Low Carbon Fuel Standard (LCFS), and greater consideration to reducing trip length and generation through land use planning and transit-oriented development. Buildings, land use, and industrial operations were encouraged and, sometimes, required to use energy more efficiently. Utility energy providers were required to include more renewable energy sources through implementation of the Renewables Portfolio Standard.²⁴ Additionally, the 2008 Climate Change Scoping Plan emphasized opportunities for households and businesses to save energy and money through increasing energy efficiency. It indicates that substantial savings of electricity and natural gas will be accomplished through “improving energy efficiency by 25 percent.”

The 2008 Climate Change Scoping Plan identified several specific issues relevant to the development projects, including:

- The potential of using the green building framework as a mechanism, which could enable GHG emissions reductions in other sectors (i.e., electricity, natural gas), noting that:

A Green Building strategy will produce greenhouse gas savings through buildings that exceed minimum energy efficiency standards, decrease consumption of potable water, reduce solid waste during construction and operation, and incorporate sustainable materials. Combined, these measures can also contribute to healthy indoor air quality, protect human health, and minimize impacts to the environment.

- The importance of supporting the Department of Water Resources’ work to implement the Governor’s objective to reduce per capita water use by 20 percent by 2020. Specific measures to achieve this goal include water use efficiency, water recycling, and reuse of urban runoff. The Climate Change Scoping Plan notes that water use requires significant amounts of energy, including approximately one-fifth of Statewide electricity.
- Encouraging local governments to set quantifiable emission reduction targets for their jurisdictions and use their influence and authority to encourage reductions in emissions caused by energy use, waste and recycling, water and wastewater systems, transportation, and community design.

As required by HSC Division 25.5, CARB approved the 1990 GHG emissions inventory, thereby establishing the emissions reduction target for 2020. The 2020 emissions reduction target was originally set at 427 MMTCO_{2e} using the GWP values from the IPCC SAR. Forecasting the amount of emissions that would occur in 2020 if no actions are taken was necessary to assess the scope of the reductions California must make to return

²⁴ For a discussion of Renewables Portfolio Standard, refer to subsection California Renewables Portfolio Standard.

to the 1990 emissions level by 2020 as required by AB 32. CARB originally defined the “business-as-usual”, or BAU, scenario as emissions in the absence of any GHG emission reduction measures discussed in the 2008 Climate Change Scoping Plan, as approximately 596 MMTCO_{2e} (using GWP values from the IPCC SAR). For example, in further explaining CARB’s BAU methodology, CARB assumed that all new electricity generation would be supplied by natural gas plants, no further regulatory action would impact vehicle fuel efficiency, and building energy efficiency codes would be held at 2005 standards. Therefore, under these original projections, the State would have had to reduce its 2020 BAU emissions by 28.4 percent to meet the 1990 target of 427 MMTCO_{2e}.

(i) *2014 Climate Change Scoping Plan Update*

The First Update to the Climate Change Scoping Plan (2014 Scoping Plan) was approved by CARB in May 2014 and built upon the initial Climate Change Scoping Plan with new strategies and recommendations.²⁵ In 2014, CARB revised the target using the GWP values from the IPCC AR4 and determined the 1990 GHG emissions inventory and 2020 GHG emissions limit to be increased to 431 MMTCO_{2e}. CARB also updated the State’s 2020 BAU emissions estimate to account for the effect of the 2007–2009 economic recession, new estimates for future fuel and energy demand, and the reductions required by regulation that had recently been adopted for motor vehicles and renewable energy. CARB’s projected Statewide 2020 emissions estimate using the GWP values from the IPCC AR4 was 509.4 MMTCO_{2e}. Therefore, under the First Update to the Climate Change Scoping Plan, the emission reductions necessary to achieve the 2020 emissions target of 431 MMTCO_{2e} would have been 78.4 MMTCO_{2e}, or a reduction of GHG emissions by approximately 15.4 percent, (down from 28.4 percent).

The stated purpose of the First Update was to “highlight... California’s success to date in reducing its GHG emissions and lay... the foundation for establishing a broad framework for continued emission reductions beyond 2020, on the path to 80 percent below 1990 levels by 2050.”²⁶ The First Update found that California was on track to meet the 2020 emissions reduction mandate established by AB 32 and noted that California could reduce emissions further by 2030 to levels squarely in line with those needed to stay on track to reduce emissions to 80 percent below 1990 levels by 2050 if the State realizes the expected benefits of existing policy goals.²⁷

In conjunction with the First Update, CARB identified “six key focus areas comprising major components of the State’s economy to evaluate and describe the larger transformative actions that will be needed to meet the State’s more expansive emission reduction needs by 2050.”²⁸ Those six areas are: (1) energy; (2) transportation (vehicles/equipment, sustainable communities, housing, fuels, and infrastructure); (3) agriculture;

²⁵ CARB, First Update to the AB 32 Scoping Plan, May 2014.

²⁶ CARB, 2014 Scoping Plan, May 2014, p. 4.

²⁷ CARB, 2014 Scoping Plan, May 2014, p. 34.

²⁸ CARB, 2014 Scoping Plan, May 2014, p. 6

(4) water; (5) waste management; and (6) natural and working lands. The First Update identifies key recommended actions for each sector that will facilitate achievement of the 2050 reduction target.

Based on CARB’s research efforts, it has a “strong sense of the mix of technologies needed to reduce emissions through 2050.”²⁹ Those technologies include energy demand reduction through efficiency and activity changes; large-scale electrification of on-road vehicles, buildings, and industrial machinery; decarbonizing electricity and fuel supplies; and the rapid market penetration of efficient and clean energy technologies.

The First Update discussed new residential and commercial building energy efficiency improvements, specifically identifying progress towards zero net energy buildings as an element of meeting mid-term and long-term GHG reduction goals. The First Update expressed CARB’s commitment to working with the California Public Utilities Commission (CPUC) and California Energy Commission (CEC) to facilitate further achievements in building energy efficiency.

(ii) 2017 Climate Change Scoping Plan Update

In response to the passage of SB 32 and the identification of the 2030 GHG reduction target, CARB adopted the 2017 Climate Change Scoping Plan Update (2017 Scoping Plan) in December 2017.³⁰ The 2017 Scoping Plan builds upon the framework established by the 2008 Climate Change Scoping Plan and the First Update while identifying new, technologically feasible, 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. The 2017 Scoping Plan includes policies to require direct GHG reductions at some of the State’s largest stationary sources and mobile sources. These policies include the use of lower GHG fuels, efficiency regulations, and the Cap-and-Trade program, which constraints and reduces emissions at covered sources.³¹

CARB’s projected Statewide 2030 emissions takes into account 2020 GHG reduction policies and programs.³² The 2017 Scoping Plan also addresses GHG emissions from natural and working lands of California, including the agriculture and forestry sectors. The majority of the reductions would result from the continuation of the Cap-and-Trade regulation. Additional reductions would be achieved from electricity sector standards (i.e., utility providers to supply 50 percent renewable electricity by 2030), doubling the energy efficiency savings at end uses, additional reductions from the LCFS, implementing the short-lived GHG strategy (e.g., HCFs), and implementing the mobile source strategy and

²⁹ CARB, 2014 Scoping Plan, May 2014, p. 32

³⁰ CARB, 2017 Scoping Plan, November 2017.

³¹ CARB, 2017 Scoping Plan, November 2017, p. 6

³² CARB, 2017 Scoping Plan, November 2017.

sustainable freight action plan. Implementation of mobile source strategies (cleaner technology and fuels) include the following:

- At least 1.5 million zero emission and plug-in hybrid light-duty electric vehicles by 2025
- At least 4.2 million zero emission and plug-in hybrid light-duty electric vehicles by 2030
- Further increase GHG stringency on all light-duty vehicles beyond existing Advanced Clean Cars regulations
- Medium- and heavy-duty GHG Phase 2
- Innovative Clean Transit: Transition to a suite of to-be-determined innovative clean transit options. Assumed 20 percent of new urban buses purchased beginning in 2018 will be zero emission buses with the penetration of zero-emission technology ramped up to 100 percent of new sales in 2030. Also, new natural gas buses, starting in 2018, and diesel buses, starting in 2020, meet the optional heavy-duty low-NO_x standard.
- Last Mile Delivery: New regulation that would result in the use of low NO_x or cleaner engines and the deployment of increasing numbers of zero-emission trucks primarily for Class 3–7 last mile delivery trucks in California. This measure assumes Zero Emission Vehicles (ZEVs) comprise 2.5 percent of new Class 3–7 truck sales in local fleets starting in 2020, increasing to 10 percent in 2025 and remaining flat through 2030.
- Further reduce VMT through continued implementation of SB 375 and regional Sustainable Communities Strategies; forthcoming Statewide implementation of SB 743; and potential additional VMT reduction strategies not specified in the Mobile Source Strategy but included in the document “Potential VMT Reduction Strategies for Discussion.”

The alternatives in the Scoping Plan are designed to consider various combinations of these programs, as well as consideration of a carbon tax in the event the Cap-and-Trade regulation is not continued. However, in July 2017, the California Legislature voted to extend the Cap-and-Trade regulation to 2030. The 2017 Scoping Plan discusses the role of local governments in meeting the State’s GHG reductions goals because local governments have jurisdiction and land use authority related to: community-scale planning and permitting processes, local codes and actions, outreach and education programs, and municipal operations.³³ Furthermore, local governments may have the ability to incentivize renewable energy, energy efficiency, and water efficiency measures.³⁴

³³ CARB, 2017 Scoping Plan, November 2017, p.97.

³⁴ CARB, 2017 Scoping Plan, November 2017, p.97.

For individual projects under CEQA, the 2017 Scoping Plan states that local governments can support climate action when considering discretionary approvals and entitlements. According to the 2017 Scoping Plan, lead agencies have the discretion to develop evidence-based numeric thresholds consistent with the 2017 Scoping Plan, the State's long-term goals, and climate change science.³⁵

The City of Los Angeles has not developed per capita targets for 2030 or 2050; however, the City recognizes that GHG emissions reductions are necessary in the public and private sectors. The City has taken the initiative in combating climate change by developing programs such as the Green New Deal and Green Building Code. Each of these programs is discussed further below.

A summary of the GHG emissions reductions required under HSC Division 25.5 is provided in **Table IV.E-3, *Estimated Statewide Greenhouse Gas Emissions Reductions Required by HSC Division 25.5.***

Under the Scoping Plan Scenario, continuation of the Cap-and-Trade regulation (or carbon tax) is expected to cover approximately 34 to 79 MMTCO₂ of the 2030 reduction obligation.³⁶ The State's short-lived climate pollutants strategy, which is for GHGs that remain in the atmosphere for shorter periods of time compared to longer-lived GHGs like CO₂, is expected to cover approximately 17 to 35 MMTCO_{2e}. The Renewable Portfolio Standard (RPS) with 50 percent renewable electricity by 2030 is expected to cover approximately 3 MMTCO₂. The mobile source strategy and sustainable freight action plan includes maintaining the existing vehicle GHG emissions standards, increasing the number of zero emission vehicles and improving the freight system efficiency, and is expected to cover approximately 11 to 13 MMTCO₂. CARB expects that the reduction in GHGs from doubling of the energy efficiency savings in natural gas and electricity end uses in the CEC 2015 Integrated Energy Policy Report by 2030 would cover approximately seven to 9 MMTCO₂ of the 2030 reduction obligation. The other strategies would be expected to cover the remaining 2030 reduction obligations.

³⁵ CARB, 2017 Scoping Plan, November 2017, p.100.

³⁶ California Air Resources Board, 2017 Scoping Plan, Appendix G, November 2017.

**TABLE IV.E-3
ESTIMATED STATEWIDE GREENHOUSE GAS EMISSIONS REDUCTIONS REQUIRED BY
HSC DIVISION 25.5**

Emissions Scenario	GHG Emissions (MMTCO _{2e})
2008 Scoping Plan (IPCC SAR)	
2020 BAU Forecast (CARB 2008 Scoping Plan Estimate)	596
2020 Emissions Target Set by AB 32 (i.e., 1990 level)	427
Reduction below Business-As-Usual necessary to achieve 1990 levels by 2020	169 (28.4%) ^a
2014 Scoping Plan (GHG Estimates Updated in 2014 to Reflect IPCC AR4)	
2020 BAU Forecast (CARB 2014 Scoping Plan Estimate)	509.4
2020 Emissions Target Set by AB 32 (i.e., 1990 level)	431
Reduction below NAT necessary to achieve 1990 levels by 2020	78.4 (15.4%) ^b
2017 Scoping Plan	
2030 BAU Forecast ("Reference Scenario," which includes 2020 GHG reduction policies and programs)	389
2030 Emissions Target Set by AB 32 (i.e., 40% below 1990 Level)	260
Reduction below Business-As-Usual Necessary to Achieve 40% below 1990 Level by 2030	129 (33.2%) ^c
MMTCO _{2e} = million metric tons of carbon dioxide equivalents	
^a 596 – 427 = 169 / 596 = 28.4%	
^b 509.4 – 431 = 78.4 / 509.4 = 15.4%	
^c 389 – 260 = 129 / 389 = 33.2%	
SOURCES: CARB, Final Supplement to the AB 32 Scoping Plan Functional Equivalent Document (FED), Attachment D, August 19, 2011; CARB, GHG 2020 Business-as-Usual (BAU) Emissions Projection, 2014 Edition, 2017, https://ww2.arb.ca.gov/ghg-bau , accessed April 2023; CARB, California's 2017 Climate Change Scoping Plan Update, November 2017.	

(iii) 2022 Climate Change Scoping Plan for Achieving Carbon Neutrality

The Scoping Plan is a GHG reduction roadmap developed and updated by the California Air Resources Board (CARB) at least once every five years, as required by Assembly Bill (AB) 32. It lays out the transformations needed across various sectors to reduce GHG emissions and reach the State's climate targets. CARB published the Final 2022 Scoping Plan for Achieving Carbon Neutrality (2022 Scoping Plan Update) in November 2022, as the third update to the initial plan that was adopted in 2008. The initial 2008 Scoping Plan laid out a path to achieve the AB 32 target of returning to 1990 levels of GHG emissions

by 2020, a reduction of approximately 15 percent below business as usual activities.³⁷ The 2008 Scoping Plan included a mix of incentives, regulations, and carbon pricing, laying out the portfolio approach to addressing climate change and clearly making the case for using multiple tools to meet California's GHG targets. The 2013 Scoping Plan Update (adopted in 2014) assessed progress toward achieving the 2020 target and made the case for addressing short-lived climate pollutants (SLCPs). The 2017 Scoping Plan Update, shifted focus to the newer Senate Bill (SB) 32 goal of a 40 percent reduction below 1990 levels by 2030 by laying out a detailed cost-effective and technologically feasible path to this target, and also assessed progress towards achieving the AB 32 goal of returning to 1990 GHG levels by 2020. The 2020 goal was ultimately reached in 2016, four years ahead of the schedule called for under AB 32.

The 2022 Scoping Plan Update is the most comprehensive and far-reaching Scoping Plan developed to date. It identifies a technologically feasible, cost-effective, and equity-focused path to achieve new targets for carbon neutrality by 2045 and to reduce anthropogenic GHG emissions to at least 85 percent below 1990 levels, while also assessing the progress California is making toward reducing its GHG emissions by at least 40 percent below 1990 levels by 2030, as called for in SB 32 and laid out in the 2017 Scoping Plan.³⁸ The 2030 target is an interim but important stepping stone along the critical path to the broader goal of deep decarbonization by 2045. The relatively longer path assessed in the 2022 Scoping Plan Update incorporates, coordinates, and leverages many existing and ongoing efforts to reduce GHGs and air pollution, while identifying new clean technologies and energy. Given the focus on carbon neutrality, the 2022 Scoping Plan Update also includes discussion for the first time of the natural and working lands sectors as sources for both sequestration and carbon storage, and as sources of emissions as a result of wildfires. A summary of the GHG emissions reductions and targets set forth under the 2022 Scoping Plan Update is provided in **Table IV.E-4, *Estimated Statewide Greenhouse Gas Emissions Reductions in the 2022 Scoping Plan.***

³⁷ CARB. 2008. Climate Change Scoping Plan.
https://ww2.arb.ca.gov/sites/default/files/classic/cc/scopingplan/document/adopted_scoping_plan.pdf

³⁸ CARB, California's 2017 Climate Change Scoping Plan, 2017,
ww2.arb.ca.gov/sites/default/files/classic/cc/scopingplan/scoping_plan_2017.pdf.

**TABLE IV.E-4
ESTIMATED STATEWIDE GREENHOUSE GAS EMISSIONS REDUCTIONS IN THE
2022 SCOPING PLAN**

Emissions Scenario	GHG Emissions (MMTCO _{2e})
2019	
2019 State GHG Emissions	404
2030	
2030 BAU Forecast	312
2030 GHG Emissions without Carbon Removal and Capture	233
2030 GHG Emissions with Carbon Removal and Capture	226
2030 Emissions Target Set by AB 32 (i.e., 1990 level by 2030)	260
Reduction below Business-As-Usual necessary to achieve 1990 levels by 2030	52 (16.7%) ^a
2045	
2045 BAU Forecast	266
2045 GHG Emissions without Carbon Removal and Capture	72
2045 GHG Emissions with Carbon Removal and Capture	(3)

MMTCO_{2e} = million metric tons of carbon dioxide equivalents; parenthetical numbers represent negative values.

^a $312 - 260 = 52 / 312 = 16.7\%$

SOURCE: CARB, Final 2022 Scoping Plan for Achieving Carbon Neutrality, November 2022.

The 2022 Scoping Plan Update reflects existing and recent direction in the Governor’s Executive Orders and State Statutes, which identify policies, strategies, and regulations in support of and implementation of the Scoping Plan. Among these include Executive Order B-55-18 and AB 1279 (The California Climate Crisis Act), which identify the 2045 carbon neutrality and GHG reduction targets required for the Scoping Plan. **Table IV.E-5, Major Climate Legislation and Executive Orders Enacted Since the 2017 Scoping Plan**, below, provides a summary of major climate legislation and executive orders issued since the adoption of the 2017 Scoping Plan.

**TABLE IV.E-5
MAJOR CLIMATE LEGISLATION AND EXECUTIVE ORDERS ENACTED SINCE THE
2017 SCOPING PLAN**

Bill/Executive Order	Summary
<p>Assembly Bill 1279 (AB 1279) (Muratsuchi, Chapter 337, Statutes of 2022) <i>The California Climate Crisis Act</i></p>	<p>AB 1279 establishes the policy of the state to achieve carbon neutrality as soon as possible, but no later than 2045; to maintain net negative GHG emissions thereafter; and to ensure that by 2045 statewide anthropogenic GHG emissions are reduced at least 85 percent below 1990 levels. The bill requires CARB to ensure that Scoping Plan updates identify and recommend measures to achieve carbon neutrality, and to identify and implement policies and strategies that enable CO₂ removal solutions and carbon capture, utilization, and storage (CCUS) technologies.</p> <p>This bill is reflected directly in 2022 Scoping Plan Update.</p>
<p>Senate Bill 905 (SB 905) (Caballero, Chapter 359, Statutes of 2022) <i>Carbon Capture, Removal, Utilization, and Storage Program</i></p>	<p>SB 905 requires CARB to create the Carbon Capture, Removal, Utilization, and Storage Program to evaluate, demonstrate, and regulate CCUS and carbon dioxide removal (CDR) projects and technology.</p> <p>The bill requires CARB, on or before January 1, 2025, to adopt regulations creating a unified state permitting application for approval of CCUS and CDR projects. The bill also requires the Secretary of the Natural Resources Agency to publish a framework for governing agreements for two or more tracts of land overlying the same geologic storage reservoir for the purposes of a carbon sequestration project.</p> <p>The 2022 Scoping Plan Update modeling reflects both CCUS and CDR contributions to achieve carbon neutrality.</p>
<p>Senate Bill 846 (SB 846) (Dodd, Chapter 239, Statutes of 2022) <i>Diablo Canyon Powerplant: Extension of Operations</i></p>	<p>SB 846 extends the Diablo Canyon Power Plant's sunset date by up to five additional years for each of its two units and seeks to make the nuclear power plant eligible for federal loans. The bill requires that the California Public Utilities Commission (CPUC) not include and disallow a load-serving entity from including in their adopted resource plan, the energy, capacity, or any attribute from the Diablo Canyon power plant.</p> <p>The 2022 Scoping Plan Update explains the emissions impact of this legislation.</p>
<p>Senate Bill (SB 1020) (Laird, Chapter 361, Statutes of 2022) <i>Clean Energy, Jobs, and Affordability Act of 2022</i></p>	<p>SB 1020 adds interim renewable energy and zero carbon energy retail sales of electricity targets to California end-use customers set at 90 percent in 2035 and 95 percent in 2040. It accelerates the timeline required to have 100 percent renewable energy and zero carbon energy procured to serve state agencies from the original target year of 2045 to 2035. This bill requires each state agency to individually achieve the 100 percent goal by 2035 with specified requirements. This bill requires the CPUC, California Energy Commission (CEC), and CARB, on or before December 1, 2023, and annually thereafter, to issue a joint reliability progress report that reviews system and local reliability.</p> <p>The bill also modifies the requirement for CARB to hold a portion of its Scoping Plan workshops in regions of the state with the most significant exposure to air pollutants by further specifying that this includes communities with minority populations or low-income communities in areas designated as being in extreme federal non-attainment.</p> <p>The 2022 Scoping Plan Update describes the implications of this legislation on emissions.</p>

**TABLE IV.E-5
MAJOR CLIMATE LEGISLATION AND EXECUTIVE ORDERS ENACTED SINCE THE
2017 SCOPING PLAN**

Bill/Executive Order	Summary
<p>Senate Bill 1137 (SB 1137) (Gonzales, Chapter 365, Statutes of 2022) <i>Oil & Gas Operations:</i> <i>Location Restrictions: Notice of Intention: Health protection zone: Sensitive receptors</i></p>	<p>SB 1137 prohibits the development of new oil and gas wells or infrastructure in health protection zones, as defined, except for purposes of public health and safety or other limited exceptions. The bill requires operators of existing oil and gas wells or infrastructure within health protection zones to undertake specified monitoring, public notice, and nuisance requirements. The bill requires CARB to consult and concur with the California Geologic Energy Management Division (CalGEM) on leak detection and repair plans for these facilities, adopt regulations as necessary to implement emission detection system standards, and collaborate with CalGEM on public access to emissions detection data.</p>
<p>Senate Bill 1075 (SB 1075) (Skinner, Chapter 363, Statutes of 2022) <i>Hydrogen: Green Hydrogen: Emissions of Greenhouse Gases</i></p>	<p>SB 1075 requires CARB, by June 1, 2024, to prepare an evaluation that includes: policy recommendations regarding the use of hydrogen, and specifically the use of green hydrogen, in California; a description of strategies supporting hydrogen infrastructure, including identifying policies that promote the reduction of GHGs and short-lived climate pollutants; a description of other forms of hydrogen to achieve emission reductions; an analysis of curtailed electricity; an estimate of GHG and emission reductions that could be achieved through deployment of green hydrogen through a variety of scenarios; an analysis of the potential for opportunities to integrate hydrogen production and applications with drinking water supply treatment needs; policy recommendations for regulatory and permitting processes associated with transmitting and distributing hydrogen from production sites to end uses; an analysis of the life-cycle GHG emissions from various forms of hydrogen production; and an analysis of air pollution and other environmental impacts from hydrogen distribution and end uses. This bill would inform the production of hydrogen at the scale called for in the 2022 Scoping Plan Update.</p>
<p>Assembly Bill 1757 (AB 1757) (Garcia, Chapter 341, Statutes of 2022) <i>California Global Warming Solutions Act of 2006: Climate Goal: Natural and Working Lands</i></p>	<p>AB 1757 requires the California Natural Resources Agency (CNRA), in collaboration with CARB, other state agencies, and an expert advisory committee, to determine a range of targets for natural carbon sequestration, and for nature-based climate solutions, that reduce GHG emissions in 2030, 2038, and 2045 by January 1, 2024. These targets must support state goals to achieve carbon neutrality and foster climate adaptation and resilience. This bill also requires CARB to develop standard methods for state agencies to consistently track GHG emissions and reductions, carbon sequestration, and additional benefits from natural and working lands over time. These methods will account for GHG emissions reductions of CO₂, methane, and nitrous oxide related to natural and working lands and the potential impacts of climate change on the ability to reduce GHG emissions and sequester carbon from natural and working lands, where feasible. This 2022 Scoping Plan Update describes the next steps and implications of this legislation for the natural and working lands sector.</p>

**TABLE IV.E-5
MAJOR CLIMATE LEGISLATION AND EXECUTIVE ORDERS ENACTED SINCE THE
2017 SCOPING PLAN**

Bill/Executive Order	Summary
<p>Senate Bill 1206 (SB 1206) (Skinner, Chapter 884, Statutes of 2022) <i>Hydrofluorocarbon gases: sale or distribution</i></p>	<p>SB 1206 mandates a stepped sales prohibition on newly produced high-global warming potential (GWP) hydrofluorocarbons (HFCs) to transition California's economy toward recycled and reclaimed HFCs for servicing existing HFC-based equipment. Additionally, SB 1206 also requires CARB to develop regulations to increase the adoption of very low-, i.e., GWP < 10, and no-GWP technologies in sectors that currently rely on higher-GWP HFCs.</p>
<p>Senate Bill 27 (SB 27) (Skinner, Chapter 237, Statutes of 2021) <i>Carbon Sequestration: State Goals: Natural and Working Lands: Registry of Projects</i></p>	<p>SB 27 requires CNRA, in coordination with other state agencies, to establish the Natural and Working Lands Climate Smart Strategy by July 1, 2023. This bill also requires CARB to establish specified CO₂ removal targets for 2030 and beyond as part of its Scoping Plan. Under SB 27, CNRA is to establish and maintain a registry to identify projects in the state that drive climate action on natural and working lands and are seeking funding. CNRA also must track carbon removal and GHG emission reduction benefits derived from projects funded through the registry. This bill is reflected directly in 2022 Scoping Plan Update as CO₂ removal targets for 2030 and 2045 in support of carbon neutrality.</p>
<p>Senate Bill 596 (SB 596) (Becker, Chapter 246, Statutes of 2021) <i>Greenhouse Gases: Cement Sector: Net-zero Emissions Strategy</i></p>	<p>SB 596 requires CARB, by July 1, 2023, to develop a comprehensive strategy for the state's cement sector to achieve net-zero-emissions of GHGs associated with cement used within the state as soon as possible, but no later than December 31, 2045. The bill establishes an interim target of 40 percent below the 2019 average GHG intensity of cement by December 31, 2035. Under SB 596, CARB must:</p> <ul style="list-style-type: none"> • Define a metric for GHG intensity and establish a baseline from which to measure GHG intensity reductions. • Evaluate the feasibility of the 2035 interim target (40 percent reduction in GHG intensity) by July 1, 2028. • Coordinate and consult with other state agencies. • Prioritize actions that leverage state and federal incentives. • Evaluate measures to support market demand and financial incentives to encourage the production and use of cement with low GHG intensity. <p>The 2022 Scoping Plan Update modeling is designed to achieve these outcomes.</p>
<p>Executive Order N-82-20</p>	<p>Governor Newsom signed Executive Order N-82-20 in October 2020 to combat the climate and biodiversity crises by setting a statewide goal to conserve at least 30 percent of California's land and coastal waters by 2030. The Executive Order also instructed the CNRA, in consultation with other state agencies, to develop a Natural and Working Lands Climate Smart Strategy that serves as a framework to advance the state's carbon neutrality goal and build climate resilience. In addition to setting a statewide conservation goal, the Executive Order directed CARB to update the target for natural and working lands in support of carbon neutrality as part of this Scoping Plan, and to take into consideration the NWL Climate Smart Strategy.</p>

**TABLE IV.E-5
MAJOR CLIMATE LEGISLATION AND EXECUTIVE ORDERS ENACTED SINCE THE
2017 SCOPING PLAN**

Bill/Executive Order	Summary
	<p>CO2 Executive Order N-82-20 also calls on the CNRA, in consultation with other state agencies, to establish the California Biodiversity Collaborative (Collaborative). The Collaborative shall be made up of governmental partners, California Native American tribes, experts, business and community leaders, and other stakeholders from across the state. State agencies will consult the Collaborative on efforts to:</p> <ul style="list-style-type: none"> • Establish a baseline assessment of California’s biodiversity that builds upon existing data and can be updated over time. • Analyze and project the impact of climate change and other stressors in California’s biodiversity. • Inventory current biodiversity efforts across all sectors and highlight opportunities for additional action to preserve and enhance biodiversity. <p>CNRA also is tasked with advancing efforts to conserve biodiversity through various actions, such as streamlining the state’s process to approve and facilitate projects related to environmental restoration and land management. The California Department of Food and Agriculture (CDFA) is directed to advance efforts to conserve biodiversity through measures such as reinvigorating populations of pollinator insects, which restore biodiversity and improve agricultural production.</p> <p>The Natural and Working Lands Climate Smart Strategy informs 2022 Scoping Plan Update.</p>
Executive Order N-79-20	<p>Governor Newsom signed Executive Order N-79-20 in September 2020 to establish targets for the transportation sector to support the state in its goal to achieve carbon neutrality by 2045. The targets established in this Executive Order are:</p> <ul style="list-style-type: none"> • 100 percent of in-state sales of new passenger cars and trucks will be zero-emission by 2035. • 100 percent of medium- and heavy-duty vehicles will be zero-emission by 2045 for all operations where feasible, and by 2035 for drayage trucks. • 100 percent of off-road vehicles and equipment will be zero-emission by 2035 where feasible. <p>The Executive Order also tasked CARB to develop and propose regulations that require increasing volumes of zero- electric passenger vehicles, medium- and heavy-duty vehicles, drayage trucks, and off-road vehicles toward their corresponding targets of 100 percent zero-emission by 2035 or 2045, as listed above.</p> <p>The 2022 Scoping Plan Update modeling reflects achieving these targets.</p>

**TABLE IV.E-5
MAJOR CLIMATE LEGISLATION AND EXECUTIVE ORDERS ENACTED SINCE THE
2017 SCOPING PLAN**

Bill/Executive Order	Summary
Executive Order N-19-19	<p>Governor Newsom signed Executive Order N-19-19 in September 2019 to direct state government to redouble its efforts to reduce GHG emissions and mitigate the impacts of climate change while building a sustainable, inclusive economy. This Executive Order instructs the Department of Finance to create a Climate Investment Framework that:</p> <ul style="list-style-type: none"> • Includes a proactive strategy for the state’s pension funds that reflects the increased risks to the economy and physical environment due to climate change. • Provides a timeline and criteria to shift investments to companies and industry sectors with greater growth potential based on their focus of reducing carbon emissions and adapting to the impacts of climate change. • Aligns with the fiduciary responsibilities of the California Public Employees’ Retirement System, California State Teachers’ Retirement System, and the University of California Retirement Program. <p>Executive Order N-19-19 directs the State Transportation Agency to leverage more than \$5 billion in annual state transportation spending to help reverse the trend of increased fuel consumption and reduce GHG emissions associated with the transportation sector. It also calls on the Department of General Services to leverage its management and ownership of the state’s 19 million square feet in managed buildings, 51,000 vehicles, and other physical assets and goods to minimize state government’s carbon footprint. Finally, it tasks CARB with accelerating progress toward California’s goal of five million ZEV sales by 2030 by:</p> <ul style="list-style-type: none"> • Developing new criteria for clean vehicle incentive programs to encourage manufacturers to produce clean, affordable cars. • Proposing new strategies to increase demand in the primary and secondary markets for ZEVs. • Considering strengthening existing regulations or adopting new ones to achieve the necessary GHG reductions from within the transportation sector. <p>The 2022 Scoping Plan Update modeling reflects efforts to accelerate ZEV deployment.</p>
<p>Senate Bill 576 (SB 576) (Umberg, Chapter 374, Statutes of 2019)</p> <p><i>Coastal Resources: Climate Ready Program and Coastal Climate Change Adaptation, Infrastructure and Readiness Program</i></p>	<p>Sea level rise, combined with storm-driven waves, poses a direct risk to the state’s coastal resources, including public and private real property and infrastructure. Rising marine waters threaten sensitive coastal areas, habitats, the survival of threatened and endangered species, beaches, other recreation areas, and urban waterfronts. SB 576 mandates that the Ocean Protection Council develop and implement a coastal climate adaptation, infrastructure, and readiness program to improve the climate change resiliency of California’s coastal communities, infrastructure, and habitat. This bill also instructs the State Coastal Conservancy to administer the Climate Ready Program, which addresses the impacts and potential impacts of climate change on resources within the conservancy’s jurisdiction.</p>

**TABLE IV.E-5
MAJOR CLIMATE LEGISLATION AND EXECUTIVE ORDERS ENACTED SINCE THE
2017 SCOPING PLAN**

Bill/Executive Order	Summary
<p>Assembly Bill 65 (AB 65) (Petrie- Norris, Chapter 347, Statutes of 2019) <i>Coastal Protection: Climate Adaption: Project Prioritization: Natural Infrastructure: Local General Plans</i></p>	<p>This bill requires the State Coastal Conservancy, when it allocates any funding appropriated pursuant to the California Drought, Water, Parks, Climate, Coastal Protection, and Outdoor Access For All Act of 2018, to prioritize projects that use natural infrastructure in coastal communities to help adapt to climate change. The bill requires the conservancy to provide information to the Office of Planning and Research on any projects funded pursuant to the above provision to be considered for inclusion into the clearinghouse for climate adaption information. The bill authorizes the conservancy to provide technical assistance to coastal communities to better assist them with their projects that use natural infrastructure.</p>
<p>Executive Order B-55-18</p>	<p>Governor Brown signed Executive Order B-55-18 in September 2018 to establish a statewide goal to achieve carbon neutrality as soon as possible, and no later than 2045, and to achieve and maintain net negative emissions thereafter. Policies and programs undertaken to achieve this goal shall:</p> <ul style="list-style-type: none"> • Seek to improve air quality and support the health and economic resiliency of urban and rural communities, particularly low-income and disadvantaged communities. • Be implemented in a manner that supports climate adaptation and biodiversity, including protection of the state’s water supply, water quality, and native plants and animals. <p>This Executive Order also calls for CARB to:</p> <ul style="list-style-type: none"> • Develop a framework for implementation and accounting that tracks progress toward this goal. • Ensure future Scoping Plans identify and recommend measures to achieve the carbon neutrality goal. <p>The 2022 Scoping Plan Update is designed to achieve carbon neutrality no later than 2045 and the modeling includes technology and fuel transitions to achieve that outcome.</p>
<p>Senate Bill 100 (SB 100) (De León, Chapter 312, Statutes of 2018) <i>California Renewables Portfolio Standard Program: emissions of greenhouse gases</i></p>	<p>Under SB 100, the CPUC, CEC, and CARB shall use programs under existing laws to achieve 100 percent clean electricity. The statute requires these agencies to issue a joint policy report on SB 100 every four years. The first of these reports was issued in 2021.</p> <p>The 2022 Scoping Plan Update reflects the SB 100 Core Scenario resource mix with a few minor updates.</p>
<p>Assembly Bill 2127 (AB 2127) (Ting, Chapter 365, Statutes of 2018) <i>Electric Vehicle Charging Infrastructure: Assessment</i></p>	<p>This bill requires the CEC, working with CARB and the CPUC, to prepare and biennially update a statewide assessment of the electric vehicle charging infrastructure needed to support the levels of electric vehicle adoption required for the state to meet its goals of putting at least 5 million zero-emission vehicles on California roads by 2030 and of reducing emissions of GHGs to 40 percent below 1990 levels by 2030. The bill requires the CEC to regularly seek data and input from stakeholders relating to electric vehicle charging infrastructure.</p> <p>This bill supports the deployment of ZEVs as modeled in 2022 Scoping Plan Update.</p>

**TABLE IV.E-5
MAJOR CLIMATE LEGISLATION AND EXECUTIVE ORDERS ENACTED SINCE THE
2017 SCOPING PLAN**

Bill/Executive Order	Summary
<p>Senate Bill 30 (SB 30) (Lara, Chapter 614, Statutes of 2018) <i>Insurance: Climate Change</i></p>	<p>This bill requires the Insurance Commissioner to convene a working group to identify, assess, and recommend risk transfer market mechanisms that, among other things, promote investment in natural infrastructure to reduce the risks of climate change related to catastrophic events, create incentives for investment in natural infrastructure to reduce risks to communities, and provide mitigation incentives for private investment in natural lands to lessen exposure and reduce climate risks to public safety, property, utilities, and infrastructure. The bill requires the policies recommended to address specified questions.</p>
<p>Assembly Bill 2061 (AB 2061) (Frazier, Chapter 580, Statutes of 2018) <i>Near-zero-emission and Zero-emission Vehicles</i></p>	<p>Existing state and federal law sets specified limits on the total gross weight imposed on the highway by a vehicle with any group of two or more consecutive axles. Under existing federal law, the maximum gross vehicle weight of that vehicle may not exceed 82,000 pounds. AB 2061 authorizes a near-zero- emission vehicle or a zero-emission vehicle to exceed the weight limits on the power unit by up to 2,000 pounds.</p> <p>This bill supports the deployment of cleaner trucks as modeled in this 2022 Scoping Plan Update.</p>

The 2022 Scoping Plan Scenario identifies the need to accelerate AB32’s 2030 target, from 40 percent to 48 percent below 1990 levels. Cap-and-Trade regulation continues to play a large factor in the reduction of near-term emissions for meeting the 2030 reduction target. Every sector of the economy will need to begin to transition in this decade to meet these GHG reduction goals and achieve carbon neutrality no later than 2045. The 2022 Scoping Plan Update approaches decarbonization from two perspectives, managing a phasedown of existing energy sources and technologies, as well as increasing, developing, and deploying alternative clean energy sources and technology. The Scoping Plan Scenario is summarized in Table 2-1 starting on page 72 of the Scoping Plan. It includes references to relevant statutes and Executive Orders, although it is not comprehensive of all existing new authorities for directing or supporting the actions described. Table 2-1 identifies actions related to a variety of sectors such as: smart growth and reductions in Vehicle Miles Traveled (VMT); light-duty vehicles (LDV) and zero-emission vehicles (ZEV); truck ZEVs; reduce fossil energy, emissions, and GHGs for aviation ocean-going vessels, port operations, freight and passenger rail, oil and gas extraction; and petroleum refining; improvements in electricity generation; electrical appliances in new and existing residential and commercial buildings; electrification and emission reductions across industries such as the for food products, construction equipment, chemicals and allied products, pulp and paper, stone/clay/glass/cement, other industrial manufacturing, and agriculture; retiring of combined heat and power facilities; low carbon fuels for transportation, business, and industry; improvements in non-combustion methane emissions, and introduction of low GWP refrigerants.

Achieving the targets described in the 2022 Scoping Plan Update will require continued commitment to and successful implementation of existing policies and programs, and identification of new policy tools and technical solutions to go further, faster. California’s Legislature and state agencies will continue to collaborate to achieve the state’s climate, clean air, equity, and broader economic and environmental protection goals. It will be necessary to maintain and strengthen this collaborative effort, and to draw upon the assistance of the federal government, regional and local governments, tribes, communities, academic institutions, and the private sector to achieve the state’s near-term and longer-term emission reduction goals and a more equitable future for all Californians. The Scoping Plan acknowledges that the path forward is not dependent on one agency, one state, or even one country. However, the State can lead by engaging Californians and demonstrating how actions at the state, regional, and local levels of governments, as well as action at community and individual levels, can contribute to addressing the challenge.

Aligning local jurisdiction action with state-level priorities to tackle climate change and the outcomes called for in the 2022 Scoping Plan Update is critical to achieving the statutory targets for 2030 and 2045. The 2022 Scoping Plan Update discusses the role of local governments in meeting the State’s GHG reductions goals. Local governments have the primary authority to plan, zone, approve, and permit how and where land is developed to accommodate population growth, economic growth, and the changing needs of their jurisdictions. They also make critical decisions on how and when to deploy transportation infrastructure, and can choose to support transit, walking, bicycling, and neighborhoods that do not force people into cars. Local governments also have the option to adopt building ordinances that exceed statewide building code requirements, and play a critical role in facilitating the rollout of ZEV infrastructure. As a result, local government decisions play a critical role in supporting state-level measures to contain the growth of GHG emissions associated with the transportation system and the built environment—the two largest GHG emissions sectors over which local governments have authority. The City has taken the initiative in combating climate change by developing programs and regulations such as the Green New Deal and Green Building Code. Each of these is discussed further below.

(e) *Cap-and-Trade Program*

The Climate Change Scoping Plan identifies a Cap-and-Trade Program as one of the strategies California would employ to reduce GHG emissions. CARB asserts that this program will help put California on the path to meet its goal of ultimately achieving an 80 percent reduction from 1990 levels by 2050. Under Cap-and-Trade, an overall limit on GHG emissions from capped sectors is established and facilities subject to the cap will be able to trade permits to emit GHGs.

CARB designed and adopted a California Cap-and-Trade Program³⁹ pursuant to its authority under AB 32. The Cap-and-Trade Program is designed to reduce GHG

³⁹ California Code of Regulations 17, Section 95800 to 96023.

emissions from public and private major sources (deemed “covered entities”) by setting a firm cap on Statewide GHG emissions and employing market mechanisms to achieve the State’s emission-reduction mandates. The Statewide cap for GHG emissions from the capped sectors⁴⁰ (e.g., electricity generation, petroleum refining, and cement production) commenced in 2013 and will decline over time, achieving GHG emission reductions throughout the Program’s duration.

Under the Cap-and-Trade Program, CARB issues allowances equal to the total amount of allowable emissions over a given compliance period and distributes these to regulated entities. Covered entities that emit more than 25,000 MTCO_{2e} per year must comply with the Cap-and-Trade Program.⁴¹ Triggering of the 25,000 MTCO_{2e} per year “inclusion threshold” is measured against a subset of emissions reported and verified under the California Regulation for the Mandatory Reporting of Greenhouse Gas Emissions (Mandatory Reporting Rule or “MRR”).⁴²

Each covered entity with a compliance obligation is required to surrender “compliance instruments”⁴³ for each MTCO_{2e} of GHG they emit. Covered entities are allocated free allowances in whole or part (if eligible), and can buy allowances at auction, purchase allowances from others, or purchase offset credits.

The Cap-and-Trade Regulation provides a firm cap, ensuring that the Statewide emission limits will not be exceeded. In sum, the Cap-and-Trade Program will achieve aggregate, rather than site-specific or project-level, GHG emissions reductions. Also, due to the regulatory framework adopted by CARB in AB 32, the reductions attributed to the Cap-and-Trade Program can change over time depending on the State’s emissions forecasts and the effectiveness of direct regulatory measures.

The Cap-and-Trade Program covers the GHG emissions associated with electricity consumed in California, whether generated in-state or imported.⁴⁴ Accordingly, for projects that are subject to the CEQA, GHG emissions from electricity consumption are covered by the Cap-and-Trade Program. The Cap-and-Trade Program also covers fuel suppliers (natural gas and propane fuel providers and transportation fuel providers) to address emissions from such fuels and from combustion of other fossil fuels not directly covered at large sources in the Program’s first compliance period.⁴⁵

The Program applies to emissions that cover approximately 80 percent of the State’s GHG emissions. Demonstrating the efficacy of AB 32 policies, California achieved its

⁴⁰ California Code of Regulations 17, Section 95811, 95812.

⁴¹ California Code of Regulations 17, Section 95812.

⁴² California Code of Regulations 17, Section 95100–95158.

⁴³ Compliance instruments are permits to emit, the majority of which will be “allowances,” but entities also are allowed to use CARB-approved offset credits to meet up to 8% of their compliance obligations.

⁴⁴ California Code of Regulations 17, Section 95811(b).

⁴⁵ California Code of Regulations 17, Section 95811, 95812(d).

2020 GHG Reduction Target four years earlier than mandated. The largest reductions were the result of increased renewable electricity in the electricity sector, which is a covered sector in the Cap-and-Trade Program.

AB 398 was enacted in 2017 to extend and clarify the role of the State's Cap-and-Trade Program through December 31, 2030. As part of AB 398, refinements were made to the Cap-and-Trade program to establish updated protocols and allocation of proceeds to reduce GHG emissions.

(f) *Energy-Related (Stationary) Sources*

(i) *Emission Performance Standards*

SB 1368, signed September 29, 2006, is a companion bill to AB 32, which requires the CPUC and the CEC to establish GHG emission performance standards for the generation of electricity. These standards also generally apply to power that is generated outside of California and imported into the State. SB 1368 provides a mechanism for reducing the emissions of electricity providers, thereby assisting CARB to meet its mandate under AB 32.

(ii) *Renewables Portfolio Standard*

SB 1078 (Chapter 516, Statutes of 2002) required retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide at least 20 percent of their supply from renewable sources by 2017 as a RPS. Subsequent amendments provided additional targets throughout the years. Most recently, on October 7, 2015, SB 350 (Chapter 547, Statutes of 2015), also known as the Clean Energy and Pollution Reduction Act, further increased the RPS to 50 percent by 2030. The legislation also included interim targets of 40 percent by 2024 and 45 percent by 2027. SB 350 also requires the State to double Statewide energy efficiency savings in electricity and natural gas end uses by 2030. The 2017 Scoping Plan incorporated the SB 350 standards and estimated the GHG reductions in the electric section would account for approximately 21 percent of the 2017 Scoping Plan reductions.⁴⁶ On September 10, 2018, SB 100, provided additional RPS targets of 44 percent by 2024, 52 percent by 2027, and 60 percent by 2030, and that CARB should plan for 100 percent eligible renewable energy resources and zero-carbon resources by 2045.⁴⁷

⁴⁶ CARB, 2017 Scoping Plan, Table 3, p. 31, November 2017. Calculated as: $(108 - 53) / 260 = 21$ percent.

⁴⁷ California Legislative Information, *SB-100* California Renewables Portfolio Standard Program: Emissions of Greenhouse Gases.

(iii) Assembly Bill 1279 (The California Climate Crisis Act)

The Legislature enacted AB 1279⁴⁸, The California Climate Crisis Act, on September 16, 2022. AB 1279 establishes the policy of the State to achieve net zero GHG emissions, carbon neutrality⁴⁹, as soon as possible, but no later than 2045 and achieve and maintain net negative GHG emissions thereafter. Additionally, AB 1279 ensures that by 2045 Statewide anthropogenic greenhouse gas emissions are reduced at least 85 percent below 1990 levels. SB 1279 also requires CARB to ensure that the 2022 Scoping Plan identifies and recommends measures to achieve carbon neutrality, and to identify and implement policies and strategies for carbon dioxide removal solutions and carbon capture, utilization, and storage technologies. It also requires CARB to submit an annual report on progress in achieving the 2022 Scoping Plan's goals.

*(g) Mobile Sources**(i) Pavley Standards*

AB 1493 (Chapter 200, Statutes of 2002), enacted on July 22, 2002, required CARB to set GHG emission standards for passenger vehicles, light duty trucks, and other vehicles whose primary use is non-commercial personal transportation manufactured in and after 2009. In 2004, CARB approved the Pavley regulation to require automakers to control GHG emissions from new passenger vehicles for the 2009 through 2016 model years. Upon adoption of subsequent federal GHG standards by the USEPA that preserved the benefits of the Pavley regulations, the Pavley regulations were revised to accept compliance with the federal standards as compliance with California's standards in the 2012 through 2016 model years. This is referred to as the "deemed to comply" option.

In January 2012, CARB approved greenhouse gas emission regulations which require further reductions in passenger greenhouse gas emissions for 2017 and subsequent vehicle model years. As noted above, in August 2012, the USEPA and USDOT adopted GHG emission standards for model year 2017 through 2025 vehicles.⁵⁰ On November 15, 2012, CARB approved an amendment that allows manufacturers to comply with the 2017–2025 national standards to meet State law. Automobile manufacturers generally comply with these standards through a combination of improved energy efficiency in vehicle equipment (e.g., air conditioning systems) and engines as well as sleeker aerodynamics, use of strong but lightweight materials, and lower-rolling resistance tires.⁵¹

⁴⁸ California Legislative Information, 2022. AB-1279 The California Climate Crisis Act. https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=202120220AB1279. Accessed January 2023.

⁴⁹ *Carbon neutrality* means "net zero" emissions of GHGs. In other words, it means that GHG emissions generated by sources such as transportation, power plants, and industrial processes must be less than or equal to the amount of carbon dioxide that is stored, both in natural sinks and through mechanical sequestration. AB 1279 uses the terminology net zero and the 2022 Scoping Plan uses the terminology carbon neutrality or carbon neutral. These terms mean the same thing and are used interchangeably.

⁵⁰ United States Environmental Protection Agency, 2012.

⁵¹ CARB, California's Advanced Clean Cars Midterm Review, pp. ES-17, C-9.

In 2018, the USEPA proposed the Safer Affordable Fuel-Efficient Vehicles Rule (SAFE), which would roll back fuel economy standards and revoke California's waiver. The rule amended certain average fuel economy and GHG standards for passenger cars covering model years 2021 through 2026. On March 30, 2020, the SAFE Rule was finalized and published in the Federal Register, commencing a review period. Subsequent legal challenges from a coalition of states, including California, and private industry groups were issued. In August 2021, USEPA proposed to revise and strengthen the emissions standards for passenger cars and light trucks for model years 2023–2026.

On September 27, 2019, the USEPA withdrew the waiver it had previously provided to California for the State's GHG and ZEV programs under Section 209 of the Clean Air Act.⁵² The withdrawal of the waiver was effective November 26, 2019. In response, several states including California filed a lawsuit challenging the withdrawal of the EPA waiver.⁵³ On March 14, 2022, the USEPA issued a notice of decision to reinstate California's Clean Air Act waiver for its Advanced Clean Car regulations.⁵⁴

(ii) *California Low Carbon Fuel Standard*

Executive Order S-01-07 was enacted on January 18, 2007. The order mandates the following: (1) that a Statewide goal be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020; and (2) that a LCFS for transportation fuels be established in California. The final regulation was approved by the Office of Administrative Law and filed with the Secretary of State on January 12, 2010; the LCFS became effective on the same day. In September 2015, CARB approved the re-adoption of the LCFS, which became effective on January 1, 2016, to address procedural deficiencies in the way the original regulation was adopted.⁵⁵

The development of the 2017 Scoping Plan has identified LCFS as a regulatory measure to reduce GHG emission to meet the 2030 emissions target. In September 2018, the standards were amended by CARB to require a 20 percent reduction in carbon intensity by 2030, aligning with California's 2030 targets set by SB 32.⁵⁶

⁵² 84 FR 51310.

⁵³ United States District Court for the District Court of Columbia, State of California vs. Chao, Case 1:19-cv-02826, 2019.

⁵⁴ California State Motor Vehicle Pollution Control Standards; Advanced Clean Car Program; Reconsideration of a Previous Withdrawal of a Waiver of Preemption; Notice of Decision, 87 Fed. Reg. 14,332 (Mar. 14, 2022).

⁵⁵ CARB, Low Carbon Fuel Standard - About, <https://ww2.arb.ca.gov/our-work/programs/low-carbon-fuel-standard/about>, accessed September 1, 2022.

⁵⁶ CARB, CARB amends Low Carbon Fuel Standard for wider impact, 2018, <https://ww2.arb.ca.gov/index.php/news/carb-amends-low-carbon-fuel-standard-wider-impact>, accessed September 1, 2022.

(iii) *Advanced Clean Cars Regulations*

In 2012, CARB approved the Advanced Clean Cars program, an emissions-control program for model years 2015–2025.⁵⁷ The components of the Advanced Clean Cars program include the Low-Emission Vehicle (LEV) regulations that reduce criteria pollutants and GHG emissions from light- and medium-duty vehicles, and the Zero-Emission Vehicle (ZEV) regulation, which requires manufacturers to produce an increasing number of pure ZEVs (meaning battery electric and fuel cell electric vehicles), with provisions to also produce plug-in hybrid electric vehicles (PHEV) in the 2018 through 2025 model years.⁵⁸ During the March 2017 Midterm Review, CARB voted unanimously to continue with the vehicle GHG emission standards and the ZEV program for cars and light trucks sold in California through 2025.⁵⁹ Effective November 26, 2019, the federal SAFE Vehicles Rule Part One: One National Program withdrew the California waiver for the GHG and ZEV programs under section 209 of the Clean Air Act, which revokes California's authority to implement the Advanced Clean Cars and ZEV mandates. In response, several states including California filed a lawsuit challenging the withdrawal of the EPA waiver.⁶⁰ On March 14, 2022, the USEPA issued a notice of decision to reinstate California's Clean Air Act waiver for its Advanced Clean Car regulations.⁶¹

In addition, Governor Gavin Newsom signed an executive order (Executive Order No. N-79-20) on September 23, 2020 that would phase out sales of new gas-powered passenger cars by 2035 in California with an additional 10-year transition period for heavy vehicles. The State would not restrict used car sales, nor forbid residents from owning gas-powered vehicles. In accordance with the Executive Order, CARB is developing a 2020 Mobile Source Strategy, a comprehensive analysis that presents scenarios for possible strategies to reduce the carbon, toxic and unhealthy pollution from cars, trucks, equipment, and ships. The strategies will provide important information for numerous regulations and incentive programs going forward by conveying what is necessary to address the aggressive emission reduction requirements.

The primary mechanism for achieving the ZEV target for passenger cars and light trucks is CARB's Advanced Clean Cars II (ACC II) Program. The ACC II regulations will focus on post-2025 model year light-duty vehicles, as requirements are already in place for new

⁵⁷ CARB, Advanced Clean Cars Program - About, <https://ww2.arb.ca.gov/our-work/programs/advanced-clean-cars-program/about>, accessed September 1, 2022.

⁵⁸ CARB, Advanced Clean Cars Program - About, <https://ww2.arb.ca.gov/our-work/programs/advanced-clean-cars-program/about>, accessed September 1, 2022

⁵⁹ CARB, News Release: CARB finds vehicle standards are achievable and cost-effective, ww2.arb.ca.gov/news/carb-finds-vehicle-standards-are-achievable-and-cost-effective, accessed September 1, 2022.

⁶⁰ United States District Court for the District Court of Columbia, State of California vs. Chao, Case 1:19-cv-02826, 2019.

⁶¹ California State Motor Vehicle Pollution Control Standards; Advanced Clean Car Program; Reconsideration of a Previous Withdrawal of a Waiver of Preemption; Notice of Decision, 87 Fed. Reg. 14,332 (Mar. 14, 2022).

vehicles through the 2025 model year. A rulemaking package is anticipated to be presented to the Board in June 2022.

(iv) *Sustainable Communities and Climate Protection Act (SB 375)*

The Sustainable Communities and Climate Protection Act of 2008, or SB 375 (Chapter 728, Statutes of 2008), establishes mechanisms for the development of regional targets for reducing passenger vehicle GHG emissions, was adopted by the State on September 30, 2008. SB 375 finds that the “transportation sector is the single largest contributor of greenhouse gases of any sector.”⁶² Under SB 375, CARB is required, in consultation with the Metropolitan Planning Organizations, to set regional GHG reduction targets for the passenger vehicle and light-duty truck sector for 2020 and 2035. SCAG is the Metropolitan Planning Organization in which the City of Los Angeles is located. CARB set targets for 2020 and 2035 for each of the 18 metropolitan planning organization regions in 2010, and updated them in 2018.⁶³ In March 2018, the CARB updated the SB 375 targets for the SCAG region to require an eight percent reduction by 2020 and a 19 percent reduction by 2035 in per capita passenger vehicle GHG emissions.⁶⁴ As discussed further below, SCAG has adopted an updated Regional Transportation Plan / Sustainable Community Strategies (RTP/SCS) subsequent to the update of the emission targets. The 2020–2045 RTP/SCS is expected to reduce per capita transportation emissions by 19 percent by 2035, which is consistent with SB 375 compliance with respect to meeting the State’s GHG emission reduction goals.⁶⁵

Under SB 375, the target must be incorporated within that region’s Regional Transportation Plan (RTP), which is used for long-term transportation planning, in a Sustainable Communities Strategy (SCS). Certain transportation planning and programming activities would then need to be consistent with the SCS; however, SB 375 expressly provides that the SCS does not regulate the use of land, and further provides that local land use plans and policies (e.g., general plans) are not required to be consistent with either the RTP or SCS.

(v) *Senate Bill 743*

Governor Brown signed Senate Bill (SB) 743 in 2013, which creates a process to change the way that transportation impacts are analyzed under CEQA. Specifically, SB 743 requires the Office of Planning and Research (OPR) to amend the CEQA Guidelines to provide an alternative to level of service (LOS) methodology for evaluating transportation

⁶² State of California, Senate Bill No. 375, September 30, 2008.

⁶³ CARB, Sustainable Communities & Climate Protection Program – About, <https://ww2.arb.ca.gov/our-work/programs/sustainable-communities-climate-protection-program/about>, accessed September 1, 2021.

⁶⁴ CARB, SB 375 Regional Greenhouse Gas Emissions Reduction Targets, <https://www.arb.ca.gov/cc/sb375/finaltargets2018.pdf>, accessed September 1, 2021.

⁶⁵ SCAG, Final 2020–2045 RTP/SCS, Chapter 0: Making Connections, page 5, 2020.

impacts. Particularly within areas served by transit, the required alternative criteria must “promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses.” Measurements of transportation impacts may include “vehicle miles traveled, vehicle miles traveled per capita, automobile trip generation rates, or automobile trips generated.”

(h) *Building Standards and Other Regulations*

(vi) *California Appliance Efficiency Regulations*

The Appliance Efficiency Regulations (Title 20, Sections 1601 through 1608), adopted by the CEC, include standards for new appliances (e.g., refrigerators) and lighting, if they are sold or offered for sale in California. These standards include minimum levels of operating efficiency, and other cost-effective measures, to promote the use of energy- and water-efficient appliances.

(vii) *Title 24, Building Standards Code and CALGreen Code*

The CEC first adopted the Energy Efficiency Standards for Residential and Nonresidential Buildings (CCR, Title 24, Part 6) in 1978 in response to a legislative mandate to reduce energy consumption in the State. Although not originally intended to reduce GHG emissions, increased energy efficiency, and reduced consumption of electricity, natural gas, and other fuels would result in fewer GHG emissions from residential and nonresidential buildings subject to the standard. The standards are updated periodically to allow for the consideration and inclusion of new energy efficiency technologies and methods.

Part 11 of the Title 24 Building Standards is referred to as the California Green Building Standards (CALGreen) Code and was developed to help the State achieve its GHG reduction goals under HSC Division 25.5 (e.g., AB 32) by codifying standards for reducing building-related energy, water, and resource demand, which in turn reduces GHG emissions from energy, water, and resource demand. The purpose of the CALGreen Code is to “improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices in the following categories: (1) Planning and design; (2) Energy efficiency; (3) Water efficiency and conservation; (4) Material conservation and resource efficiency; and (5) Environmental air quality.”⁶⁶ The CALGreen Code is not intended to substitute for or be identified as meeting the certification requirements of any green building program that is not established and adopted by the California Building Standards Commission. The CALGreen Code establishes mandatory measures for new residential and non-residential

⁶⁶ California Building Standards Commission, 2010 California Green Building Standards Code, 2010.

buildings. Such mandatory measures include energy efficiency, water conservation, material conservation, planning and design and overall environmental quality.⁶⁷

On May 9, 2018, the CEC adopted the 2019 Title 24 Standards, which went into effect on January 1, 2020. The 2019 standards continue to improve upon the previous (2016) Title 24 standards for new construction of, and additions and alterations to, residential and non-residential buildings.⁶⁸ The 2019 Title 24 Standards ensure that builders use the most energy efficient and energy conserving technologies and construction practices. As described in the 2019 Title 24 Standards represent “challenging but achievable design and construction practices” that represent “a major step towards meeting the Zero Net Energy (ZNE) goal.” Single-family homes built with the 2019 Title 24 Standards are projected to use approximately seven percent less energy due to energy efficiency measures versus those built under the 2016 standards. Once the mandated rooftop solar electricity generation is factored in, homes built under the 2019 standards will use about 53 percent less energy than those under the 2016 standards. Nonresidential buildings are projected to use approximately 30 percent less energy due mainly to lighting upgrades.⁶⁹ Compliance with Title 24 is enforced through the building permit process.

On August 11, 2021, the CEC adopted the 2022 Title 24 Standards, which were approved by the California Building Standards Commission for inclusion into the California Building Standards Code in December 2021. The 2022 standards encourage efficient electric heat pumps, establishes electric-ready requirements for new homes, expands solar photovoltaic and battery storage standards, strengthens ventilation standards, and more. Buildings whose permit applications are applied for on or after January 1, 2023, must comply with the 2022 standards.⁷⁰

(i) *CEQA Guidelines*

In August 2007, the California State Legislature adopted Senate Bill 97 (SB 97) (Chapter 185, Statutes of 2007), requiring the Governor’s OPR to prepare and transmit new CEQA guidelines for the mitigation of GHG emissions or the effects of GHG emissions to the Resources Agency by July 1, 2009. In response to SB 97, the OPR adopted CEQA guidelines that became effective on March 18, 2010.

However, neither a threshold of significance nor any specific mitigation measures are included or provided in the guidelines.⁷¹ The guidelines require a lead agency to make a good-faith effort, based on the extent possible on scientific and factual data, to describe, calculate, or estimate the amount of GHG emissions resulting from a project.

⁶⁷ California Building Standards Commission, 2010 California Green Building Standards Code, 2010.

⁶⁸ CEC, 2019 Building Energy Efficiency Standards.

⁶⁹ CEC, 2019 Building Energy Efficiency Standards, Fact Sheet.

⁷⁰ California Energy Commission, 2022 Building Energy Efficiency Standards.

⁷¹ See 14 Cal. Code Regs. §§ 15064.7 (generally giving discretion to lead agencies to develop and publish thresholds of significance for use in the determination of the significance of environmental effects), 15064.4 (giving discretion to lead agencies to determine the significance of impacts from GHGs).

Discretion is given to the lead agency whether to: (1) use a model or methodology to quantify GHG emissions resulting from a project, and which model or methodology to use; or (2) rely on a qualitative analysis or performance-based standards. Furthermore, three factors are identified that should be considered in the evaluation of the significance of GHG emissions:

1. The extent to which 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.⁷²

The administrative record for the Guidelines Amendments also clarifies “that the effects of greenhouse gas emissions are cumulative, and should be analyzed in the context of California Environmental Quality Act’s requirements for cumulative impact analysis.”⁷³

(3) Regional

(a) *South Coast Air Quality Management District CEQA Guidance*

The City of Los Angeles is located in the South Coast Air Basin (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 Gorgonio Pass area in Riverside County. The South Coast Air Quality Management District (SCAQMD) is responsible for air quality planning in the 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, enforcement of air quality regulations, and by supporting and implementing measures to reduce emissions from motor vehicles.

In 2008, SCAQMD released draft guidance regarding interim CEQA GHG significance thresholds.⁷⁴ A GHG Significance Threshold Working Group was formed to further evaluate potential GHG significance thresholds.⁷⁵ The SCAQMD proposed the use of a

⁷² 14 Cal. Code Regs. § 15064.4(b).

⁷³ Letter from Cynthia Bryant, Director of the Governor’s Office of Planning and Research to Mike Chrisman, California Secretary for Natural Resources, dated April 13, 2009.

⁷⁴ SCAQMD, Board Meeting, December 5, 2008, Agenda No. 31, <http://www3.aqmd.gov/hb/2008/December/081231a.htm>, accessed September 1, 2021.

⁷⁵ SCAQMD, Greenhouse Gases CEQA Significance Thresholds, <http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/ghg-significance-thresholds>, accessed September 1, 2021.

percent emission reduction target to determine significance for commercial/residential projects that emit greater than 3,000 MTCO_{2e} per year. Under this proposal, commercial/residential projects that emit fewer than 3,000 MTCO_{2e} per year would be assumed to have a less than significant impact on climate change. On December 5, 2008, the SCAQMD Governing Board adopted the staff proposal for an interim GHG significance threshold of 10,000 MTCO_{2e} per year for stationary source/industrial projects where the SCAQMD is the lead agency. However, the SCAQMD has yet to adopt a GHG significance threshold for land use development projects (e.g., residential/commercial projects). The Working Group has been inactive since 2011, and SCAQMD has not formally adopted any GHG significance threshold for other jurisdictions.

(b) SCAG Regional Transportation Plan/Sustainable Communities Strategy

To implement SB 375 and reduce GHG emissions by correlating land use and transportation planning, SCAG adopted the 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy (2020–2045 RTP/SCS) in October 2020. The vision for the region incorporates a range of best practices for increasing transportation choices, reducing dependence on personal automobiles, further improving air quality, and encouraging growth in walkable, mixed-use communities with ready access to transit infrastructure and employment. More and varied housing types and employment opportunities would be located in and near job centers, transit stations and walkable neighborhoods where goods and services are easily accessible via shorter trips. To support shorter trips, people would have the choice of using neighborhood bike networks, car share or micro-mobility services like shared bicycles or scooters. For longer commutes, people would have expanded regional transit services and more employer incentives to carpool or vanpool. Other longer trips would be supported by on-demand services such as microtransit, carshare, and citywide partnerships with ride hailing services. For those that choose to drive, hotspots of congestion would be less difficult to navigate due to cordon pricing and using an electric vehicle will be easier thanks to an expanded regional charging network.

The 2020–2045 RTP/SCS states that the SCAG region was home to about 18.8 million people in 2016 and currently includes approximately 6.0 million homes and 8.4 million jobs.⁷⁶ By 2045, the integrated growth forecast projects that these figures will increase by 3.7 million people, with nearly 1.6 million more homes and 1.6 million more jobs. Transit Priority Areas⁷⁷ (TPAs) will account for less than one percent of regional total land but are projected to accommodate 30 percent of future household growth between 2016 and 2045. The 2020–2045 RTP/SCS overall land use pattern reinforces the trend of focusing new housing and employment in the region’s TPAs. TPAs are a cornerstone of

⁷⁶ SCAG’s 2020–2045 RTP/SCS population growth forecast methodology includes data for years 2010, 2010, 2016, and 2045.

⁷⁷ Defined by the 2020–2045 RTP/SCS as generally walkable transit villages or corridors that are within 0.5 mile of a major transit stop (rail or bus rapid transit station) with 15-minute or less service frequency during peak commute hours

land use planning best practice in the SCAG region because they concentrate roadway repair investments, leverage transit and active transportation investments, reduce regional life cycle infrastructure costs, improve accessibility, create local jobs, and have the potential to improve public health and housing affordability.

The 2020–2045 RTP/SCS is expected to reduce per capita transportation emissions by 19 percent by 2035, which is consistent with SB 375 compliance with respect to meeting the State’s GHG emission reduction goals.⁷⁸ Due to fuel economy and efficiency improvements, GHG emission rates of model year 2017 vehicles have decreased by 15 to 20 percent when compared to model year 2008 and earlier vehicles. However, for purposes of SB 375 emissions reduction targets, the fuel economy improvements have been largely excluded from the reduction calculation. The SB 375 target focuses on the amount of vehicle travel per capita. As discussed above, OPR recommended that achieving 15 percent lower per capita (residential) or per employee (office) VMT than existing development is both generally achievable and is supported by evidence that connects this level of reduction to the State’s emissions goals (i.e., SB 375 goal). The reductions generated by fuel economy improvements are already included as part of the State’s GHG emissions reduction program and are not double counted in the SB 375 target calculation.

(4) Local

(a) *Green New Deal*

The City of Los Angeles addressed the issue of global climate change in *Green LA, An Action Plan to Lead the Nation in Fighting Global Warming* (“LA Green Plan/ClimateLA”) in 2007. This document outlines the goals and actions the City has established to reduce the generation and emission of GHGs from both public and private activities.

In April 2019, the *Green New Deal (Sustainable City Plan 2019)*, was released, consisting of a program of actions designed to create sustainability-based performance targets through 2050 designed to advance economic, environmental, and equity objectives.⁷⁹ The City’s Green New Deal is the first four-year update to the City’s first Sustainable City pLAN that was released in 2015.⁸⁰ It augments, expands, and elaborates on the City’s vision for a sustainable future and tackles the climate emergency with accelerated targets and new aggressive goals.

While not a plan adopted solely to reduce GHG emissions, within the City’s Green New Deal, “Climate Mitigation,” or reduction of GHG is one of eight explicit benefits

⁷⁸ SCAG, Final 2020–2045 RTP/SCS, Chapter 0: Making Connections, May 7, 2020, page 5.

⁷⁹ City of Los Angeles, Green New Deal, 2019.

⁸⁰ City of Los Angeles, Sustainable City pLAN, April 2015.

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 mBTU/sq.ft 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.
- 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°F by 2025; and 3°F by 2035.
- Ensure the proportion of Angelenos living within 1/2 mile of a park or open space is at least 65 percent by 2025; 75 percent by 2035; and 100 percent by 2050.

(b) City of Los Angeles Green Building Code

On December 11, 2019, the Los Angeles City Council approved Ordinance No. 186,488, 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 to incorporate various provisions of the 2019 CALGreen Code. Projects filed on or after January 1, 2020, must comply with the provisions of the Los Angeles Green Building Code. Specific mandatory requirements and elective measures are provided for three categories: (1) low-rise residential buildings; (2) nonresidential and high-rise residential buildings; and (3) additions and alterations to nonresidential and high-rise

residential buildings. Article 9, Division 5 includes mandatory measures for newly constructed nonresidential and high-rise residential buildings.

(c) *City of Los Angeles All-Electric Building Ordinance*

Chapter IX of the LAMC also requires that all new buildings be all-electric buildings, with some exceptions. Equipment typically powered by natural gas such as space heating, water heating, cooking appliances and clothes drying would need to be powered by electricity for new construction. Exceptions are made for commercial restaurants, laboratories, and research and development uses. The LAMC is consistent with 2022 Title 24 goals of encouraging all-electric development which requires new residential uses to be electric-ready (wiring installed for all-electric appliances). Buildings in Los Angeles account for 43 percent of greenhouse gas emissions—more than any other sector in the City. These LAMC requirements ensure that new buildings being constructed are built to leverage the increasingly clean electric grid, which is anticipated to be carbon-free by 2035, rather than relying on fossil fuels.

(d) *City of Los Angeles Solid Waste Programs and Ordinances*

The recycling of solid waste materials also contributes to reduced energy consumption. Specifically, when products are manufactured using recycled materials, the amount of energy that would have otherwise been consumed to extract and process virgin source materials is reduced as well as disposal energy averted. In 1989, California enacted AB 939, the California Integrated Waste Management Act, which establishes a hierarchy for waste management practices such as source reduction, recycling, and environmentally safe land disposal.

The City has developed and is in the process of implementing the Solid Waste Integrated Resources Plan, also referred to as the Zero Waste Plan, whose goal is to lead the City towards being a “zero waste” city by 2030. These waste reduction plans, policies, and regulations, along with Mayoral and City Council directives, have increased the level of waste diversion for the City to 76 percent as of 2013.⁸¹ The RENEW LA Plan, aims to achieve a zero waste goal through reducing, reusing, recycling, or converting the resources not going to disposal and achieving a diversion rate of 90 percent or more by 2025.⁸² The City has also approved the Waste Hauler Permit Program (Ordinance No. 181,519, LAMC Chapter VI, Article 6, Section 66.32-66.32.5), which requires private waste haulers to obtain AB 939 Compliance Permits to transport construction and demolition waste to City-certified construction and demolition waste processors. The City’s Exclusive Franchise System Ordinance (Ordinance No. 182,986), among other requirements, sets a maximum annual disposal level and diversion requirements for franchised waste haulers to promote waste

⁸¹ City of Los Angeles, Department of Public Works, LA Sanitation, Recycling. https://www.lacitysan.org/san/faces/home/portal/s-lsh-wwd/s-lsh-wwd-s/s-lsh-wwd-s-r?_adf.ctrl-state=kq9mn3h5a_188, accessed September 1, 2021.

⁸² City of Los Angeles, RENEW LA, Five-Year Milestone Report, 2011.

diversion from landfills and support the City's zero waste goals. These programs reduce the number of trips to haul solid waste and therefore reduce the amount of petroleum-based fuels and energy used to process solid waste.

(e) *City of Los Angeles General Plan*

The City does not have a General Plan Element specific to climate change and GHG emissions, but several goals, objectives, or policies in the Air Quality Element, and Housing Element, and Mobility Plan 2035 encourage the reduction of emissions. The following five goals from the City's General Plan Air Quality Element would also lead to GHG emission reductions:⁸³

- Less reliance on single-occupancy vehicles with fewer commute and non-work trips;
- Efficient management of transportation facilities and system infrastructure using cost-effective system management and innovative demand-management techniques;
- Minimal impacts of existing land use patterns and future land use development on air quality by addressing the relationship between land use, transportation, and air quality;
- Energy efficiency through land use and transportation planning, the use of renewable resources and less-polluting fuels, and the implement of conservation measures, including passive measures, such as site orientation and tree planting; and
- Citizen awareness of the linkages between personal behavior and air pollution and participation in efforts to reduce air pollution.

(f) *Housing Element (Housing Needs Assessment)*

The Housing Element of the General Plan is prepared pursuant to state law and provides planning guidance in meeting housing needs identified in the SCAG Regional Housing Needs Assessment (RHNA). The Housing Element identifies the City's housing conditions and needs, establishes the goals, objectives, and policies that are the foundation of the City's housing and growth strategy, and provides the array of programs the City intends to implement to create and preserve sustainable, mixed-income neighborhoods across the City.

The Housing Needs Assessment chapter of the Housing Element discusses the City's population and housing stock to identify housing needs for a variety of household types across the City. The current RHNA goal for affordable housing within the City is approximately forty percent of new construction. However, the City's projections show affordable housing comprising twenty percent of new construction, which falls short of the forty percent RHNA goal. In order to address this shortfall in affordable housing, the Housing Element provides measures to streamline and incentivize development of affordable housing. Such measures include revising density bonuses for affordable

⁸³ City of Los Angeles, Air Quality Element, June 1991, pages IV-1 to IV-4.

housing; identifying locations which are ideal for funding programs to meet low-income housing goals; and rezoning areas to encourage low-income housing. With implementation of such measures to increase affordable housing, the Housing Element predicts a significant increase in housing production at all income ranges compared to previous cycles.

The Housing Element also promotes sustainability and resilience, and environmental justice through housing, as well as the need to reduce displacement. It encourages the utilization of alternatives to current parking standards that lower the cost of housing, support GHG and VMT goals and recognize the emergence of shared and alternative mobility. The Element also identifies housing strategies for energy conservation, water conservation, alternative energy sources and sustainable development which support conservation and reduces demand.

(g) Mobility Plan 2035

In August 2015, the City Council adopted Mobility Plan 2035 (Mobility Plan), which serves as the City's General Plan circulation element. The City Council has adopted several amendments to the Mobility Plan since its initial adoption, including the most recent amendment on September 7, 2016.⁸⁴ The Mobility Plan incorporates "complete streets" principles and lays the policy foundation for how the City's residents interact with their streets. While the Mobility Plan 2035 mainly relates to transportation, certain components would serve to reduce VMT and mobile source GHG emissions. One component of the Mobility Plan is a GHG emission tracking program to establish compliance with SB 375, AB 32 and the region's Sustainable Community Strategy.

(h) Traffic Study Policies and Procedures

The City of Los Angeles Department of Transportation (LADOT) has developed the City Transportation Assessment Guidelines (TAG) (July 2019, updated July 2020) 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 TAG establishes 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.

⁸⁴ Los Angeles Department of City Planning, Mobility Plan 2035: An Element of the General Plan, approved by City Planning Commission on June 23, 2016, and adopted by City Council on September 7, 2016.

d) Existing Conditions

(1) Existing Statewide Greenhouse Gas Emissions

CARB compiles GHG inventories for the State of California. The most updated inventory reports the State's GHG emissions inventory from calendar year 2020. Based on the 2020 GHG inventory data (i.e., the latest year for which data are available from CARB), California emitted 369.2 MMTCO_{2e} including emissions resulting from imported electrical power.⁸⁵ Between April 2010 and July 2020, the population of California grew by an annualized rate of 0.64 percent to a total of 39.78 million.⁸⁶ In addition, the carbon intensity of California's economy (the amount of carbon pollution per million dollars of gross domestic product (GDP)) is declining. The California economy, measured as gross state product, grew from \$773 billion in 1990 to \$3.4 trillion in 2021 representing an increase of over three times the 1990 gross state product.⁸⁷ California's economy, as with most of the country, experienced a decline in gross state product in 2020 (\$3.0 trillion) due to the COVID-19 pandemic. Despite the population and economic growth experienced in 2021, California's net GHG emissions were reduced to below 1990 levels in 2020.⁸⁸ According to CARB, as of 2016, statewide GHG emissions dropped below the 2020 GHG Limit (431 MMTCO_{2e}) and have remained below the limit since that time, due in part to the state's GHG reduction programs (such as the RPS, LFCS, vehicle efficiency standards, and declining caps under the Cap and Trade Program). **Table IV.E-6, *State of California Greenhouse Gas Emissions***, identifies and quantifies Statewide anthropogenic GHG emissions and sinks (e.g., carbon sequestration due to forest growth) in 1990 and 2020 (i.e., the most recent year in which data are available from CARB). As shown in Table IV.E-6, the transportation sector is the largest contributor to statewide GHG emissions at approximately 37 percent in 2020.

⁸⁵ CARB, California Greenhouse Gas Emissions for 2000–2020 – by Category as Defined in the 2008 Scoping Plan, October 26, 2022. https://ww2.arb.ca.gov/sites/default/files/classic/cc/inventory/ghg_inventory_scopingplan_sum_2000-20.pdf. Accessed October 2022.

⁸⁶ California Department of Finance, "E-6. Population estimates and components of change by county 2010–2020," 2020, December. <http://www.dof.ca.gov/Forecasting/Demographics/Estimates/E-6/>. Accessed October 2022.

⁸⁷ California Department of Finance, Gross State Product, 2021, <https://dof.ca.gov/Forecasting/Economics/economic-indicators/gross-state-product/>. Accessed December 2022. Amounts are based on current dollars as of May 2022.

⁸⁸ California Department of Finance, Gross State Product, 2021, <https://dof.ca.gov/Forecasting/Economics/economic-indicators/gross-state-product/>. Accessed January 2023. Amounts are based on current dollars as of May 2022.

**TABLE IV.E-6
STATE OF CALIFORNIA GREENHOUSE GAS EMISSIONS**

Category	Total 1990 Emissions using IPCC SAR (MMTCO_{2e})	Percent of Total 1990 Emissions	Total 2020 Emissions using IPCC AR4 (MMTCO_{2e})	Percent of Total 2020 Emissions
Transportation	150.7	35%	135.8	36.8%
Electric Power	110.6	26%	59.5	16.1%
Commercial	14.4	3%	11.6	3.6%
Residential	29.7	7%	25.3	6.8%
Industrial	103.0	24%	73.3	19.9%
Recycling and Waste ^a	–	–	8.9	2.4%
High-GWP/Non-Specified ^b	1.3	<1%	21.3	5.8%
Agriculture/Forestry	23.6	6%	31.6	8.6%
Forestry Sinks ^c	-6.7		--	--
Net Total (IPCC AR4) ^d	431	100%	369.2	100%

^a Included in other categories for the 1990 emissions inventory.

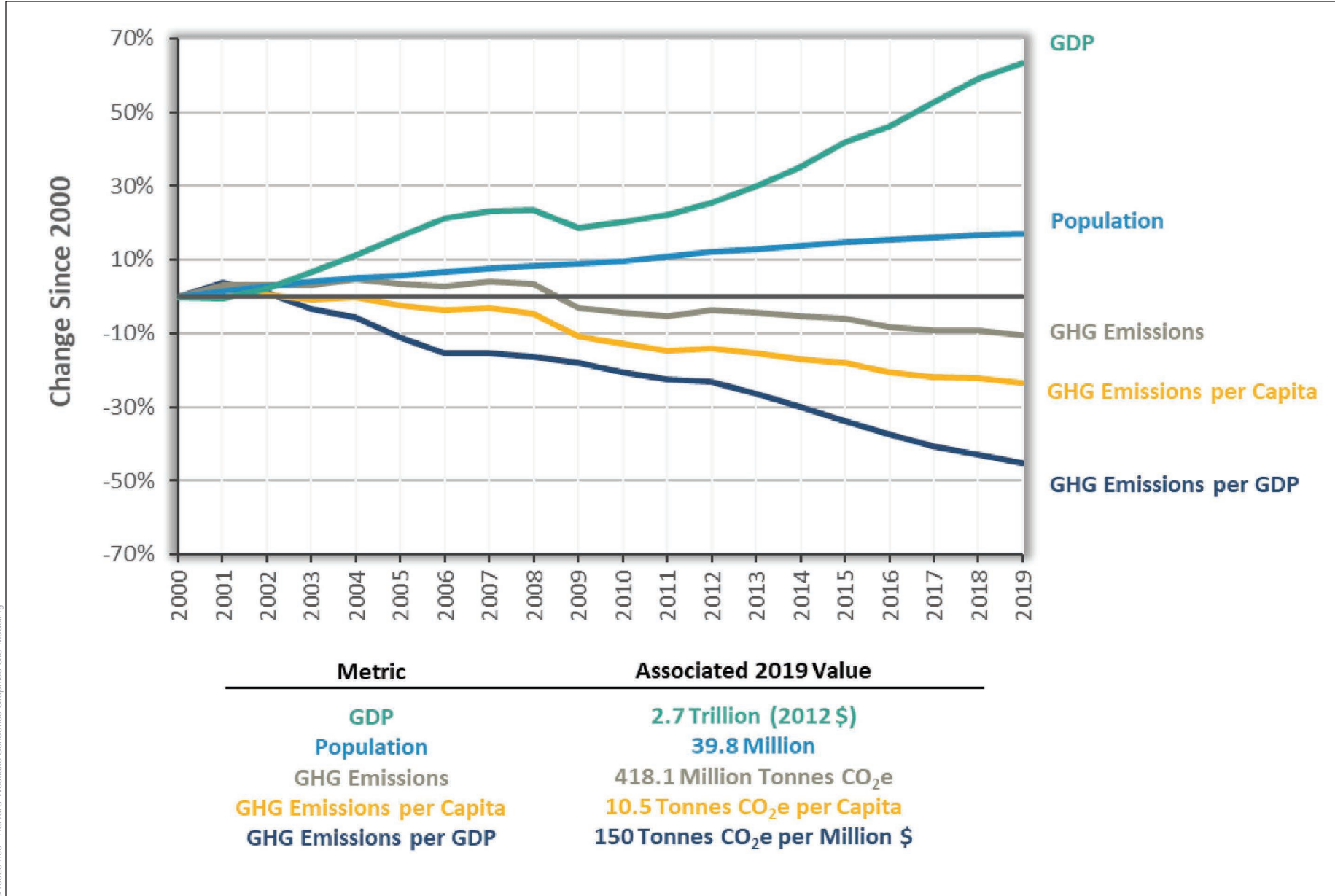
^b High-GWP gases are not specifically called out in the 1990 emissions inventory.

^c Revised methodology under development (not reported for 2019).

^d CARB revised the State's 1990 level GHG emissions using GWPs from the IPCC AR4.

SOURCES: California Air Resources Board, California Greenhouse Gas Emissions for 2000 to 2020. Trends of Emissions and Other Indicators. October 26, 2022.
https://ww2.arb.ca.gov/sites/default/files/classic/cc/inventory/2000-2020_ghg_inventory_trends.pdf.
 Accessed January 2023.

California's decreasing GHG emissions trend (total and per capita) and increasing population and gross State product trends are shown graphically in **Figure IV.E-1, Change in California GDP, Population, and GHG Emissions Since 2000.**



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

Fourth & Central Project

Figure IV.E-1
Change in California GDP, Population, and GHG Emissions Since 2000

(2) Existing Project Site Greenhouse Gas Emissions

The Project Site is currently occupied by cold storage facilities that include warehouse and industrial buildings and associated office space, truck loading docks, and surface parking. The existing buildings on the Project Site total approximately 360,734 sf of floor area. For purposes of this analysis, although the Project intends to retain and reuse one of the on-site structures (if feasible), all existing structures and facilities on the Project Site are conservatively assumed to be demolished and removed to allow for development of the Project. GHG emissions are currently associated with vehicle trips to and from the existing Project Site, on-site combustion of fossil fuels for an existing emergency generator, on-site combustion of natural gas for heating, off-site combustion of fossil fuels for electricity, and off-site emissions from solid waste decomposition, water conveyance, and wastewater treatment.

Existing operational emissions for the Project Site are presented in **Table IV.E-7, *Estimated Existing Project Site GHG Emissions***. Details regarding the calculation of the existing Project Site emissions are provided in Appendix B of this Draft EIR.

**TABLE IV.E-7
ESTIMATED EXISTING PROJECT SITE GREENHOUSE GAS EMISSIONS**

Emissions Sources	Project CO _{2e} (Metric Tons per Year) ^{a,b,c}
Existing Operational	
On Road Mobile Sources	16,481
Area (landscaping, refrigerants)	1,592
Emergency Generators	24
Energy (Electricity and Natural Gas)	2,204
Water Conveyance and Wastewater Treatment	15
Solid Waste	70
Existing Total Emissions	20,386

^a Totals may not add up exactly due to rounding in the modeling calculations

^b CO_{2e} emissions are calculated using the global warming potential values from the IPCC AR4. Although the IPCC has released AR5 with updated GWPs, CARB reports the Statewide GHG inventory using the AR4 GWPs, which is consistent with international reporting standards.

SOURCE: ESA, 2022.

3. Project Impacts

a) Thresholds of Significance

(1) CEQA Guidelines Appendix G

In accordance with Appendix G of the CEQA Guidelines, a project would have a significant impact related to GHGs if it would:

Threshold (a): Generate GHG 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 GHGs.

CEQA Guidelines Section 15064.4 provides that a lead agency shall make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate, or estimate the amount of GHG emissions resulting from a project. It also gives lead agencies the discretion to determine whether to assess those emissions quantitatively or qualitatively. If a qualitative analysis is used, in addition to quantification, this section recommends certain qualitative factors 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 reduction or mitigation of GHGs). CEQA Guidelines Section 15064.4 does not establish a threshold of significance; rather, lead agencies are granted discretion to establish significance thresholds for their respective jurisdictions, including looking to thresholds developed by other public agencies, or suggested by other experts, such as the California Air Pollution Control Officers Association (CAPCOA), so long as any threshold chosen is supported by substantial evidence (see CEQA Guidelines Section 15064.7(c)). Although GHG emissions can be quantified as discussed below under Subsection IV.E.3.(b), *Methodology*, CARB, SCAQMD, and the City have not adopted quantitative project-level significance thresholds for GHG emissions that would be applicable to the Project.

The California Natural Resources Agency (CNRA) has also clarified that the Guidelines focus on the effects of GHG emissions as cumulative impacts, and that they should be analyzed in the context of CEQA's requirements for cumulative impact analysis (see CEQA Guidelines Section 15064(h)).⁸⁹

OPR released a technical advisory on CEQA and climate change that provided some guidance on assessing the significance of GHG emissions, and states that "lead agencies may undertake a project-by-project analysis, consistent with available guidance and current CEQA practice," and that while "climate change is ultimately a cumulative impact, not every

⁸⁹ See generally California Natural Resources Agency, Final Statement of Reasons for Regulatory Action, December 2009, pages 11–13, 14, and 16; see also Letter from Cynthia Bryant, Director of the Office of Planning and Research to Mike Chrisman, Secretary for Natural Resources, April 13, 2009.

individual project that emits GHGs must necessarily be found to contribute to a significant cumulative impact on the environment.”⁹⁰ Furthermore, the technical advisory states that “CEQA authorizes reliance on previously approved plans and mitigation programs that have adequately analyzed and mitigated GHG emissions to a less than significant level as a means to avoid or substantially reduce the cumulative impact of a project.”⁹¹

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 would 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.⁹² 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.⁹³ 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.”⁹⁴ Thus, 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 a program and/or other regulatory schemes to reduce GHG emissions.

The City has not adopted a numeric threshold for the analysis of GHG impacts. As noted above, CEQA Guidelines Section 15064.4(b)(2) allows the City to determine a threshold of significance that applies to the Project, and, accordingly, the threshold of significance applied in the analysis below is 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. The 2022 Climate Change Scoping Plan, the 2020–2045 RTP/SCS, the City of Los Angeles Green New Deal, and the Los Angeles Green Building Code all apply to the Project and are all intended to reduce GHG emissions to meet the Statewide targets set forth in AB 32 and amended by SB 32. If the Project is not in conflict with the applicable regulatory plans and policies to reduce GHG emissions, then the Project would result in a less than significant impact with respect to GHG emissions.

(2) SCAQMD Thresholds

As discussed above, SCAQMD has an interim GHG significance threshold of 10,000 MTCO_{2e} per year for stationary source/industrial projects where SCAQMD is the lead agency. This SCAQMD interim GHG significance threshold is not applicable to the

⁹⁰ See generally California Natural Resources Agency, Final Statement of Reasons for Regulatory Action, December 2009, pages 11–13, 14, and 16; see also Letter from Cynthia Bryant, Director of the Office of Planning and Research to Mike Chrisman, Secretary for Natural Resources, April 13, 2009.

⁹¹ Governor’s Office of Planning and Research, Technical Advisory – CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act (CEQA) Review.

⁹² CCR, Title 14, Section 15064(h)(3).

⁹³ CCR, Title 14, Section 15064(h)(3).

⁹⁴ CCR, Title 14, Section 15064(h)(3).

Project because it is a mixed-use residential and commercial project, and the City is the Lead Agency.

(3) City Thresholds

The L.A. CEQA Thresholds Guide does not identify criteria to evaluate GHG emissions impacts. Thus, the potential for the Project to result in impacts from GHG emissions is based on the CEQA Guidelines Appendix G thresholds above. To answer both of those threshold questions, the City considers whether the Project is consistent with the following plans:

- 2022 Scoping Plan
- SCAG’s 2020–2045 RTP/SCS consistent with SB 375
- L.A.’s Green New Deal

As discussed above, OPR has noted that lead agencies “should make a good-faith effort to calculate or estimate GHG emissions” from a project.⁹⁵ GHG emissions are quantified below, consistent with OPR guidelines.

b) Methodology

(1) Project Consistency with Applicable Plans and Policies

The Project’s GHG emission impacts are evaluated by assessing whether the Project conflicts with applicable GHG reduction strategies and local actions approved or adopted by CARB, SCAG, and the City. As 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 whether the Project is not in conflict with, and therefore is consistent 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 sole basis for determining the significance of the Project’s GHG-related impacts on the environment consistent with CEQA Guidelines Section 15064.4 and CEQA Guidelines Appendix G. Based on CEQA case law, when no guidance exists, the lead agency may look to and assess general compliance with comparable regulatory schemes.⁹⁶

A consistency analysis is provided and describes the Project’s compliance with performance-based standards included in the regulations outlined in the applicable

⁹⁵ OPR Technical Advisory, p. 5.

⁹⁶ See *Protect Historic Amador Waterways v. Amador Water Agency* (2004) 116 Cal. App. 4th 1099, 1107 [“[A] lead agency’s use of existing environmental standards in determining the significance of a project’s environmental impacts is an effective means of promoting consistency in significance determinations and integrating CEQA environmental review activities with other environmental program planning and resolution.”]. Lead agencies can, and often do, use regulatory agencies’ performance standards. A project’s compliance with these standards usually is presumed to provide an adequate level of protection for environmental resources. See, e.g., *Cadiz Land Co. v. Rail Cycle* (2000) 83 Cal.App.4th 74, 99 (upholding use of regulatory agency performance standard).

portions of CARB’s 2022 Climate Change Scoping Plan, the 2020–2045 RTP/SCS, City’s Green New Deal, and the Los Angeles Green Building Code.

Appendix D, Local Actions, of the 2022 Scoping Plan Update includes “recommendations intended to build momentum for local government actions that align with the State’s climate goals, with a focus on local GHG reduction strategies (commonly referred to as climate action planning) and approval of new land use development projects, including through environmental review under the California Environmental Quality Act (CEQA).”⁹⁷

The State encourages local governments to adopt a CEQA-qualified CAP addressing the three priority areas (transportation electrification, VMT reduction, and building decarbonization). However, the State recognizes that almost 50% of jurisdictions do not have an adopted CAP, among other reasons because they are costly, requiring technical expertise, staffing, funding. Additionally, CAPs need to be monitored and updated as State targets change and new data is available. Jurisdictions that wish to take meaningful climate action (such as preparing a non-CEQA-qualified CAP or as individual measures) aligned with the State’s climate goals in the absence of a CEQA-qualified CAP should also look to the three priority areas when developing local climate plans, measures, policies, and actions. “By prioritizing climate action in these three priority areas, local governments can address the largest sources of GHGs within their jurisdiction.”⁹⁸

The State also recognizes in Appendix D, Local Actions, of the Scoping Plan that each community or local area has distinctive situations and local jurisdictions must balance the need for housing while demonstrating that a Project is in alignment with the State’s Climate Goals.⁹⁹ The State calls for the climate crisis and the housing crisis to be confronted simultaneously. Jurisdictions should avoid creating targets that are impossible to meet as a basis to determine significance. Ultimately, targets that make it more difficult to achieve statewide goals by prohibiting or complicating projects that are needed to support the State’s climate goals, like infill development, low-income housing or solar arrays, is not consistent with the State’s goals. The State also recognizes the lead agencies’ discretion to develop evidence-based approaches for determining whether a project would have a potentially significant impact on GHG emissions.

(2) Quantification of Greenhouse Gas Emissions

In addition to the evaluation of the Project’s consistency with plans adopted for the purpose of reducing and/or mitigating GHG emissions, for informational purposes, 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 primary purpose of quantifying the Project’s GHG emissions is to satisfy CEQA Guidelines Section 15064.4(a), which requires a good-faith effort by the lead agency to describe and calculate emissions. The

⁹⁷ CARB, Final 2022 Climate Change Scoping Plan – Appendix D: Local Actions, November 2022.

⁹⁸ CARB, Final 2022 Climate Change Scoping Plan – Appendix D: Local Actions, November 2022.

⁹⁹ The State recognizes the need for 2.5 million housing units over the next eight years, with one million being affordable units. See page 20, Appendix D, 2022 Scoping Plan Update, November 2022.

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. The significance of the Project's GHG emissions impacts is not based on the amount of GHG emissions resulting from the Project, and is evaluated solely on the basis of consistency with GHG reduction plans, policies, and regulations.

The California Climate Action Registry (Climate Registry) has prepared the General Reporting Protocol for calculating and reporting GHG emissions from a number of general and industry-specific activities.¹⁰⁰ The GHG emissions provided in this report are consistent with the General Reporting Protocol framework. The General Reporting Protocol recommends separating 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.¹⁰¹

CARB recommends consideration of indirect emissions to provide a more complete picture of the GHG footprint of a facility: "As facilities consider changes that would affect their emissions – addition of a cogeneration unit to boost overall efficiency even as it increases direct emissions, for example – the relative impact on total (direct plus indirect) emissions by the facility should be monitored. Annually reported indirect energy usage also aids the conservation awareness of the facility and provides information" to CARB to be considered for future strategies by the industrial sector.¹⁰² For these reasons, CARB has proposed requiring the calculation of direct and indirect GHG emissions as part of the AB 32 reporting requirements. Additionally, OPR directs lead agencies to "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."¹⁰³ Therefore, direct and indirect emissions have been calculated for the Project.

¹⁰⁰ The Climate Registry, General Reporting Protocol Version 2.1, 2016.

¹⁰¹ Embodied energy includes energy required for water pumping and treatment for end-uses. Third-party vehicles include vehicles used by residents, visitors, and employees traveling to and from the Project Site.

¹⁰² California Air Resources Board, Staff Report: Initial Statement of Reasons for Rulemaking, Revisions to the Regulation for Mandatory Reporting of Greenhouse Gas Emissions Pursuant to the California Global Warming Solutions Act of 2006 (AB 32), 2010, page 27.

¹⁰³ Governor's Office of Planning and Research, Technical Advisory – CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act (CEQA) Review, 2008, page 5.

A fundamental challenge 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 project because the project may cause a shift in the locale for some type of GHG emissions, rather than simply 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 in GHGs that would exist if the project were not implemented. Therefore, the analysis of the Project’s GHG emissions is conservative in that it assumes all of the GHG emissions are new additions to the atmosphere.

It is considered reasonable and consistent with criteria pollutant calculations to consider those GHG emissions resulting from Project-related incremental (net) increases from emissions sources mentioned in the scope categories above, such as emissions from the use of on-road mobile vehicles, electricity, and natural gas, compared to existing conditions. This includes Project construction activities such as demolition, hauling, and construction worker trips. This analysis also considers indirect GHG emissions from water conveyance, wastewater generation, and solid waste handling. Since potential impacts resulting from GHG emissions are long-term rather than acute, GHG emissions are calculated on an annual basis.

GHG emissions are estimated using CalEEMod (version 2022.1.1), 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 from a variety of land use projects. CalEEMod was developed in collaboration with the air districts of California. Regional data (e.g., emission factors, trip lengths, meteorology, source inventory, etc.) 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.¹⁰⁴

(i) Existing Emissions

Existing 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 from a variety of land use projects.

CalEEMod was developed in collaboration with the air districts of California. Regional data (e.g., emission factors, trip lengths, meteorology, source inventory, etc.) 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.¹⁰⁵ CalEEMod was used to estimate existing site GHG emissions from natural gas, solid waste, and water and wastewater. GHG emissions from electricity, water and wastewater

¹⁰⁴ See: <http://www.caleemod.com>.

¹⁰⁵ See: <http://www.caleemod.com>.

were estimated based on utility usage information provided by the facility, as provided in Appendix B of this Draft EIR. Mobile source emissions were estimated based on CARB's on-road vehicle emissions factor (EMFAC) model. Mobile source emissions were based on facility provided information on truck and vehicle trips, truck types, and routes taken to by the delivery trucks that included routes that included vehicle miles traveled within and outside California (for additional information on facility provided existing truck route assumptions refer to Appendix B of this Draft EIR), and emission factors from the CARB on-road vehicle emissions factor (EMFAC2021) model. The existing facility provided data on the proportion and types of delivery trucks (medium-duty and heavy-duty) that travel within the Southern California region, outside the Southern California region towards northern California, and outside of California. In addition, emissions from transportation refrigeration units (TRUs) used to provide refrigeration for cargo transported by trucks were based on ten hours of TRU operation per truck per day and emission factors from the CARB OFFROAD model, as provided in Appendix B of this Draft EIR.

(ii) *Project Construction Emissions*

The emissions of GHGs associated with construction of the Project were calculated for each year of construction activity using CalEEMod and EMFAC2021. Construction emissions are forecasted by assuming a conservative estimate of construction activities (i.e., assuming all construction occurs at the earliest feasible date). Project construction is estimated to start in 2025, but may commence at a later date. If the onset of construction is delayed to a later date than assumed in the modeling analysis, construction impacts would be similar to or less than those analyzed, because a more energy-efficient and cleaner burning construction equipment and vehicle fleet mix would be expected in the future. This is because State regulations require construction equipment fleet operators to phase-in less polluting heavy-duty equipment and trucks over time. As a result, should the Project commence construction on a later date than modeled in this GHG impact analysis, GHG impacts would be less than the impacts disclosed herein.

The output values used in this analysis were adjusted to be Project-specific based on equipment types and the construction schedule. These values were then applied to the same construction phasing assumptions used in the criteria pollutant analysis (see Section IV.A, *Air Quality*, of this Draft EIR) to generate GHG emissions values for each construction year. The emissions have been estimated using the CalEEMod software, an emissions inventory software program recommended by SCAQMD, and the CARB EMFAC2021 model. The SCAQMD guidance, Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold, recognizes that construction-related GHG emissions from projects “occur over a relatively short-term period of time” and that “they contribute a relatively small portion of the overall lifetime project GHG emissions.”¹⁰⁶

¹⁰⁶ South Coast Air Quality Management District, Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold, October 2008.

In accordance with SCAQMD guidance, GHG emissions from construction have been amortized (i.e., averaged annually) over the lifetime of the Project. The SCAQMD defines the lifetime of a project as 30 years.¹⁰⁷ Therefore, the Project's total construction GHG emissions were divided by 30 to determine an annual construction emissions estimate comparable to operational emissions. A more detailed discussion of the methodology for projecting the Project's construction emissions and descriptions of the Project's construction subphasing and equipment list are available in the *Air Quality and Greenhouse Gas Technical Documentation* appendix for the Project, which is provided in Appendix B of this Draft EIR.

(iii) *Project Operational Emissions*

Similar to construction, operational GHG emissions are also estimated using CalEEMod, along with CARB's EMFAC2021 model. CalEEMod was used to estimate GHG emissions from electricity, solid waste, water and wastewater, and landscaping equipment. The Project buildings would utilize electricity instead of natural gas. Accordingly, natural gas would not be supplied to support Project operational activities related to building energy. While building electrification would result in higher electricity usage, it would eliminate the use of a fossil fuel and the associated GHG emissions (i.e., natural gas combustion) from building energy demand. The Project would not result in installation of any new natural gas infrastructure.

The GHG emissions calculations for the Project include credits or reductions for implementation of relevant project design features set forth in this Draft EIR (see subsection IV.E.3.c), *Project Design Features*, for additional details). The analysis of Project GHG emissions at buildout also takes into account actions and mandates already approved and expected to be in force by Project buildout (e.g., Pavley I and II Standards and implementation of California's Statewide RPS beyond current levels of renewable energy). Emissions reductions regarding Cap-and-Trade were not included in this analysis. Operational GHG emissions are assessed based on the Project-related incremental increase in GHG emissions compared to baseline conditions. Under CEQA, the baseline environmental setting is established as the time the Notice of Preparation for this EIR circulated on March 10, 2022.

Operational GHG emissions were calculated for the GHG conditions where the Project with implementation of GHG reduction characteristics, features, and measures represents emission factors for the full Project buildout year of 2030 consistent with SB 100. As described above, SB 100 represents the State's most current Renewable Portfolio Standard (RPS) law and growth in electricity demand with an CO₂ intensity factor of 375.93 lbs CO₂/MWh for year 2030 scaled proportionately based on the future year renewable energy targets of at least 60 percent by 2030.

¹⁰⁷ South Coast Air Quality Management District, Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans, December 5, 2008, page 5.

Mobile emissions were estimated based on emission factors from EMFAC2021 along with VMT values taken from the Transportation Assessment (TA), and used to estimate on-road mobile source GHG emissions.¹⁰⁸ The Project design includes characteristics that would reduce vehicle trips and VMT when compared to a standard project within the Air Basin as measured by CalEEMod. These relative reductions in vehicle trips and VMT from a standard project within the Air Basin help quantify the criteria air pollutant emissions reductions achieved by locating the Project in an infill, HQT and TPA area that promotes alternative modes of transportation. Previously, trip generation for land uses was calculated based on survey data collected by the ITE. However, these ITE trip generation rates were based on data collected at suburban, single-use, free standing sites, which may not be representative of urban mixed-use environments. Beginning in 2019, the USEPA has sponsored a study to collect travel survey data from mixed-use developments in order provide a more representative trip generation rate for multi-use sites. Results of the USEPA survey indicate that trip generation and VMT are affected by factors such as resident and job density, availability of transit, and accessibility of biking and walking paths. Based on these factors, the USEPA has developed equations known as the EPA Mixed-Use Development (MXD) model to calculate trip reductions for multi-use developments. The LADOT VMT Calculator incorporates the USEPA MXD model and accounts for project features such as increased density and proximity to transit, which would reduce VMT and associated fuel usage in comparison to free-standing sites. As shown in Appendix B, *Air Quality and Greenhouse Gas Emissions Appendix*, and the Project's TA, included as Appendix J of this Draft EIR, incorporation of USEPA MXD VMT reduction features applicable to the Project results in a 34.0 percent reduction in overall VMT for the Project and resultant pollutant emissions. Refer to VMT data in Appendix B and Appendix J of this Draft EIR. The Project's emissions were calculated for Project buildout in 2030. In addition, the operational mobile source GHG emissions estimates are based on GHG emission factors for the mobile sources and the GWP values for the GHGs emitted. Emissions of GHGs from motor vehicles are dependent on specific vehicle types and models that would travel to and from the Project Site. The national policy for fuel efficiency and emissions standards for the United States auto industry requires that new passenger cars and light-duty trucks achieve an average fuel economy standard of 35.5 miles per gallon (mpg) and 250 grams of CO₂ per mile by model year 2016 (Phase I standards), based on USEPA calculation methods. In August 2012, more stringent phased-in standards were adopted for new model year 2017 through 2025 passenger cars and light-duty trucks. New model year 2020 vehicles are projected to achieve 41.7 mpg (if GHG reductions are achieved exclusively through fuel economy improvements) and 213 grams of CO₂ per mile (Phase II standards). By 2025, new vehicles are required to achieve 54.5 mpg (if GHG reductions are achieved exclusively through fuel economy improvements) and 163 grams of CO₂ per mile (Phase II standards).¹⁰⁹ However, as mentioned above in Subsection IV.E.2.b.(1), *Regulatory Framework – Federal*, in April

¹⁰⁸ Gibson Transportation Consulting, Inc., Transportation Assessment for the Fourth & Central Project, June 2022. Provided in Appendix J of this Draft EIR.

¹⁰⁹ U.S. Environmental Protection Agency, EPA and NHTSA Set Standards to Reduce Greenhouse Gases and Improve Fuel Economy for Model Years 2017–2025 Cars and Light Trucks, August 2012.

2020, the final USEPA and NHTSA SAFE Vehicles Rule was published in the Federal Register. However, as directed in President Biden’s executive order on Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis Executive Order, the USEPA and NHTSA are now evaluating whether and how to replace the SAFE Rule. Additionally, as mentioned above, in February 2022, the USEPA issued the Revised 2023 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions Standards.¹¹⁰ This final rule revises current GHG standards beginning for vehicles in model year 2023 and through model year 2026 and establish the most stringent GHG standards ever set for the light-duty vehicle sector that are expected to result in average fuel economy label values of 40 mpg, while the standards they replace (the SAFE rule standards) would achieve only 32 mpg in model year 2026 vehicles.¹¹¹

All vehicle types could visit the Project Site. Therefore, this assessment uses the Air Basin’s motor vehicle fleet mix and the fleet average calendar year emissions factors from EMFAC to estimate mobile source GHG emissions.

Project energy demand and the consumption of fossil fuels to generate electricity and to provide space heating and cooling and hot water generates GHG emissions. Emissions of GHGs associated with energy usage under the Project’s proposed land uses are calculated using the CalEEMod tool. Future fuel consumption rates are estimated based on specific square footage of the Project’s residential, hotel, office, retail and restaurant, and vehicular parking land uses, as well as predicted water supply needs of the Project. While the Project would be required to comply with the 2022 Title 24 Building Energy Efficiency Standards (which are effective for building permit applications that are applied for on or after January 1, 2023), CalEEMod includes building energy efficiency factors for the 2019 Title 24 Building Energy Efficiency Standards but does not include correction factors for the 2022 standards. Thus, the analysis of building energy-related GHG emissions does not reflect additional building energy reductions and associated GHG emissions reductions from 2022 Title 24 compliance.

Emission factors for GHGs due to electrical generation to serve the demands of the existing Project Site were obtained from the LADWP 2021 Power Content Label, which accounts for the generation mix using renewable and non-renewable sources.¹¹² Approximately 35.2 percent of LADWP’s 2021 electricity purchases were from renewable

¹¹⁰ U.S. Environmental Protection Agency, *Revised 2023 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions Standards*, <https://www.govinfo.gov/content/pkg/FR-2021-12-30/pdf/2021-27854.pdf>.

¹¹¹ U.S. Environmental Protection Agency, *Revised 2023 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions Standards: Regulatory Update*, <https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P1013NR8.pdf>.

¹¹² Los Angeles Department of Water and Power, 2021 Power Content Label, https://www.ladwp.com/ladwp/faces/ladwp/aboutus/a-power/a-p-powercontentlabel;jsessionid=XL84kDyS74VcfJ9q2vZfVJHGgcpHjIHGI1C4Qy8sW6QTxrCTc46n!-1508772228?_afLoop=234955472766070&_afWindowMode=0&_afWindowId=null#%40%3F_afWindowId%3Dnull%26_afLoop%3D234955472766070%26_afWindowMode%3D0%26_adf.ctrl-state%3Dkw55f6s9t_4.

sources, which is similar to the 33.1 percent Statewide percentage of electricity purchases from renewable sources.¹¹³ LADWP would provide an increasing electricity percentage from renewable sources in compliance with the RPS with 50 percent by 2025, 55 percent by 2030, and 65 percent by 2036. Based on LADWP's power content label, the CO₂ intensity factor for electricity sales as of year 2021 was 609 lbs CO₂/MWh.¹¹⁴ With the passage of SB 100, LADWP would be required to update plans to provide an increasing percentage of renewable electricity pursuant to the regulation (i.e., 60 percent by December 31, 2030 and 100 percent by December 31, 2045).

Based on LADWP future projections of energy supply resources for the Project opening year of 2030, an estimated CO₂ intensity factor of 375.93 lbs CO₂/MWh for electricity was calculated using LADWP projections from existing plans for compliance with the RPS (i.e., SB 100).^{115,116,117}

Emissions of GHGs associated with solid waste disposal under the Project's proposed land uses are calculated using the CalEEMod tool. The emissions are based on the size of the Project's residential, hotel, office, retail and restaurant uses, the waste disposal rate for the land uses was estimated based on the assumed average number of residents, visitors, and employees on the Project Site per day, and the GWP values for the GHGs emitted. Refer to Section IV.L.3, *Utilities and Service Systems – Solid Waste*, of this Draft EIR for estimated solid waste disposal and diversion rates from the Project. The City has developed and is in the process of implementing the Solid Waste Integrated Resources Plan, also referred to as the City's Zero Waste Plan, whose goal is to lead the City towards being a "zero waste" City by 2030. These waste reduction plans, policies, and regulations,

¹¹³ Los Angeles Department of Water and Power, 2021 Power Content Label, https://www.ladwp.com/ladwp/faces/ladwp/aboutus/a-power/a-p-powercontentlabel;jsessionid=XL84kDyS74VcfJ9q2vZfVJHGgcpHjIHGI1C4Qy8sW6QTxrCTc46n!-1508772228?_afLoop=234955472766070&_afWindowMode=0&_afWindowId=null#%40%3F_afWindowId%3Dnull%26_afLoop%3D234955472766070%26_afWindowMode%3D0%26_adf.ctrl-state%3Dkw55f6s9t_4.

¹¹⁴ Los Angeles Department of Water and Power, 2021 Power Content Label, https://www.ladwp.com/ladwp/faces/ladwp/aboutus/a-power/a-p-powercontentlabel;jsessionid=XL84kDyS74VcfJ9q2vZfVJHGgcpHjIHGI1C4Qy8sW6QTxrCTc46n!-1508772228?_afLoop=234955472766070&_afWindowMode=0&_afWindowId=null#%40%3F_afWindowId%3Dnull%26_afLoop%3D234955472766070%26_afWindowMode%3D0%26_adf.ctrl-state%3Dkw55f6s9t_4.

¹¹⁵ SB-100 California Renewables Portfolio Standard Program: Emissions of Greenhouse Gases, https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201720180

¹¹⁶ Los Angeles Department of Water and Power, 2017 Power Strategic Long-Term Resource Plan, December 2017.

¹¹⁷ California Energy Commission, Utility Energy Supply Plans from 2015, 2016, http://www.energy.ca.gov/almanac/electricity_data/s-2_supply_forms_2015/, accessed February 27, 2020.

along with Mayoral and City Council directives, have increased the level of waste diversion (e.g., recycling) for the City to 76 percent as of 2013.¹¹⁸

The emissions of GHGs associated with water demand and wastewater generation from the Project are calculated using CalEEMod. The emissions are based on the size of the Project land uses, the water demand factors, the electrical intensity factors for water supply, treatment, and distribution for wastewater treatment, the GHG emission factors for the electricity utility provider, and the GWP values for the GHGs emitted. Refer to Section IV.L.1, *Utilities and Service Systems – Water Supply*, and Section IV.L.2, *Utilities and Service Systems – Wastewater*, of this Draft EIR for the estimated water usage rate for the Project.

The emissions of GHGs associated with operational area sources under the Project are calculated using the CalEEMod tool. The emissions for landscaping equipment are based on the size of the open space based on the Project's residential, hotel, office, retail, and restaurant land uses, the GHG emission factors for fuel combustion, and the GWP values for the GHGs emitted. Refrigerant emissions are based on Project land use type since different types of refrigeration equipment are used by different types of land uses. CalEEMod quantifies refrigerant emissions from leaks during regular operation and routine servicing of the refrigeration equipment lifetime, and then derives average annual emissions from the lifetime estimate.

Stationary sources would also include emergency generators with one emergency generator in Building 2 on the North Site with an estimated capacity rated at approximately 2,500 kilowatts (3,353 horsepower), two emergency generators shared between Buildings 3, 4 and 5 on the South Site with an estimated capacity rated at approximately 1,500 kilowatts (2,012 horsepower) each, two emergency generators shared between Buildings 6, 7, 8 and 9 on the South Site with an estimated capacity rated at approximately 2,000 kilowatts (2,682 horsepower) each, one emergency generator in Building 10 on the West Site with an estimated capacity rated at approximately 1,500 kilowatts (2,012 horsepower), which would provide emergency power primarily for lighting and other emergency building systems. The emergency generators would result in emissions during maintenance and testing operations. Emergency generators are permitted by the SCAQMD and regulated under SCAQMD Rule 1470. Maintenance and testing would not occur daily, but rather periodically, up to 50 hours per year per Rule 1470. For the purpose of estimating maximum daily emissions, it is estimated that the emergency generators would operate for up to two hours a day for maintenance and testing purposes.

Stationary sources would also include on-site cooling towers to assist in dissipating heat from commercial processes, such as commercial heating, ventilation and air conditioning (HVAC) systems, of the project. The cooling towers would result in emissions due to the

¹¹⁸ City of Los Angeles, Bureau of Sanitation, Zero Waste Progress Report, 2013.

required energy to supply, distribute, and treat the water used and emissions were estimated based on the energy demand factors for water used in the CalEEMod software.

For informational purposes, in order to evaluate the efficacy of the GHG reduction characteristics, features, and measures that would be implemented as part of the Project, this analysis compares the Project's GHG emissions to the emissions that would be generated by the Project without implementation of GHG reduction characteristics, features, and measures. This approach mirrors the concepts used in CARB's 2017 Climate Change Scoping Plan, which demonstrates GHG reductions compared to a Project without implementation of GHG reduction characteristics, features, and measures where operational GHG emissions were calculated based on a scenario without Project Design Features and consistent with CARB's 2017 Climate Change Scoping Plan Statewide BAU forecast for the AB 32 target year of 2020 and continued reductions through SB 32 through 2030. Thus, the Project without implementation of GHG reduction characteristics, features, and measures would assume a CO₂ intensity factor of 554.49 lbs CO₂/MWh for year 2030, which represents the RPS law and growth in electricity demand, but does not include SB 100 that was signed into law after CARB's 2017 Climate Change Scoping Plan.¹¹⁹ In addition, the Project Without GHG Reduction Characteristics, Features, and Measures scenario does not account for land use characteristics of the Project that reduce VMT given its mix of complementary residential, hotel, office, retail and restaurant uses, and location at an urban infill location with nearby access to public transportation and would not incorporate certain VMT reductions from the Project's TA and the TDM trip reductions.

There are challenges in determining consumption-based GHG emissions for embodied GHG emissions, such as the production of construction materials and consumer goods and services, as many require elongated supply chains. Therefore, the data necessary to accurately quantify embodied emissions may not be readily available due to the fact that other jurisdictions (particularly outside California or outside the United States) may not track GHG emissions in sufficient detail. Furthermore, as discussed in the Draft Association of Environmental Professionals (AEP) White Paper: Production, Consumption and Lifecycle Greenhouse Gas Inventories: Implications for CEQA and Climate Action Plans, "CEQA admonishes lead agencies to avoid speculation in completing their analyses and making conclusions. Moreover, CEQA does not require a lead agency to complete every study possible, but rather to fully disclose impacts based on reasonably available data. Developing project-specific estimates of embedded GHG emissions for all construction materials, or future consumed goods and services that are related to complex

¹¹⁹ The CARB's 2022 Climate Change Scoping Plan also demonstrates GHG reductions compared to a Project without implementation of GHG reduction characteristics, features, and measures. In the 2022 Scoping Plan's reference scenario, SB 100 is considered in the Statewide BAU forecast as well as continued reductions through SB 32 through 2030. However, as shown in the 2022 Climate Change Scoping Plan's Appendix J, there is uncertainty of how quickly and the exact timing on when the RPS will be achieved as required by SB 100 by 2030, therefore the 2017 Scoping Plan reference scenario assumptions were used.

supply chains, would require extensive research and may not be able to accurately identify GHG emissions for many consumed items without substantial uncertainty.”¹²⁰

In addition, the State addressed embodied (lifecycle) GHG emissions in the Final Statement of Reasons for Regulatory Action, prepared for the amendment to Appendix F of the CEQA Guidelines pursuant to SB 97:

The amendments to Appendix F remove the term —lifecycle. No existing regulatory definition of —lifecycle exists. In fact, comments received during OPR’s public workshop process indicate a wide variety of interpretations of that term. (Letter from Terry Rivasplata et al. to OPR, February 2, 2009, at pp. 5, 12 and Attachment; Letter from Center for Biological Diversity et al. to OPR, February 2, 2009, at pp. 17.) Thus, retention of the term —lifecycle in Appendix F could create confusion among lead agencies regarding what Appendix F requires. Moreover, even if a standard definition of the term —lifecycle existed, requiring such an analysis may not be consistent with CEQA. As a general matter, the term could refer to emissions beyond those that could be considered —indirect effects of a project as that term is defined in section 15358 of the State CEQA Guidelines. Depending on the circumstances of a particular project, an example of such emissions could be those resulting from the manufacture of building materials. (CAPCOA White Paper, pp. 50–51.) CEQA only requires analysis of impacts that are directly or indirectly attributable to the project under consideration. (State CEQA Guidelines, § 15064(d).) In some instances, materials may be manufactured for many different projects as a result of general market demand, regardless of whether one particular project proceeds. Thus, such emissions may not be caused by the project under consideration. Similarly, in this scenario, a lead agency may not be able to require mitigation for emissions that result from the manufacturing process. Mitigation can only be required for emissions that are actually caused by the project. (CEQA Guidelines Section 15126.4(a)(4).)¹²¹

Therefore, embodied GHG emissions were not considered in this analysis as they are not consistent with generally recommended GHG emissions analysis methodology under CEQA.

¹²⁰ Association of Environmental Professionals, Draft AEP White Paper - Production, Consumption and Lifecycle Greenhouse Gas Inventories: Implications for CEQA and Climate Action Plans, 2017, page 5-3.

¹²¹ California Natural Resources Agency, Final Statement of Reasons for Regulatory Action – Amendments to the State CEQA Guidelines Addressing Analysis and Mitigation of Greenhouse Gas Emissions Pursuant to SB 397, page 71.

c) Project Design Features

Refer to Project Design Feature WS-PDF-1 (Water Conservation Features) in Section IV.L.1, *Utilities and Service Systems – Water Supply*, of this Draft EIR. Project Design Feature WS-PDF-1 includes water conservation features that reduce operational GHG emissions.

The following Project Design Feature related to GHG emissions will also be implemented as part of the Project:

GHG-PDF-1: Green Building Features. The Project would include the following green building features:

- The Project's buildings will be designed to achieve the United States Green Building Council (USGBC) Leadership in Energy and Environmental Design (LEED) Gold Certification or equivalent and will be designed and operated to meet or exceed the applicable requirements of the State of California Green Building Standards Code and the City of Los Angeles Green Building Code.
- The Project will promote alternatives to conventionally fueled automobiles by designating a minimum of eight percent of on-site non-residential parking for carpool and/or alternative-fueled vehicles and shall pre-wire, or install conduit and panel capacity for a minimum of 30 percent of the LAMC-required electric vehicle parking spaces, with 10 percent of the LAMC-required spaces further improved with electric vehicle charging stations.

d) Analysis of Project Impacts

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

Threshold (b): Would the Project conflict with any applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs?

(1) Impact Analysis

As mentioned above, in the absence of any adopted quantitative 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 for the purpose of reducing the emissions of GHGs.

As described above, compliance with a GHG emissions reduction plan renders a less-than-significant impact. The analyses below demonstrate that the Project would not conflict with the applicable GHG emission reduction plans and policies included within

CARB's Climate Change Scoping Plan, the 2020–2045 RTP/SCS, City's Green New Deal, and the Los Angeles Green Building Code. As shown herein, the Project would not conflict with the applicable GHG reduction plans and policies.

(a) *CARB's Climate Change Scoping Plan*

As discussed above, jurisdictions that want to take meaningful climate action (such as preparing a non-CEQA-qualified CAP or as individual measures) aligned with the State's climate goals in the absence of a CEQA-qualified CAP should also look to the three priority areas (transportation electrification, VMT reduction, and building decarbonization). To assist local jurisdictions, the 2022 Scoping Plan Update presents a non-exhaustive list of impactful GHG reduction strategies that can be implemented by local governments within the three priority areas (Priority GHG Reduction Strategies for Local Government Climate Action Priority Areas).¹²² A detailed assessment of goals, plans, policies implemented by the City which would support the GHG reduction strategies in the three priority areas is provided below. In addition, further details are provided regarding the correlation between these reduction strategies and applicable actions included in Table 2-1 (page 72) of the Scoping Plan (Actions for the Scoping Plan Scenario).

Transportation Electrification

The priority GHG reduction strategies for local government climate action related to transportation electrification are discussed below and would support the Scoping Plan action to have 100 percent of all new passenger vehicles to be zero-emission by 2035 (see Table 2-1 of the Scoping Plan).

- **Convert local government fleets to zero-emission vehicles (ZEV)**

The CARB approved the Advanced Clean Cars II rule which codifies Executive Order N-79-20 and requires 100 percent of new cars and light trucks sold in California be zero-emission vehicles by 2035. The State has also adopted AB 2127, which requires the CEC to analyze and examine charging needs to support California's EVs in 2030. This report would help decision-makers allocate resources to install new EV chargers where they are needed most.

The City of LA Green New Deal (Sustainable City pLAn 2019) identifies a number of measures to reduce VMT and associated GHG emissions. Such measures that would support the local reduction strategy include converting all city fleet vehicles to zero emission where technically feasible by 2028. Starting in 2021, all vehicle procurement followed a "zero emission first" policy for City fleets. The Green New Deal also establishes a target to increase the percentage of zero emission vehicles to 25 percent by 2025, 80 percent by 2035 and 100 percent by 2050. In order to achieve this goal, the City would

¹²² Table 1 of Appendix D, 2022 Scoping Plan Update, November 2022.

build 20 Fast Charging Plazas throughout the City. The City would also install 28,000 publicly available chargers by 2028 to encourage adoption of ZEVs.

The City's goals of converting the municipal fleet to zero emissions and installation of EV chargers throughout the City would be consistent with the Scoping Plan goals of transitioning to EVs. Although this measure mainly applies to City fleets, the Project would not conflict with these goals by providing EV charging stations in both the underground and at-grade parking facilities for public visitors. The Project would provide a total of 2,475 parking spaces and the Project design would provide for the installation of the conduit and panel capacity to accommodate future electric vehicle charging stations into a minimum of 30 percent of the parking spaces (approximately 743 spaces), with 10 percent of the LAMC-required spaces further improved with electric vehicle charging stations (approximately 248 spaces). Installation of additional EV chargers would encourage adoption of EVs.

- **Create a jurisdiction-specific ZEV ecosystem to support deployment of ZEVs statewide (such as building standards that exceed state building codes, permit streamlining, infrastructure siting, consumer education, preferential parking policies, and ZEV readiness plans)**

The State has adopted AB 1236 and AB 970, which require cities to adopt streamline permitting procedures for EV charging stations. As a result, the City updated Section IX of the LAMC, which requires most new construction to designate 30 percent of new parking spaces as capable of supporting future electric vehicle supply equipment (EVSE). This would exceed the CALGreen 2022 requirements of 20 percent of new parking spaces as EV capable. The ordinance also requires new construction to install EVSE at 10 percent of total parking spaces. This requirement also exceeds the CALGreen 2022 requirements of installing EVSE for 25 percent of EV capable parking spaces which is approximately five percent of total parking spaces. The City has also implemented programs to increase the amount of EV charging on city streets, EV carshare, and incentive programs for apartments to be retrofitted with EV chargers.

The City's goals of installing EV chargers throughout the City would be consistent with the Scoping Plan goals of transitioning to EVs. In addition, the Project would support this GHG reduction strategy, even as a private development project, by providing EV charging stations in both the underground and at-grade parking facilities for Project-related and public visitors. The Project would provide a total of 2,475 parking spaces and the Project design would provide for the installation of the conduit and panel capacity to accommodate future electric vehicle charging stations into a minimum of 30 percent of the parking spaces (approximately 743 spaces), with 10 percent of the LAMC-required spaces further improved with electric vehicle charging stations (approximately 248 spaces), which would exceed the CALGreen 2022 requirement.

VMT Reduction

The priority GHG reduction strategies for local government climate action related to VMT reduction are discussed below and would support the Scoping Plan action to reduce VMT per capita 25 percent below 2019 levels by 2030 and 30 percent below 2019 levels by 2045.

- **Reduce or eliminate minimum parking standards in new developments**
- **Implement parking pricing or transportation demand management pricing strategies**

The City of Los Angeles Mobility Plan 2035 which is the Transportation Element of the City's General Plan contains measures and programs related to VMT reduction throughout the City. With regard to parking standards, the implementation of Mobility Plan Programs and AB 2097 reduce or eliminate parking requirements for certain types of developments near transit (within half a mile). These reduction strategies and TDM programs would serve to reduce minimum parking standards and reduce vehicle trips.

The Project would implement Transportation Demand Management (TDM) Measures to reduce the Project's single-occupant vehicle trips and associated emissions, and increase the trips arriving via alternative modes of transportation (e.g., walking, bicycle, carpool, vanpool, and transit). The TDM measures may include, but are not limited to, reduced parking supply, parking cash-out, bicycle share station and bicycle parking per LAMC, including short-term and long-term parking facilities. (refer to Section IV.J, *Transportation*, of this Draft EIR, for a discussion of the transportation demand management features).

The Project proposes to provide 2,475 parking stalls and to meet the Los Angeles Municipal Code (LAMC) vehicle parking requirements, within subterranean parking (up to four levels) and six levels of podium parking in Building 2 and four levels of podium parking in Building 9. The Project's vehicular parking requirement under the LAMC is 2,658 spaces. However, pursuant to LAMC Section 12.21 A.4, the Project would replace some required vehicular parking spaces with bicycle parking spaces, which reduces the total vehicular parking requirement to 2,474 spaces.. The Project would include 742 bicycle parking spaces (146 short-term and 596 long-term spaces), as required by LAMC Section 12.21 A.16(a)(2). Therefore, as the Project's parking would be below the LAMC minimum requirements due to increased bicycle parking, the Project would be consistent with the overall intent of this GHG reduction policy through the Project's reduced parking, TDM Measures and increased bicycle parking.

- **Implement Complete Streets policies and investments, consistent with general plan circulation element requirements**

The City of Los Angeles Mobility Plan 2035 established a "Complete Streets" planning framework which resulted in the City of Los Angeles Complete Streets Design Guide in 2015, consistent with California's Complete Streets Act of 2008. A supplemental update to the Complete Streets Design Guide was adopted in 2020.

The Complete Streets Design Guide provides a number of measures to increase public access to electric shuttles, car sharing and walking. The Design Guide establishes guidelines for establishing on-street parking for car sharing. The City has also established BlueLA which is a car sharing network consisting of more than 100 electric vehicles located throughout the City. In addition, under the Green New Deal, the City would install 28,000 publicly available chargers by 2028 and introduce 135 new electric DASH buses.

This reduction strategy mainly applies to City traffic circulation. However, the Project would implement Complete sStreet policies by complying with the General Plan Circulation Element (Mobility Plan 2035) requirements by including features to encourage public transit use, walking and bicycling. The Project would occupy a location within an identified HQTAs and TPAs that is highly accessible by existing transit options as further discussed below, including regional and local bus service and regional rail service with connections to public transportation hubs. In addition, the Project would include approximately 742 bicycle parking spaces, as required by LAMC Section 12.21 A.16(a)(2). Approximately 146 of the total spaces will be short-term spaces, with the remaining 596 spaces designated as long-term bicycle parking spaces. The Project's bicycle parking spaces and facilities will be provided at various locations throughout the Project Site, which include lockers, fix-it/repair stations and showers. Therefore, the Project complies with complete street policies and would not conflict with implementation of Complete Streets policies.

- **Increase access to public transit by increasing density of development near transit, improving transit service by increasing service frequency, creating bus priority lanes, reducing or eliminating fares, microtransit, etc.**
- **Increase public access to clean mobility options by planning for and investing in electric shuttles, bike share, car share, and walking**
- **Amend zoning or development codes to enable mixed-use, walkable, transit-oriented, and compact infill development (such as increasing the allowable density of a neighborhood)**
- **Preserve natural and working lands by implementing land use policies that guide development toward infill areas and do not convert “greenfield” land to urban uses (e.g., green belts, strategic conservation easements).**

These reduction strategies are supported through implementation of SB 375 which requires integration of planning processes for transportation, land-use and housing and generally encourages jobs/housing proximity, promote transit-oriented development (TOD), and encourages high-density residential/commercial development along transit corridors. To implement SB 375 and reduce GHG emissions by correlating land use and transportation planning, SCAG adopted the 2020–2045 RTP/SCS, also referred to as Connect SoCal. The 2020–2045 RTP/SCS' “Core Vision” prioritizes the maintenance and management of the region's transportation network, expanding mobility choices by co-locating housing, jobs, and transit, and increasing investment in transit and complete streets. Please refer below for additional discussion of consistency with the 2020-2045

RTP/SCS and as shown in **Table IV.E-8, Comparison of Project Characteristics with Applicable SCAG 2016–2040 RTP/SCS and 2020–2045 RTP/SCS Actions and Strategies**, below, the Project would not conflict with the 2020-2045 RTP/SCS goals.

On a local level, the City has developed the Complete Streets Design Guide which provides a number of reduction strategies to increase public access to electric shuttles, car sharing and walking, continues to build out networks in the Mobility Plan for pedestrians, bicyclists, and transit users, has implemented an EV car sharing network, and is working towards increasing publicly available chargers, and introducing new electric DASH buses.

The Project is a mixed-use development and represents an infill development at a location served by several local and regional bus lines. The Project Site is located in an HQTAs and TPA. The 2020–2045 RTP/SCS encourages development within TPAs and HQTAs since such areas have convenient access to public transportation options that reduced VMT from automobiles. Existing transit options serving the Project include bus service by Metro and LADOT where the closest bus stop to the Project Site is located at Alameda Street and 4th Street, approximately 100 feet northeast of the Project Site, which is served by the LADOT DASH Route A, which is a downtown route that connects the Arts District and Little Tokyo with the rest of Downtown Los Angeles. Other bus lines in the vicinity of the Project Site include Metro bus lines 16, 18, 53, 50, 62, 72, and 760 and LADOT DASH Route D. The street-level Little Tokyo/Arts District Station was permanently closed in October 2020 due to construction of the Metro Regional Connector project and will be replaced with a new underground platform, to remain named as the “Little Tokyo/Arts District Station”. The new underground Little Tokyo/Arts District Station will be located at Central Avenue & First Street, and is scheduled to open in 2023 as part of the Regional Connector Project, which will run through Downtown Los Angeles and will connect the current Metro Rail A, E, and L Lines. A bus bridge [L Line (Gold) bus shuttle] has replaced Metro L Line service between Union Station and the Pico/Aliso Station until the underground station replacement is completed. The closest new transit station will be located at 1st Street & Central Avenue, approximately 0.40 miles north of the Project Site, which will also serve the Metro L Line. In addition, the Project would include approximately 742 bicycle parking spaces, as required by LAMC Section 12.21 A.16(a)(2). Approximately 146 of the total spaces will be short-term spaces, with the remaining 596 spaces designated as long-term bicycle parking spaces

The Project’s North Site is zoned M2-2D-O and the South and West Sites are zoned M2-2D. “M2” indicates Light Industrial and permits a range of industrial uses prevalent in the area such as warehouses and cold storage facilities, and also permits commercial and office uses. The “2D” indicates Height District 2D, which does not limit the height of buildings on these properties but would limit the FAR to 3:1. Because of the Industrial Designation and the FAR limitation, the Project is seeking a General Plan Amendment pursuant to LAMC Section 11.5.6 A to re-designate the underlying land use from Light Industrial to Regional Commercial, and a Vesting Zone Change and Height District Change pursuant to LAMC Sections 12.32 F, 12.32 H, and 12.32 Q, to change the zone

from M2-2D/M2-2D-O to C2-2, which involves removing the D Development Limitation. The Project is located within the Framework Element's Downtown Center and would be consistent with the General Plan designation that supports hotels, professional offices, corporate headquarters, and high-rise residential towers within the Downtown Center. Further, the Project is seeking Affordable Housing Development Incentives to allow for an FAR increase to 6.95:1; and averaging of FAR, parking, and open space across the Project Site. Refer to Draft EIR, Section IV.F, *Land Use and Planning*, for additional details regarding requested zoning actions for the Project.

The Project would not convert any natural and working lands to urban uses. The Project is an infill project that provides increased opportunities to use alternative transportation modes by co-locating complementary residential, hotel, office, retail, and restaurant land uses on an infill Project Site that is in close proximity to existing off-site commercial and residential uses, being located within a quarter-mile of off-site commercial and residential uses, and located within an identified HQTAs in a highly walkable area well served by public transportation for visitors, residents, employees and patrons and would include 742 bicycle parking spaces, as required by LAMC Section 12.21 A.16(a)(2). Approximately 146 of the total spaces will be short-term spaces, with the remaining 596 spaces designated as long-term bicycle parking spaces. The Project's bicycle parking spaces and facilities will be provided at various locations throughout the Project Site, which include lockers, fix-it/repair stations and showers.

California continues to experience a severe housing shortage. The State must plan for more than 2.5 million residential units over the next eight years, and no less than one million of those residential units must be affordable to lower-income households.¹²³ This represents more than double the housing planned for during the last eight years.¹²⁴ The housing crisis and the climate crisis must be confronted simultaneously, and it is possible to address the housing crisis in a manner that supports the State's climate and regional air quality goals.¹²⁵ CAPCOA's Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity (CAPCOA's Handbook) provides a VMT reduction measurement for incorporation of low-income housing. Measure T-4 (Integrate Affordable and Below Market Rate Housing) shows a 28.6 percent reduction in VMT for low-income units in comparison to market rate units.

As discussed above, the City's Housing Element of the General Plan provides planning guidance in meeting housing needs identified in the SCAG Regional Housing Needs Assessment (RHNA). The current RHNA goal for affordable housing within the City is

¹²³ California Department of Housing and Community Development. 2022. Statewide Housing Plan. Available at www.hcd.ca.gov/docs/statewide-housing-plan.pdf.

¹²⁴ California Department of Housing and Community Development. 2022. Statewide Housing Plan. Available at www.hcd.ca.gov/docs/statewide-housing-plan.pdf.

¹²⁵ Elkind, E. N., Galante, C., Decker, N., Chapple, K., Martin, A., & Hanson, M. 2017. Right Type, Right Place: Assessing the Environmental and Economic Impacts of Infill Residential Development through 2030. Available at <https://turnercenter.berkeley.edu/research-and-policy/right-type-right-place/>.

approximately forty percent of new construction. However, the City's projections show affordable housing comprising twenty percent of new construction, which falls short of the forty percent RHNA goal. In order to address this shortfall, the Housing Element identifies measures to encourage development of affordable housing such as revising density bonuses for affordable housing; identify locations which are ideal for funding programs to meet low-income housing goals; and rezone areas to encourage low-income housing. The Housing Element estimates that implementation of these measures would increase housing production at all income ranges compared to previous cycles. While the City's 20-percent goal of low-income housing for new construction is applicable on a citywide basis and not applicable to an individual project.

The City's 20-percent goal of low-income housing for new construction is applicable on a citywide basis and not applicable to an individual project. The Planning Department Housing Division found based, on market studies and experiences of other agencies, that mandating 20-percent affordable housing on individual projects is likely to reduce overall housing production, including low-income housing, in the City and would be contrary to City and State policies. Pushing more housing outside of the City would be contrary to the Scoping Plan, as infill housing production in the City, which is a highly urbanized city with billions in transit infrastructure, lower average VMT than the SCAG region, is called for in the 2022 Scoping Plan. However, the would comply with Measure JJJ provisions as the Project would set aside 5% of the total rental units for Extremely Low-Income Households. In addition, and consistent with Measure JJJ, between 11% and 40% of the total units built will be set aside for Very Low-, Low-, or Moderate-income households (see Chapter II, *Project Description*, of this Draft EIR, for additional details). Also, as discussed above, the Project would not convert any natural and working lands to urban uses. Also, as the Project is an infill project that provides increased opportunities to use alternative transportation modes by co-locating complementary residential, hotel, office, retail, and restaurant land uses on an infill Project Site that is in close proximity to existing off-site commercial and residential uses, being located within a quarter-mile of off-site commercial and residential uses, and located within an identified HQTAs in a highly walkable area well served by public transportation for visitors, residents, employees and patrons that may help to further reduce GHG emissions. In addition, the Project would provide a total of 2,475 parking spaces and the Project design would provide for the installation of the conduit and panel capacity to accommodate future electric vehicle charging stations into a minimum of 30 percent of the parking spaces (approximately 743 spaces), with 10 percent of the LAMC-required spaces further improved with electric vehicle charging stations (approximately 248 spaces), which would exceed the CALGreen 2022 requirement that may also help to further reduce GHG emissions by encouraging increased EV use.

Therefore, the Project would be consistent with these reduction strategies. While these reduction strategies mainly apply traffic circulation infrastructure within the City, the Project would support these reduction strategies.

Building Decarbonization

The priority GHG reduction strategies for local government climate action related to electrification are discussed below and would support the Scoping Plan actions regarding meeting increased demand for electrification without new fossil gas-fire resources and all electric appliances beginning in 2026 (residential) and 2029 (commercial) (see Table 2-1 of the Scoping Plan).

- **Adopt all-electric new construction reach codes for residential and commercial uses**

California's transition away from fossil fuel-based energy sources will bring the project's GHG emissions associated with building energy use down to zero as our electric supply becomes 100 percent carbon free. California has committed to achieving this goal by 2045 through SB 100, the 100 Percent Clean Energy Act of 2018. SB 100 strengthened the State's Renewables Portfolio Standard (RPS) by requiring that 60 percent of all electricity provided to retail users in California come from renewable sources by 2030 and that 100 percent come from carbon-free sources by 2045. The land use sector will benefit from RPS because the electricity used in buildings will be increasingly carbon-free, but implementation does not depend (directly, at least) on how buildings are designed and built.

The City has updated the LAMC with requirements for all new buildings, with some exceptions to be all-electric, which will reduce GHG emissions related to natural gas combustion. Space heating, water heating and cooking for non-restaurant uses would be required to be powered by electricity. In future years, the LADWP will be required to increase the amount of renewable energy in the power mix to comply with SB 100 requirements. The combination of the all-electric LAMC regulations and increasing availability of renewable energy will serve to reduce GHG emissions from sources traditionally powered by natural gas.

Although this GHG reduction measure is aimed primarily at jurisdictions and not individual projects, as discussed in Section II, *Project Description*, of this Draft EIR and below, the Project would be required to comply with the LAMC and would directly support building electrification as the buildings will utilize electricity instead of natural gas. Accordingly, natural gas would not be supplied to support Project operational activities related to building energy.¹²⁶ While building electrification would result in higher electricity usage, it would eliminate the use of a fossil fuel and the associated GHG emissions (i.e., natural gas combustion) from building energy demand. The Project would not result in installation of any new natural gas infrastructure. In addition, the Project would be designed with Project Design Feature GHG-PDF-1 (Green Building Features), which include the Project buildings achieving the USGBC LEED Gold Certification to improve building energy

¹²⁶ Note that Project restaurant land uses would be all-electric despite the City's exclusion of restaurants from the all-electric building ordinance. Thus, the Project would voluntarily commit to implementing more stringent GHG emissions reduction designs as part of the Project than required by regulation.

efficiency above regulatory requirements. Additional measures include tree landscaping to provide passive solar shading and use cool roof/pavement coatings to reduce the urban heat island effect. The Project would also comply with applicable solar installation regulatory requirements.

The Project would focus on occupant wellness by incorporating healthy materials with low-volatile organic compounds (VOCs), abundant daylight, superior interior lighting quality, and accessible thermal comfort control to prevent sick building syndrome. Other building features would include such items as installation of energy-efficient heating, ventilation, and air conditioning (HVAC) systems that utilize ozone-friendly refrigerants; and dedicated on-site recycling areas. In addition, the Project would support As discussed in the Project's Water Supply Section IV.L.1, *Utilities and Service Systems – Water Supply*, the Project would further reduce water consumption through the additional water conservation features (Project Design Feature PDF-WS-1) of the Project¹²⁷ and potential strategies that include the installation of water efficient fixtures that exceed applicable standards and water efficient landscaping (refer to Section IV.L.1, *Utilities and Service Systems – Water Supply*, of this Draft EIR). Therefore, based on the above, the Project would not conflict with energy strategies in the 2020-2045 RTP/SCS.

- **Adopt policies and incentive programs to implement energy efficiency retrofits for existing buildings, such as weatherization, lighting upgrades, and replacing energy-intensive appliances and equipment with more efficient systems (such as Energy Star-rated equipment and equipment controllers)**

This reduction strategy would support the Scoping Plan action regarding electrification of appliances in existing residential buildings (see Table 2-1 of the Scoping Plan). The City and Los Angeles Department of Water and Power has established rebate programs to promote use of energy-efficient products and home upgrades. Under the LADWP's Consumer Rebate Program (CRP), residential customers would receive rebates for energy-efficient upgrades such as Cool Roofs, Energy Star Windows, HVAC upgrades, pool pumps and insulation upgrades. Such upgrades would serve to reduce wasteful energy and water usage and associated GHG emissions.

The Project would support this measure by meeting or exceeding electricity requirements in the 2022 Building Efficiency Standards which encourages efficient electric heat pumps, establishes electric-ready requirements for new homes, expands solar photovoltaic and battery storage standards, and strengthens ventilation standards. As described above, the Project would directly support building electrification as the buildings will utilize electricity instead of natural gas. Accordingly, natural gas would not be supplied to support Project operational activities related to building energy. While building electrification would result in higher electricity usage, it would eliminate the use of a fossil fuel and the associated GHG emissions (i.e., natural gas combustion) from building energy demand. The Project would not result in installation of any new natural gas

¹²⁷ Los Angeles Department of Water and Power (LADWP), *Water Supply Assessment – Fourth and Central Project (WSA)*, August 2022.

infrastructure. In addition, the Project would be designed with Project Design Feature GHG-PDF-1 (Green Building Features), which include the Project buildings achieving the USGBC LEED Gold Certification to improve building energy efficiency above regulatory requirements. Additional measures include tree landscaping to provide passive solar shading and use cool roof/pavement coatings to reduce the urban heat island effect. The Project would also comply with applicable solar installation regulatory requirements. The Project would focus on occupant wellness by incorporating healthy materials with low-volatile organic compounds (VOCs), abundant daylight, superior interior lighting quality, and accessible thermal comfort control to prevent sick building syndrome. Other building features would include such items as installation of energy-efficient heating, ventilation, and air conditioning (HVAC) systems that utilize ozone-friendly refrigerants; and dedicated on-site recycling areas.

In addition to energy efficiency measures, the Project would result in carbon sequestration benefits by planting 422 net new California native trees. The planting of trees sequesters CO₂ while the trees are actively growing, which typically occurs over a 20-year period.¹²⁸ In addition, according to the United States Environmental Protection Agency (USEPA), trees help reduce urban heat island effects by shading building and ground surfaces, deflecting radiation from the sun, and releasing moisture into the atmosphere, which results in cooling through evapotranspiration.¹²⁹ Thus, the Project would include climate beneficial components to sequester carbon and contribute to increased local cooling through evapotranspiration. Therefore, the Project would be consistent and not conflict with policies to implement energy efficiency retrofits.

As a result, the Project would not conflict with applicable Climate Change Scoping Plan strategies and regulations to reduce GHG emissions.

(i) *Post-2030 Analysis*

The 2022 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. 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 2022 Scoping Plan, the Project would support or not impede implementation of these potential GHG reduction strategies identified by CARB for all the reasons summarized above.

¹²⁸ California Air Pollution Control Association, California Emissions Estimator Model (CalEEMod), User's Guide, Appendix C – Calculation Details for CalEEMod, page 70, April 2022.

¹²⁹ U.S. Environmental Protection Agency, Reduce Urban Heat Island Effect, November 2, 2020, <https://www.epa.gov/green-infrastructure/reduce-urban-heat-island-effect>, accessed December 1, 2020.

In June 2018, an updated report was published on the California PATHWAYS model, which was used in the preparation of both the 2022 Scoping Plan and 2017 Scoping Plan. This report determined that “meeting the state’s 2030 climate goals requires scaling up and using technologies already in the market such as energy efficiency and renewables, while pursuing aggressive market transformation of new technologies that have not yet been utilized at scale in California (for example, zero-emission vehicles and electric heat pumps).”¹³⁰ Priority GHG reduction strategies include energy efficiency in buildings, renewable energy, and smart growth through increased use of public transit, walking, biking, telepresence, and denser, mixed-use community design. The Project would not conflict with these strategies given it would locate residential, hotel, office, retail and restaurant uses on an infill Project Site located within a walkable area of the Central City East District of the City’s Central City Community Plan area with access to public transit and employment opportunities, restaurants and entertainment. Several transit providers operate service within the immediate vicinity, including Metro and LADOT where the closest bus stop to the Project Site is located at Alameda Street and 4th Street, approximately 100 feet northeast of the Project Site, which is served by the LADOT DASH Route A, which is a downtown route that connects the Arts District and Little Tokyo with the rest of Downtown Los Angeles. Other bus lines in the vicinity of the Project Site include Metro bus lines 16, 18, 53, 50, 62, 72, and 760 and LADOT DASH Route D. The Metro Little Tokyo/Arts District station, which is expected to complete construction and open in 2023, will be location on 1st Street between Alameda and Central Avenue, approximately 0.3 miles north of the Project’s North Site. Furthermore, the Project would support the priority market transformation strategy of zero-emission light-duty vehicles by providing for the installation of the conduit and panel capacity to accommodate future electric vehicle charging stations into a minimum of 30 percent of the parking spaces, with 10 percent of the LAMC-required spaces further improved with electric vehicle charging stations. As such, the Project would not conflict with the findings relevant to the Project from the updated California PATHWAYS model report.

With Statewide efforts underway to facilitate the State’s achievement of those Statewide goals, it is reasonable to expect the Project’s GHG emissions to decline from their opening year levels as reported in Table IV.E-11, below, as the regulatory initiatives identified by CARB in the 2022 Scoping Plan are implemented, and other technological innovations occur. Stated differently, the Project’s emissions at buildout likely represents the maximum emissions for the Project as anticipated regulatory developments and technology advances are expected to reduce emissions associated with the Project, such as emissions related to electricity use and vehicle use.

Even though the 2022 Scoping Plan and supporting documentation do not provide an exact regulatory and technological roadmap to achieve carbon neutrality by 2045 as established by AB 1279, they demonstrate that various combinations of policies could

¹³⁰ California Energy Commission, Energy Research and Development Division, Final Project Report, Deep Decarbonization in a High Renewables Future Updated Results from the California PATHWAYS Model, June 2018.

allow the Statewide emissions level to remain very low through 2045, suggesting that the combination of new technologies and other regulations not currently feasible at the time the 2022 Scoping Plan was adopted could enable the State to meet the 2045 targets.¹³¹ For example, the 2022 Scoping Plan states some policies are not feasible at this time, such as ZEV technology for off-road equipment and for propulsion, such as commercial aircraft or ocean-going vessels, but that this type of policy would be necessary to meet the 2045 target.

Based on the above, the Project would not conflict with CARB's Climate Change Scoping Plan, and there would be an anticipated decline in Project emissions once fully constructed and operational; the Project would not conflict with the State's GHG reduction targets for 2030, 2045 and 2050. Therefore, impacts would be less than significant. As stated above, a detailed consistency table that contains a list of the State's Climate Change Scoping Plan GHG-reducing strategies relevant to the Project and describes that the Project would not conflict with the Climate Change Scoping Plan is available in the *Air Quality and Greenhouse Gas Technical Documentation* appendix for the Project, which is provided in Appendix B of this Draft EIR.

(b) *SCAG's 2020–2045 RTP/SCS*

Transportation-related GHG emissions would be the largest source of emissions from the Project. This finding is consistent with the findings in regional plans, including the 2020–2045 RTP/SCS, which recognizes that the transportation sector is the largest contributor to the State's GHG emissions. At the regional level, the 2020–2045 RTP/SCS is an applicable plan adopted for the purpose of reducing GHGs.

The purpose of the 2020–2045 RTP/SCS is to achieve the regional per capita GHG reduction targets for the passenger vehicle and light-duty truck sector established by CARB pursuant to SB 375. To accomplish this goal, the 2020–2045 RTP/SCS identifies various strategies to reduce per capita VMT. The 2020–2045 RTP/SCS is expected to help SCAG reach its GHG reduction goals, as identified by CARB, with reductions in per capita passenger vehicle GHG emissions for specified target years.

In addition to demonstrating the region's ability to attain and exceed 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. With regard to individual developments, such as the Project, strategies and policies set forth in the 2020–2045 RTP/SCS can be grouped into the following three categories: (1) reduction of vehicle trips and VMT, (2) increased

¹³¹ California Air Resources Board. 2022. 2022 Scoping Plan For Achieving Carbon Neutrality, November 16. 2022 Scoping Plan Update (ca.gov). Accessed December 19, 2022.

use of alternative fuel vehicles, and (3) improved energy efficiency. These strategies and policies are addressed below.

In order to assess the Project's potential to conflict with the 2020–2045 RTP/SCS, this section analyzes the Project's land use characteristics for consistency with the strategies and policies set forth in the 2020–2045 RTP/SCS to meet GHG emission-reduction targets set by CARB.¹³² Generally, projects are considered to not conflict with applicable land use plans and regulations, such as the 2020–2045 RTP/SCS, if they are compatible with the general intent of the plans and would not preclude the attainment of their primary goals. As shown in **Table IV.E-8, Comparison of Project Characteristics with Applicable SCAG 2016–2040 RTP/SCS and 2020–2045 RTP/SCS Actions and Strategies**, below, the Project would not conflict with the 2020–2045 RTP/SCS goals and benefits intended to improve mobility and access to diverse destinations, provide better “placemaking,” provide more transportation choices, and reduce vehicular demand and associated emissions. 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.

As discussed in the above analysis and in **Table IV.E-8, Comparison of Project Characteristics with Applicable SCAG 2016–2040 RTP/SCS and 2020–2045 RTP/SCS Actions and Strategies**, the Project would be consistent with and support the goals and benefits of the 2020-2045 RTP/SCS that are potentially applicable to the Project. As a result, the Project would be consistent with, and would not conflict with, applicable 2020-2045 RTP/SCS actions and strategies to reduce GHG emissions.

¹³² As discussed in the 2020–2045 RTP/SCS, the actions and strategies included in the 2020–2045 RTP/SCS remain unchanged from those adopted in the 2012–2035 and 2016–2040 RTP/SCS.

**TABLE IV.E-8
COMPARISON OF PROJECT CHARACTERISTICS WITH APPLICABLE SCAG 2016-2040 RTP/SCS AND
2020-2045 RTP/SCS ACTIONS AND STRATEGIES**

Actions and Strategies	Responsible Party(ies)	Conflict Analysis
Land Use Actions and Strategies		
<p>Encourage the use of range-limited battery electric and other alternative fueled vehicles through policies and programs, such as, but not limited to, neighborhood oriented development, complete streets, and Electric (and other alternative fuel) Vehicle Supply Equipment in public parking lots.</p>	<p>Local Jurisdictions, COGs, SCAG, CTCs</p>	<p>Would Not Conflict. This action applies to local jurisdictions, COGs, SCAG and County Transportation Commissions (CTCs). While the use of alternative-fueled vehicles is beyond the direct control or influence of the Project, the Project would encourage the use of alternative-fueled vehicles by designating a minimum of eight percent of on-site non-residential parking for carpool and/or alternative-fueled vehicles. In addition, the Project design provides for the installation of the conduit and panel capacity to accommodate future electric vehicle charging stations into a minimum of 30 percent of the parking spaces, with 10 percent of the Code-required spaces further improved with electric vehicle charging stations.</p>
<p>Support projects, programs, and policies that support active and healthy community environments that encourage safe walking, bicycling, and physical activity by children, including, but not limited to development of complete streets, school siting policies, joint use agreements, and bicycle and pedestrian safety education.</p>	<p>Local Jurisdictions, SCAG</p>	<p>Would Not Conflict. While this action applies to local jurisdictions and SCAG, the Project would provide approximately 90,113 sf of publicly accessible open space, consisting of plazas and paseos passing between Central Avenue and Alameda Street and a Central Courtyard in the South Site that would provide linkages to the surrounding pedestrian walkways There are a total of 12 individually curated publicly accessible open space areas (see Chapter II, <i>Project Description</i>, of this Draft EIR for additional details). The Project would locate residential, hotel, office, retail and restaurant uses on an infill Project Site located within a walkable area of the Central City East District neighborhood in Los Angeles with access to public transit. The Project would also provide 742 bicycle parking spaces, where approximately 146 of the total spaces will be short-term spaces and 596 spaces designated as long-term bicycle parking spaces on-site to encourage utilization of alternative modes of transportation.</p>

**TABLE IV.E-8
COMPARISON OF PROJECT CHARACTERISTICS WITH APPLICABLE SCAG 2016-2040 RTP/SCS AND
2020-2045 RTP/SCS ACTIONS AND STRATEGIES**

Actions and Strategies	Responsible Party(ies)	Conflict Analysis
Update local zoning codes, General Plans, and other regulatory policies to promote a more balanced mix of residential, commercial, industrial, recreational and institutional uses located to provide options and to contribute to the resiliency and vitality of neighborhoods and districts.	Local Jurisdictions	<p>Would Not Conflict. While this action applies to local jurisdictions, the Project would support this action/strategy by creating a mixed-use development comprising of residential, hotel, office, retail, and restaurant land uses that offer employment and other community-serving opportunities. The Project supports the development of a balanced mixed of uses by co-locating complementary residential, hotel, office, retail, and restaurant land uses on an infill Project Site that is in close proximity to existing off-site commercial and residential uses, being located within a quarter-mile of off-site commercial and residential uses, and located within an identified HQTAs in a highly walkable area well served by public transportation. Several transit providers operate service within the immediate vicinity, including Metro and LADOT where the closest bus stop to the Project Site is located at Alameda Street and 4th Street, approximately 100 feet northeast of the Project Site, which is served by the LADOT DASH Route A, which is a downtown route that connects the Arts District and Little Tokyo with the rest of Downtown Los Angeles. Other bus lines in the vicinity of the Project Site include Metro bus lines 16, 18, 53, 50, 62, 72, and 760 and LADOT DASH Route D. The street-level Little Tokyo/Arts District Station was permanently closed in October 2020 due to construction of the Metro Regional Connector project and will be replaced with a new underground platform, to remain named as the “Little Tokyo/Arts District Station”. The new underground Little Tokyo/Arts District Station will be located at Central Avenue & First Street and is scheduled to open in 2023 as part of the Regional Connector Project, which will run through Downtown Los Angeles and will connect the current Metro Rail A, E, and L Lines. A bus bridge [L Line (Gold) bus shuttle) has replaced Metro L Line service between Union Station and the Pico/Aliso Station until the underground station replacement is completed. The closest new transit station will be located at 1st Street & Central Avenue, approximately 0.40 miles north of the Project Site, which will also serve the Metro L Line.</p>

**TABLE IV.E-8
COMPARISON OF PROJECT CHARACTERISTICS WITH APPLICABLE SCAG 2016-2040 RTP/SCS AND
2020-2045 RTP/SCS ACTIONS AND STRATEGIES**

Actions and Strategies	Responsible Party(ies)	Conflict Analysis
<p>Support projects, programs, policies and regulations that encourage the development of complete communities, which includes a diversity of housing choices and educational opportunities, jobs for a variety of skills and education, recreation and culture, and a full-range of shopping, entertainment and services all within a relatively short distance.</p>	<p>Local Jurisdictions, SCAG</p>	<p>Would Not Conflict. While this action applies to local jurisdictions and SCAG, the Project supports the development of complete communities by co-locating complementary residential, office, restaurant/retail, and hotel land uses within a quarter-mile of existing off-site commercial and residential uses, and within an identified HQTA in a walkable area served by transit. The increases in land use density and mix of uses on the Project Site would reduce vehicle trips and VMT by encouraging walking and non-automotive forms of transportation, which would result in corresponding reductions in transportation-related emissions.</p>
<p>Pursue joint development opportunities to encourage the development of housing and-mixed-use projects around existing and planned rail stations or along high-frequency bus corridors, in transit-oriented development areas, and in neighborhood-serving commercial areas.</p>	<p>Local Jurisdictions, CTCs</p>	<p>Would Not Conflict. While this action applies to local jurisdictions and CTCs, the Project is a mixed-use development on an infill site located within an identified HQTA that is well served by public transportation. Several transit providers operate service within the immediate vicinity, including Metro and LADOT where the closest bus stop to the Project Site is located at Alameda Street and 4th Street, approximately 100 feet northeast of the Project Site, which is served by the LADOT DASH Route A, which is a downtown route that connects the Arts District and Little Tokyo with the rest of Downtown Los Angeles. Other bus lines in the vicinity of the Project Site include Metro bus lines 16, 18, 53, 50, 62, 72, and 760 and LADOT DASH Route D. The street-level Little Tokyo/Arts District Station was permanently closed in October 2020 due to construction of the Metro Regional Connector project and will be replaced with a new underground platform, to remain named as the “Little Tokyo/Arts District Station”. The new underground Little Tokyo/Arts District Station will be located at Central Avenue & First Street, and is scheduled to open in 2023 as part of the Regional Connector Project, which will run through Downtown Los Angeles and will connect the current Metro Rail A, E, and L Lines. A bus bridge [L Line (Gold) bus shuttle] has replaced Metro L Line service between Union Station and the Pico/Aliso Station until the underground station replacement is completed. The closest new transit station will be located at 1st Street & Central Avenue, approximately 0.40 miles north of the Project Site, which will also serve the Metro L Line.</p>

**TABLE IV.E-8
COMPARISON OF PROJECT CHARACTERISTICS WITH APPLICABLE SCAG 2016-2040 RTP/SCS AND
2020-2045 RTP/SCS ACTIONS AND STRATEGIES**

Actions and Strategies	Responsible Party(ies)	Conflict Analysis
Create incentives for local jurisdictions and agencies that support land use policies and housing options that achieve the goals of SB 375.	State, SCAG	Would Not Conflict. While this action applies to the State and SCAG, the Project would be consistent with and would not conflict with the goals of SB 375, including the goal to reduce VMT and the corresponding emission of GHGs through infill development. The Project is a mixed-use development comprising of residential, hotel, office, retail, and restaurant land uses located on an urban infill Project Site within an identified HQT. It co-locates its complementary residential, office, restaurant/retail, and hotel land uses, which are in close proximity to existing off-site commercial and residential uses. The Project is also located in a highly walkable area served by transit within a quarter-mile of the Project Site. The increases in land use intensity and diversity and mix of uses on the Project Site would reduce vehicle trips and VMT by encouraging walking and non-automotive forms of transportation, which would result in corresponding reductions in transportation-related emissions.
Transportation Network Actions and Strategies		
Collaborate with local jurisdictions to plan and develop residential and employment development around current and planned transit stations and neighborhood commercial centers.	SCAG, CTCs, Local Jurisdictions	Would Not Conflict. While this action applies to local jurisdictions, SCAG and CTCs, the Project's mixed-use development would intensify development in an area well served by public transportation. Several transit providers operate service within the immediate vicinity, including Metro and LADOT where the closest bus stop to the Project Site is located at Alameda Street and 4th Street, approximately 100 feet northeast of the Project Site, which is served by the LADOT DASH Route A, which is a downtown route that connects the Arts District and Little Tokyo with the rest of Downtown Los Angeles. Other bus lines in the vicinity of the Project Site include Metro bus lines 16, 18, 53, 50, 62, 72, and 760 and LADOT DASH Route D. Furthermore, the Project would provide high-density residential, hotel, office, retail, and restaurant land uses in an area with access to a range of existing entertainment and commercial uses.

**TABLE IV.E-8
COMPARISON OF PROJECT CHARACTERISTICS WITH APPLICABLE SCAG 2016-2040 RTP/SCS AND
2020-2045 RTP/SCS ACTIONS AND STRATEGIES**

Actions and Strategies	Responsible Party(ies)	Conflict Analysis
Transportation Demand Management (TDM) Actions and Strategies		
Support work-based programs that encourage emission reduction strategies and incentivize active transportation commuting or ride-share modes.	SCAG, Local Jurisdictions	Would Not Conflict. While this action applies to local jurisdictions and SCAG, and is not applicable to individual projects, the Project would incorporate pedestrian pathways that connect to the existing sidewalk network, and would provide bicycle parking spaces and facilities.
Clean Vehicle Technology Actions and Strategies		
Support subregional strategies to develop infrastructure and supportive land uses to accelerate fleet conversion to electric or other near zero-emission technologies. The activities committed in the two subregions (Western Riverside COG and South Bay Cities COG) are put forward as best practices that others can adopt in the future.	SCAG, Local Jurisdictions	Would Not Conflict. While this action applies to local jurisdictions and SCAG, as discussed above, while directing the use of alternative-fueled vehicles is beyond the direct control or influence of individual projects, the Project would not interfere with the City’s or SCAG’s ability to encourage the use of alternative-fueled vehicles through various policies and programs. Specifically, the Project would support a land use pattern that provides increased opportunities to use alternative transportation modes by co-locating complementary residential, office, restaurant/retail, and hotel land uses within a quarter-mile of existing off-site commercial and residential uses, and within an identified HQTAs in a walkable area served by transit. The Project would encourage the use of alternative-fueled vehicles by designating a minimum of eight percent of on-site non-residential parking for carpool and/or alternative-fueled vehicles. In addition, the Project design will provide for the installation of the conduit and panel capacity to accommodate future electric vehicle charging stations into a minimum of 30 percent of the parking spaces, with 10 percent of the Code-required spaces further improved with electric vehicle charging stations.

SOURCE: ESA, 2022.

(i) Integrated Growth Forecast

The 2020–2045 RTP/SCS provides socioeconomic forecast projections of regional population growth. The population, housing, and employment forecasts, which are adopted by SCAG’s Regional Council, are based on the local plans and policies applicable to the specific area; these are used by SCAG in all phases of implementation and review. The Project would introduce new residential uses, new businesses, and new employees. Based on the 2020–2045 RTP/SCS growth projections, the Project’s proposed 3,423 population increase would comprise approximately 1.5 percent of SCAG’s year 2030 estimated increase of 231,034 households within the City and approximately 0.5 percent of SCAG’s 2045 estimated increase of 664,224 population growth within the City, relative to 2022.¹³³ Based on the 2020–2045 RTP/SCS growth projections, the Project’s proposed 1,521 housing units would comprise approximately 1.3 percent of SCAG’s year 2030 estimated increase of 117,517 households within the City and approximately 0.5 percent of SCAG’s 2045 estimated increase of 337,862 households within the City, relative to 2022.¹³⁴ Based on the 2020–2045 RTP/SCS growth projections, the Project would result in an increase in the number of employees on the Project Site of approximately 2,039 net new employees, which would comprise approximately 2.6 percent of SCAG’s year 2030 estimated increase of 79,337 employees within the City and approximately 0.9 percent of SCAG’s 2045 estimated increase of 228,096 employees within the City.¹³⁵ However, the Project would have a small effect on the overall employment projections for the City. The Project’s contribution to population, housing and employment would be consistent with SCAG population, housing and employment projections for the City and would be consistent with SCAG’s RTP/SCS goals and with the growth projections contained in the 2020–2045 RTP/SCS. Accordingly, the Project’s generation of population, households and employees would not conflict with employment generation projections contained in the 2020–2045 RTP/SCS. Refer to Section IV.F, *Land Use and Planning*, of this Draft EIR, for additional information regarding consistency with the 2020–2045 RTP/SCS.

(ii) VMT Reduction Strategies and Policies

The Project represents an infill development at a location served by several local and regional bus lines. The Project Site is located in an HQTAs and TPAs. The 2020–2045 RTP/SCS encourages development within TPAs and HQTAs since such areas have convenient access to public transportation options that reduced VMT from automobiles. Existing transit options serving the Project include bus service by Metro and LADOT where the closest bus stop to the Project Site is located at Alameda Street and 4th Street, approximately 100 feet northeast of the Project Site, which is served by the LADOT DASH Route A, which is a downtown route that connects the Arts District and Little Tokyo with the rest of Downtown Los Angeles. Other bus lines in the vicinity of the Project Site include

¹³³ Refer to Section IV. H, *Population and Housing*, of this Draft EIR for additional information.

¹³⁴ Refer to Section IV.H, *Population and Housing*, of this Draft EIR for additional information.

¹³⁵ Refer to Section IV.H, *Population and Housing*, of this Draft EIR for additional information.

Metro bus lines 16, 18, 53, 50, 62, 72, and 760 and LADOT DASH Route D. The street-level Little Tokyo/Arts District Station was permanently closed in October 2020 due to construction of the Metro Regional Connector project and will be replaced with a new underground platform, to remain named as the “Little Tokyo/Arts District Station”. The new underground Little Tokyo/Arts District Station will be located at Central Avenue & First Street, and is scheduled to open in 2023 as part of the Regional Connector Project, which will run through Downtown Los Angeles and will connect the current Metro Rail A, E, and L Lines. A bus bridge [L Line (Gold) bus shuttle] has replaced Metro L Line service between Union Station and the Pico/Aliso Station until the underground station replacement is completed. The closest new transit station will be located at 1st Street & Central Avenue, approximately 0.40 miles north of the Project Site, which will also serve the Metro L Line. In addition, the Project would include approximately 742 bicycle parking spaces, as required by LAMC Section 12.21 A.16(a)(2). Approximately 146 of the total spaces will be short-term spaces, with the remaining 596 spaces designated as long-term bicycle parking spaces. The Project’s bicycle parking spaces and facilities will be provided at various locations throughout the Project Site, which include lockers, fix-it/repair stations and showers. The Project would provide residents, visitors, and employees with the ability to access nearby public transit and opportunities for walking and biking, which would facilitate a reduction in VMT and related vehicular GHG emissions, and would not conflict with the VMT Reduction Strategies and Policies of the 2020–2045 RTP/SCS.

The Project would also not be in conflict with the following key GHG reduction strategies in the 2020–2045 RTP/SCS as substantiated below, which are based on changing the region’s land use and travel patterns in the following key areas¹³⁶:

- Compact growth in areas accessible to transit;
- Locate jobs in proximity to transit;
- Locate job growth focused in Priority Growth Areas; and
- Biking and walking infrastructure to improve active transportation options and transit access.

As discussed previously, the Project represents an infill development well served by public transportation. As described under subsection IV.F.3.d(1)(a)(ii), *CARB’S Climate Change Scoping Plan*, above, several transit providers operate service within the immediate vicinity of the Project Site. The 2020–2045 RTP/SCS focuses on orienting job growth in Priority Growth Areas served by high quality transit and into other infill areas where urban infrastructure already exists. The Project supports this by locating residential, hotel, office, retail and restaurant uses at an urban infill location with an existing street grid and in proximity to existing public transit options and in proximity to off-site uses (i.e., commercial, shopping and entertainment businesses and neighborhood housing uses) and would allow

¹³⁶ Southern California Association of Governments, 2020–2045 RTP/SCS, May 2020, pp. 3, 21, 26, 50, 52, 69, and 144.

people in the neighborhood and community to utilize the nearby Project Site land uses. The Project's bicycle parking spaces and facilities will be provided at various locations throughout the Project Site, which include lockers, fix-it/repair stations and showers, which would facilitate a reduction in VMT and related vehicular GHG emissions, which would not conflict with the goals of the 2020–2045 RTP/SCS.

By locating the Project's residential, hotel, office, retail and restaurant uses within an area that has existing high quality public transit (with access to existing local and regional bus service) and employment opportunities within walking distance, and by including features that support and encourage pedestrian activity and other non-vehicular transportation and increased transit use in the Central City East District of the Central City Community Plan area, the Project would reduce vehicle trips and VMT and resulting air pollution and GHG emissions. Therefore, by facilitating a land use pattern that promotes sustainability, the Project's characteristics developed at its location would not conflict with VMT objectives of the 2020–2045 RTP/SCS.

(iii) Increased Use of Alternative Fueled Vehicles Policy Initiative

A goal of the 2020–2045 RTP/SCS, with regard to individual development projects, such as the Project, is to increase alternative fueled vehicles to reduce per capita GHG emissions. The 2020–2045 RTP/SCS policy initiative focuses on providing charge port infrastructure and accelerating fleet conversion to electric or other near zero-emission technologies. The Project would provide at least 10 percent of the total LAMC-required parking spaces with EV charging stations and 30 percent of the total LAMC-required parking spaces provided to be capable of supporting future EVSE as dictated by City requirements. As such, the Project would not conflict with this goal of the 2020–2045 RTP/SCS.

(iv) Energy Efficiency Strategies and Policies

The 2020–2045 RTP/SCS includes strategies for individual developments, such as the Project, to improve energy efficiency (e.g., reducing energy consumption) to reduce GHG emissions. As discussed in Section II, *Project Description*, of this Draft EIR, the Project has been designed and would be constructed to incorporate environmentally sustainable building features and construction protocols required by the Los Angeles Green Building Code and CALGreen Code. These standards would reduce energy and water usage and waste and, thereby, reduce associated greenhouse gas emissions and help minimize the impact on natural resources and infrastructure. The Project would include energy-saving measures. These measures include Project Design Feature GHG-PDF-1 (Green Building Features), which include the Project buildings achieving the USGBC LEED Gold Certification to improve building energy efficiency above regulatory requirements. Additional measures include tree landscaping to provide passive solar shading and use cool roof/pavement coatings to reduce the urban heat island effect. The Project would also comply with applicable solar installation regulatory requirements. The Project would focus on occupant wellness by incorporating healthy materials with low-volatile organic

compounds (VOCs), abundant daylight, superior interior lighting quality, and accessible thermal comfort control to prevent sick building syndrome. Other building features would include such items as installation of energy-efficient heating, ventilation, and air conditioning (HVAC) systems that utilize ozone-friendly refrigerants; and dedicated on-site recycling areas. These measures were generally accounted for based on the 2019 Title 24 standards.

The Project would include water sustainability features, which would include, but not limited to, low flow/efficient water fixtures, rainwater capture systems, drought-tolerant/California native plant species selection, landscape contouring to minimize precipitation runoff, irrigation system efficiency, smart irrigation systems (e.g., weather-based controls), and water-saving pool equipment as discussed in Section II, *Project Description* (see Section II, *Project Description*, for additional details). Therefore, based on the above, the Project would not conflict with energy strategies in the 2020–2045 RTP/SCS.

(v) *Land Use Characteristics*

In order to assess the Project's consistency with the 2020–2045 RTP/SCS, this Draft EIR also analyzes the Project's land use characteristics, such as density and proximity to job centers, for consistency with those utilized by SCAG in its SCS. The Project's consistency with the applicable land use goals and principles set forth in the 2020–2045 RTP/SCS is discussed in Section IV.F, *Land Use and Planning*, **Table LU-1, Consistency of the Project with Applicable Strategies of the 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy Intended to Avoid or Mitigate an Environmental Effect**, provided in Appendix F of this Draft EIR. As concluded therein, the Project would not conflict with applicable land use strategies of the 2020–2045 RTP/SCS.

(vi) *Conclusion*

As discussed in the above analysis, the Project would not conflict with and would support the goals and benefits of the 2020–2045 RTP/SCS to reduce GHG emissions that are potentially applicable to the Project. As stated above, a detailed consistency table that contains a list of the 2020–2045 RTP/SCS actions and strategies GHG-reducing strategies applicable to the Project and describes that the Project would not conflict with the 2020–2045 RTP/SCS is available in the *Air Quality and Greenhouse Gas Technical Documentation* appendix for the Project, which is provided in Appendix B of this Draft EIR. Accordingly, the Project is the type of land use development that is encouraged by the 2020–2045 RTP/SCS to reduce VMT and expand multi-modal transportation options in order for the region to achieve the GHG reductions from the land use and transportation sectors required by SB 375, which, in turn, advances the State's long-term climate policies. By furthering implementation of SB 375, the Project supports regional land use and transportation GHG reductions consistent with State regulatory requirements.

(c) *City’s Green New Deal*

The City’s Green New Deal includes both short-term and long-term aspirations through the year 2050 in various topic areas, including water, solar power, energy-efficient buildings, carbon and climate leadership, waste and landfills, housing and development, mobility and transit, and air quality, among others.

While not a plan adopted solely to reduce GHG emissions, within the City’s Green New Deal, climate mitigation is one of eight explicit benefits that help define its strategies and goals. Although the Green New Deal mainly targets GHG emissions related to City-owned buildings and operations, certain reductions associated with the Project would promote the Green New Deal’s goals. Such measures include increasing renewable energy usage; reduction of per capita water usage; promotion of walking and biking, promotion of educational and recreational uses close to transit; and various recycling and trash diversion goals. **Table IV.E-9, Comparison of Project Characteristics to Applicable City of Los Angeles Green New Deal Goals and Actions**, contains a list of GHG emission-reducing strategies applicable to the Project. The analysis describes the consistency of the Project with these GHG emissions-reduction goals and actions. As discussed in Table IV.E-9, the Project would be consistent with and would not conflict with the applicable goals and actions of these plans. In addition, as discussed below, the Project would also result in GHG reductions beyond those specified by the City and would minimize its GHG emissions by incorporating energy efficient design features and VMT reduction characteristics.

**TABLE IV-E-10
COMPARISON OF PROJECT CHARACTERISTICS TO APPLICABLE CITY OF LOS ANGELES
GREEN NEW DEAL GHG EMISSIONS GOALS AND ACTIONS**

Target	Project Consistency
Chapter 3: Local Water	
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.	Would Not Conflict. While this action primarily applies to the City and LADWP and not to individual projects, the Project would meet this requirement as part of its compliance with the City’s requirements, and the CALGreen Code.
Chapter 4: Clean and Healthy Buildings	
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 mBTU/sqft in 2015).	Would Not Conflict. While this action applies to City departments and not to private development, the Project is designed and would operate to meet or exceed the applicable requirements of the CALGreen Code and the Green Building Code.
All new buildings will be net zero carbon by 2030 and 100 percent of buildings will be net zero carbon by 2050.	Would Not Conflict. 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. As a result, the Project would help the City move toward a net zero carbon future.

TABLE IV-E-10
COMPARISON OF PROJECT CHARACTERISTICS TO APPLICABLE CITY OF LOS ANGELES
GREEN NEW DEAL GHG EMISSIONS GOALS AND ACTIONS

Target	Project Consistency
Chapter 5: Housing & Development	
Ensure 57 percent of new housing units are built within 1,500 feet of transit by 2025; and 75 percent by 2035.	Would Not Conflict. The Project would reduce VMT as a result of its urban infill location well served by public transportation. Several transit providers operate service within the immediate vicinity, including Metro and LADOT where the closest bus stop to the Project Site is located at Alameda Street and 4th Street, approximately 100 feet northeast of the Project Site, which is served by the LADOT DASH Route A, which is a downtown route that connects the Arts District and Little Tokyo with the rest of Downtown Los Angeles. Other bus lines in the vicinity of the Project Site include Metro bus lines 16, 18, 53, 50, 62, 72, and 760 and LADOT DASH Route D.
Chapter 6: Mobility & Public Transit	
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.	Would Not Conflict. The Project would facilitate pedestrian and bicycle movements by providing approximately 90,113 sf of publicly accessible open space, consisting of plazas and paseos passing between Central Avenue and Alameda Street and a Central Courtyard in the South Site that would provide linkages to the surrounding pedestrian walkways. There are a total of 12 individually curated publicly accessible open space areas (see Chapter II, <i>Project Description</i> , of this Draft EIR for additional details). The Project would locate residential, hotel, office, retail and restaurant uses on an infill Project Site located within a walkable area of the Central City East District neighborhood in Los Angeles with access to public transit and employment opportunities, restaurants and entertainment. The Project would also provide 742 bicycle parking spaces, where approximately 146 of the total spaces will be short-term spaces and 596 spaces designated as long-term bicycle parking spaces on-site to encourage utilization of alternative modes of transportation area. Additionally, the Project would co-locate its complementary residential, office, restaurant/retail, and hotel land uses, which are in close proximity to existing off-site commercial and residential uses. In addition, the Project Site is well served by public transportation. Several transit providers operate service within the immediate vicinity, including Metro and LADOT where the closest bus stop to the Project Site is located at Alameda Street and 4th Street, approximately 100 feet northeast of the Project Site, which is served by the LADOT DASH Route A, which is a downtown route that connects the Arts District and Little Tokyo with the rest of Downtown Los Angeles. Other bus lines in the vicinity of the Project Site include Metro bus lines 16, 18, 53, 50, 62, 72, and 760 and LADOT DASH Route D. The street-level Little Tokyo/Arts District Station was permanently closed in

TABLE IV-E-10
COMPARISON OF PROJECT CHARACTERISTICS TO APPLICABLE CITY OF LOS ANGELES
GREEN NEW DEAL GHG EMISSIONS GOALS AND ACTIONS

Target	Project Consistency
	<p>October 2020 due to construction of the Metro Regional Connector project and will be replaced with a new underground platform, to remain named as the “Little Tokyo/Arts District Station”. The new underground Little Tokyo/Arts District Station will be located at Central Avenue & First Street, and is scheduled to open in 2023 as part of the Regional Connector Project, which will run through Downtown Los Angeles and will connect the current Metro Rail A, E, and L Lines. A bus bridge [L Line (Gold) bus shuttle) has replaced Metro L Line service between Union Station and the Pico/Aliso Station until the underground station replacement is completed. The closest new transit station will be located at 1st Street & Central Avenue, approximately 0.40 miles north of the Project Site, which will also serve the Metro L Line.</p>
<p>Reduce VMT per capita by at least 13 percent by 2025; 39 percent by 2035; and 45 percent by 2050.</p>	<p>Would Not Conflict. While this action applies to the City and not to individual projects, as indicated in the VMT analysis in Section IV.J, <i>Transportation</i>, of this Draft EIR, the results of the analysis show that the Project is projected to generate less than significant impacts on VMT.</p>
<p>Chapter 7: 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>Would Not Conflict. While this action applies to the City and not to individual projects, the Project would designate a minimum of eight percent of on-site parking for carpool and/or alternative-fueled vehicles (approximately 198 spaces). In addition, the Project design provides for the installation of the conduit and panel capacity to accommodate future electric vehicle charging stations into a minimum of 30 percent of the parking spaces (approximately 743 spaces), with 10 percent of the Code-required spaces further improved with electric vehicle charging stations (approximately 248 spaces).</p>
<p>Chapter 9: Waste & Resource Recovery</p>	
<p>Increase landfill diversion rate to 90 percent by 2025; 95 percent by 2035 and 100 percent by 2050.</p>	<p>Would Not Conflict. While this action applies to the City and not to individual projects, the Project would be served by a solid waste collection and recycling service that may include mixed waste processing, and that yields waste diversion results comparable to source separation and consistent with and would not conflict with Citywide recycling targets.</p>

TABLE IV-E-10
COMPARISON OF PROJECT CHARACTERISTICS TO APPLICABLE CITY OF LOS ANGELES
GREEN NEW DEAL GHG EMISSIONS GOALS AND ACTIONS

Target	Project Consistency
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).	Would Not Conflict. While this action applies to the City and not to individual projects, the Project would be served by a solid waste collection and recycling service which would participate in City trash services, including separating trash from recycling through the use of blue and green recycling bins provided by the Bureau of Sanitation.
Eliminate organic waste going to landfill by 2028.	Would Not Conflict. The Project consists residential, office, restaurant/retail, and hotel land uses, which would participate in City trash services, including the participation in the organic waste recycling program once the Citywide residential program is implemented.
Chapter 11: Urban Ecosystems & Resilience	
Reduce urban/rural temperature differential by at least 1.7 degrees by 2025; and 3 degrees by 2035.	Would Not Conflict. While this action applies to the City in general, and not specifically to individual private development, the residential uses would generate a requirement of 382 trees to be provided within the Project Site. In addition, the existing 20 street trees to be removed during Project construction would be required to be replaced at a 2:1 ratio for a total of 40 replacement trees. Overall, the total tree planting for the Project would require 422 new trees which the Project would provide. Approximately 114,112 sf of retail and restaurants uses as well as 90,113 sf of publicly accessible open space, consisting of plazas and paseos passing between Central Avenue and Alameda Street and a Central Courtyard in the South Site that would provide linkages to the surrounding pedestrian walkways. There would be a total of 12 individually curated publicly accessible open space areas (see Chapter II, <i>Project Description</i> , of this Draft EIR for additional details). The Project would be consistent with and would not conflict with the City's goal to reduce the heat island effect, with measures such landscaped open space and the addition of canopy trees.
Ensure proportion of Angelenos living within 1/2 mile of a park or open space is at least 65 percent by 2025; 75 percent by 2035; and 100 percent by 2050.	Would Not Conflict. The Project's design includes 90,113 sf of publicly accessible open space, consisting of plazas and paseos passing between Central Avenue and Alameda Street and a Central Courtyard in the South Site that would provide linkages to the surrounding pedestrian walkways. There would be a total of 12 individually curated publicly accessible open space areas (see Chapter II, <i>Project Description</i> , of this Draft EIR for additional details). As a result, the Project is consistent with and would not conflict with this City goal.

SOURCE: City of Los Angeles, L.A.'s Green New Deal (Sustainable City pLAn 2019), 2019; ESA, 2022.

Although the City's Green New Deal is not an adopted plan or directly applicable to private development projects, the Project would not conflict with these aspirations as it is an infill development consisting of educational and recreational uses on a Project Site in proximity to transit. In addition, the Project would comply with Title 24 Standards and would implement measures to reduce overall energy usage compared to baseline conditions. The Project would comply with the City of Los Angeles Solid Waste Management Policy Plan, and the Exclusive Franchise System Ordinance (Ordinance No. 182,986) in furtherance of the aspirations included in the Green New Deal with regard to energy-efficient buildings and waste and landfills. The Project would also provide bicycle parking and facilities, which include lockers, fix-it/repair stations and showers, in furtherance of reducing VMT and decreasing GHG. Therefore, as the Project's GHG emissions would be generated in connection with a development located and designed to be consistent with the applicable City plan goals and actions for reducing GHG emissions, the Project would not conflict with these City plans adopted for the purpose of reducing GHG emissions, and the Project's GHG emissions would result in less-than-significant impacts.

(d) Los Angeles Green Building Code

The Project would comply with the Los Angeles Green Building Code by complying with the California 2022 Title 24 Building Energy Efficiency Standards, as codified with amendments by the City. The Project would also meet the mandatory measures of the CALGreen Code as amended in the LAMC by the City by incorporating strategies, such as the use of tree landscaping to provide passive solar shading and use cool roof/pavement coatings to reduce the urban heat island effect. The Project would also comply with applicable solar installation regulatory requirements. The Project would focus on occupant wellness by incorporating healthy materials with low-volatile organic compounds (VOCs), abundant daylight, and accessible thermal comfort control to prevent sick building syndrome. Other building features would include such items as installation of energy-efficient heating, ventilation, and air conditioning (HVAC) systems that utilize ozone-friendly refrigerants; and dedicated on-site recycling areas. The Project would also include the installation of low flow/efficient water fixtures, rainwater capture systems, drought-tolerant/California native plant species selection, landscape contouring to minimize precipitation runoff, irrigation system efficiency, smart irrigation systems (e.g., weather-based controls), and water-saving pool equipment. Therefore, the Project would not conflict with the Los Angeles Green Building Code.

(e) Conclusion

In conclusion, the Project's consistency with applicable GHG reduction plans and policies demonstrate that the Project does not conflict with regulations and policies and complies with or exceeds the regulations and reduction actions/strategies outlined in the Climate Change Scoping Plan, 2025–2045 RTP/SCS, the City's Green New Deal, and the Los Angeles Green Building Code. The Project would also have a less-than-significant impact with respect to the urban heat island effect. **Therefore, the Project would not conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing emissions of GHGs, and Project-specific impacts with regard to GHG emissions would be less than significant.**

(2) Impact Analysis

As described above, compliance with a GHG emissions reduction plan renders a project's impact less than significant. Quantitative calculations are provided below in support of the consistency analysis, which describes the Project's compliance with, or exceedance of performance-based standards included in the regulations and policies outlined in the applicable portions of the Climate Change Scoping Plan, the 2020–2045 RTP/SCS, the City's Green New Deal, and the Los Angeles Green Building Code. The Project would generate an incremental contribution to and a cumulative increase in GHG emissions. A specific discussion regarding potential GHG emissions associated with the construction and operational phases of the Project is provided below.

(a) Construction Emissions

The emissions of GHGs associated with construction of the Project were calculated for each year of construction activity using CalEEMod and EMFAC. Construction is expected to be completed in approximately five years where construction of the Project is anticipated to begin in 2025 pending Project consideration and approval, and is estimated to be completed in the third quarter of 2029 with construction occurring for approximately four years and eight months. Results of the GHG emissions calculations are presented in **Table IV.E-10, Estimated Construction Greenhouse Gas Emissions**.

**TABLE IV.E-10
ESTIMATED CONSTRUCTION GHG EMISSIONS**

Emission Source	CO ₂ e (Metric Tons) ^{a,b}
Construction Year 1	8,400
Construction Year 2	5,077
Construction Year 3	14,302
Construction Year 4	14,076
Construction Year 5	6,219
Total	48,074
Amortized Over 30 Years	1,602

^a Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in Appendix B of this Draft EIR.

^b CO₂e emissions are calculated using the global warming potential values from the IPCC AR4.

SOURCE: ESA, 2023.

It is estimated that the Project would export approximately 651,000 cubic yards (CY) of grading (cut), including 105,000 CY within the North Site, 534,000 CY in the South Site and 12,000 CY in the West Site, all of which would be exported from the Project Site. Emissions from haul trucks and continuous pour concrete trucks were estimated outside of CalEEMod using EMFAC emission factors for heavy-duty trucks. It should be noted that the GHG emissions shown in Table IV.E-10 are based on construction equipment

operating continuously throughout the workday. In reality, construction equipment tends to operate periodically or cyclically throughout the workday. Therefore, the GHG emissions shown reflect a conservative estimate.

As presented in Table IV.E-10, construction of the Project is estimated to generate a total of 48,074 MTCO₂e. Although GHGs are generated during construction and are accordingly considered one-time emissions, it is important to include them when assessing all of the long-term GHG emissions associated with a project. As recommended by SCAQMD, the total GHG construction emissions were amortized over the 30-year lifetime of the Project (i.e., total construction GHG emissions were divided by 30 to determine an annual construction emissions estimate that can be added to the Project's operational emissions) in order to determine the Project's annual GHG emissions inventory.¹³⁷ This results in annual Project construction emissions of 1,602 MTCO₂e. A complete listing of the construction equipment by on-site and off-site activities, duration, and emissions estimation model input assumptions used in this analysis is included within the emissions calculation worksheets that are provided in Appendix B of this Draft EIR.

(b) Operational Emissions

The Project's annual GHG emissions included emissions from operations and construction calculated by CalEEMod and EMFAC for mobile source emissions. As previously described, construction GHG emissions for the entire construction period were amortized over 30 years. The Project must comply with the portions of the Los Angeles Green Building Code and State's CALGreen Code / California Title 24 Building Energy Efficiency requirements applicable to the Project, and meeting these requirements are assumed in the quantitative analysis below. As explained above, the Project's mobile source emission calculations associated with the Project are calculated using the VMT from the TA prepared for the Project.¹³⁸

The Project would implement Project Design Feature GHG-PDF-1 (Green Building Features), which include the Project's buildings achieving the USGBC LEED Gold Certification or equivalent to improve building energy efficiency above regulatory requirements. LEED Gold Certification requires documenting achievement of the rating system requirements and the required credits after the completion of construction. Projects may achieve credits in a variety of categories, including categories that are relevant to energy such as Location and Transportation, Water Efficiency, and Energy and Atmosphere. It not yet known which specific credits in each of the LEED categories the Project would achieve; therefore, it is not possible at this time to accurately quantify specific amounts of energy and VMT reduction and associated GHG emissions reductions the Project would achieve from LEED Gold Certification above regulatory

¹³⁷ SCAQMD Governing Board Agenda Item 31, December 5, 2008.

¹³⁸ Gibson Transportation Consulting, Inc., Transportation Assessment for the Fourth & Central Project, June 2022. Provided in Appendix J of this Draft EIR.

requirements. Therefore, LEED Gold Certification is not quantitatively accounted for in this analysis.

Maximum unmitigated, annual net GHG emissions resulting from on road mobile sources, area sources (landscape maintenance equipment), energy (i.e., electricity), water conveyance and wastewater treatment, and solid waste were calculated for the Project buildout year (2030). The Project's total and net GHG emissions from operation of the Project are shown in **Table IV.E-11, *Estimated Operational Greenhouse Gas Emissions – Project***, below.

**TABLE IV.E-11
ESTIMATED OPERATIONAL GREENHOUSE GAS EMISSIONS – PROJECT**

Emissions Sources	CO ₂ e at Buildout Year (2030) (Metric Tons per Year) ^a	
	Project with implementation of GHG reduction characteristics, features, and measures	Project without implementation of GHG reduction characteristics, features, and measures
Project Operational		
Mobile Sources	11,244	17,034
Area	107	107
Electricity	4,606	6,772
Water and Wastewater Treatment	318	396
Solid Waste	406	406
Emergency Generator	290	290
Cooling Tower	25	39
Construction (Amortized)	1,602	1,602
Project Subtotal	18,598	26,646
Existing Site (refer to Table IV.E-7)	20,386	20,386
Net Total (Project minus Existing)	(1,788)	6,260

^a Totals may not add up exactly due to rounding in the modeling calculations.

SOURCE: ESA, 2023.

(i) Area Source Emissions

Area source emissions were calculated using the CalEEMod emissions inventory model, which includes landscaping equipment. As shown in Table IV.E-11 on page IV.E-100, the Project with and without implementation of GHG reduction characteristics, features, and measures would both result in 107 MTCO₂e per year from area sources. Please refer to Appendix B of this Draft EIR for the supporting calculations.

(ii) Electricity Generation Emissions

With regard to energy usage, the consumption of fossil fuels to generate electricity and to provide heating and hot water generates criteria pollutants. Future fuel consumption rates are estimated based on specific square footage of the residential, office, restaurant/retail, and hotel land uses, as well as predicted water supply needs of the Project.

Energy usage (off-site electricity generation) for the Project is calculated within CalEEMod using data from the CEC's (2020, 2021) 2018–2030 Uncalibrated Commercial Sector Forecast (Commercial Forecast) and the 2019 Residential Appliance Saturation Survey (RASS). While the Project would be required to comply with the 2022 Title 24 Building Energy Efficiency Standards (which are effective for building permit applications that are applied for on or after January 1, 2023), CalEEMod includes building energy efficiency factors for the 2019 Title 24 Building Energy Efficiency Standards but does not include correction factors for the 2022 standards. Thus, the analysis of building energy-related criteria pollutant and GHG emissions does not reflect additional building energy reductions and associated criteria pollutant and GHG emissions reductions from 2022 Title 24 compliance.

With regard to energy demand, GHG emissions result from the consumption of fossil fuels to generate electricity and to provide heating and hot water. Under the RPS, LADWP is required to reduce the CO₂ intensity factor of their electricity. The CI of LADWP electricity would be anticipated to be 554.49 lbs CO₂/MWh, which is consistent with CARB's 2017 Climate Change Scoping Plan Statewide BAU forecast for the AB 32 target year of 2020 and continued reductions through SB 32 through 2030, but does not account for newer RPS requirements such as SB 100 that was signed into law after the 2017 Scoping Plan.¹³⁹ As discussed above, the future year CO₂ intensity factor of 375.93 lbs CO₂/MWh for year 2030 was scaled proportionately based on the future year renewable energy targets of 60 percent by 2030 consistent with SB 100 (refer to Appendix B for additional

¹³⁹ The CARB's 2022 Climate Change Scoping Plan also demonstrates GHG reductions compared to a Project without implementation of GHG reduction characteristics, features, and measures. In the 2022 Scoping Plan's reference scenario, SB 100 is considered in the Statewide BAU forecast as well as continued reductions through SB 32 through 2030. However, as shown in the 2022 Climate Change Scoping Plan's Appendix J, there is uncertainty of how quickly and the exact timing on when the RPS will be achieved as required by SB 100 by 2030, therefore the 2017 Scoping Plan reference scenario assumptions were used.

details).¹⁴⁰ For the Project, these features account for approximately a 32.0 percent reduction in electricity emissions and an 8.1 percent reduction in total GHG emissions in the first operational year of 2030 (detailed emissions calculations are provided in Appendix B of this Draft EIR). As shown in Table IV.E-11 on page IV.E-100, Project GHG emissions from electricity usage would result in a total of 4,606 MTCO_{2e} per year with implementation of GHG reduction characteristics, features, and measures, which accounts for and a reduction of 2,166 MTCO_{2e} per year in comparison the Project without implementation of GHG reduction characteristics, features, and measures (6,772 MTCO_{2e} per year).

(iii) *Mobile Source Emissions*

Emissions from motor vehicles are dependent on model years and the specific types of vehicles that are used to travel to and from the Project Site. The emissions were calculated using a representative motor vehicle fleet mix for the Basin for the opening year of the Project. As discussed above, all vehicle types would visit the Project Site; therefore, the use of the motor vehicle fleet mix for the Air Basin is an appropriate modeling parameter. Mobile source emissions are estimated for calendar years 2030 corresponding to full Project buildout.

The estimated vehicle trips and maximum daily VMT were provided for the Project uses in the Project's Transportation Assessment where the VMT analysis used the City's VMT analysis procedures and Transportation Assessment Guidelines.¹⁴¹ The EMFAC model was run in the emissions mode (also referred to as the "Burden" mode) and used to generate Air District-specific vehicle fleet emission factors in units of grams or metric tons per mile. These emission factors were then applied to the daily VMT to obtain daily mobile source emissions. The Project's annual VMT is based on the sum of the estimated daily VMT for the Project as described in the Project's Transportation Assessment (365 days out of a year).¹⁴²

As discussed above, based on the Project's land use characteristics, VMT reductions are expected due to the Project's infill nature, location, and design. These characteristics account for a 34.0 percent reduction in VMT and a 21.7 percent reduction in total GHG emissions in the first operational year of 2030. As shown in Table IV.E-11 on page IV.E-85, Project GHG emissions from mobile sources would result in a total of 11,244 MTCO_{2e} per year with implementation of GHG reduction characteristics, features, and measures,

¹⁴⁰ Los Angeles Department of Water and Power, 2021 Power Content Label, https://www.ladwp.com/ladwp/faces/ladwp/aboutus/a-power/a-powercontentlabel;jsessionid=XL84kDyS74VcfJ9q2vZfVJHGgcpHjIHGI1C4Qy8sW6QTxrCTc46n!-1508772228?_afLoop=234955472766070&_afWindowMode=0&_afWindowId=null#%40%3F_afWindowId%3Dnull%26_afLoop%3D234955472766070%26_afWindowMode%3D0%26_adf.ctrl-state%3Dkw55f6s9t_4.

¹⁴¹ Gibson Transportation Consulting, Inc., Transportation Assessment for the Fourth & Central Project, June 2022. Provided in Appendix J of the Project's Draft EIR.

¹⁴² Gibson Transportation Consulting, Inc., Transportation Assessment for the Fourth & Central Project, June 2022. Provided in Appendix J of the Project's Draft EIR.

which accounts for and a reduction of 5,790 MTCO_{2e} per year in comparison the Project without implementation of GHG reduction characteristics, features, and measures (17,034 MTCO_{2e} per year).

(iv) *Emergency Generator Emissions*

Emissions associated with periodic maintenance and testing of the emergency generators is estimated separately outside of the CalEEMod software. The emergency generator emissions are calculated based on compliance with the Tier 4 emissions standards and compliance with SCAQMD Rule 1470 (Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines) mandated emission limits and operating hour constraints. As discussed previously, Rule 1470 applies to stationary compression ignition engines greater than 50 brake horsepower and sets limits on emissions and operating hours. In general, new stationary emergency standby diesel-fueled engines greater than 50 brake horsepower are not permitted to operate more than 50 hours per year for maintenance and testing. As shown in Table IV.E-11 on page IV.E-85, the Project with and without implementation of GHG reduction characteristics, features, and measures would both result in 290 MTCO_{2e} per year from emergency generators. Please refer to Appendix B of this Draft EIR for the supporting calculations that reflect the emission reduction measures.

(v) *Solid Waste Generation Emissions*

Emissions related to solid waste were calculated using the CalEEMod emissions inventory model, which multiplies an estimate of the waste generated by applicable emissions factors provided in Section 2.4 of USEPA's AP-42, Compilation of Air Pollutant Emission Factors. CalEEMod solid waste generation rates for each applicable land use were selected for this analysis. Refer to Section IV.L.3, *Utilities and Service Systems – Solid Waste*, of this Draft EIR for estimated solid waste disposal and diversion rates from the Project. As shown in Table IV.E-11 on page IV.E-85, the Project with and without implementation of GHG reduction characteristics, features, and measures would both result in 406 MTCO_{2e} per year from solid waste, which accounts for a 76-percent recycling/diversion rate.¹⁴³ Please refer to Appendix B of this Draft EIR for the supporting calculations that reflect the emission reduction measures.

(vi) *Water Usage and Wastewater Generation Emissions*

The emissions of GHGs associated with water demand and wastewater generation from the Project are calculated using CalEEMod. The emissions are based on the size of the Project land uses, the water demand factors, the electrical intensity factors for water supply, treatment, and distribution for wastewater treatment, the GHG emission factors for the electricity utility provider, and the GWP values for the GHGs emitted. Refer to Section IV.L.1, *Utilities and Service Systems – Water Supply*, and Section IV.L.2, *Utilities and Service Systems – Wastewater*, of this Draft EIR for the estimated water usage rate

¹⁴³ City of Los Angeles, Bureau of Sanitation, Zero Waste Progress Report, 2013.

for the Project. As discussed in the Project's Water Supply Section IV.L.1, *Utilities and Service Systems – Water Supply*, the Project would further reduce water consumption through the additional water conservation features (Project Design Feature PDF-WS-1) of the Project¹⁴⁴ and potential strategies that include the installation of water efficient fixtures that exceed applicable standards and water efficient landscaping (refer to Section IV.L.1, *Utilities and Service Systems – Water Supply*, of this Draft EIR). In addition, the lower CI of electricity described above also accounts for reduction in emissions associated with Project water supply, treatment, and distribution and for wastewater treatment. The additional water conservation features from PDF-WS-1 and the lower CI of electricity would account for an approximately 19.7-percent reduction in water conveyance and wastewater treatment source emissions, and an approximately 0.3-percent reduction in total GHG emissions in the first operational year of 2030. As shown in Table IV.E-11 on page IV.E-85, Project GHG emissions associated with water demand and wastewater generation would result in a total of 318 MTCO_{2e} per year with implementation of GHG reduction characteristics, features, and measures, which accounts for and a reduction of 78 MTCO_{2e} per year in comparison the Project without implementation of GHG reduction characteristics, features, and measures (396 MTCO_{2e} per year).

(vii) *Cooling Tower Emissions*

Stationary sources would also include an on-site cooling tower to assist in dissipating heat from commercial processes, such as commercial heating, ventilation and air conditioning (HVAC) systems, of the project. The cooling towers would result in emissions due to the required energy to supply, distribute, and treat the water used and emissions were estimated based on the energy demand factors for water used in the CalEEMod software. As discussed in the Project's Water Supply Assessment (WSA), the cooling tower water usage would be further reduced by reducing the number of cycles of concentration for the cooling towers (refer to Table II of the Project's WSA, provided in Appendix O-2 of this Draft EIR).¹⁴⁵ In addition, the lower CI of electricity described above also accounts for reduction in emissions associated with Project water supply, treatment, and distribution of the water used in the cooling tower. The additional water conservation and the lower CI of electricity would account for an approximately 35.3-percent reduction in cooling tower associated GHG emissions, and an approximately 0.1-percent reduction in total GHG emissions in the first operational year of 2030. As shown in Table IV.E-11 on page IV.E-85, Project GHG emissions associated with cooling towers would result in a total of 25 MTCO_{2e} per year with implementation of GHG reduction characteristics, features, and measures, which accounts for and a reduction of 14 MTCO_{2e} per year in comparison the Project without implementation of GHG reduction characteristics, features, and measures (39 MTCO_{2e} per year).

¹⁴⁴ Los Angeles Department of Water and Power (LADWP), *Water Supply Assessment – Fourth and Central Project (WSA)*, August 2022.

¹⁴⁵ Los Angeles Department of Water and Power (LADWP), *Water Supply Assessment (WSA)*, August 2022.

(viii) Combined Construction and Operational Impacts

As shown in Table IV.E-11, when taking into consideration implementation of relevant project design features, as well as the requirements set forth in the City of Los Angeles Green Building Code, and full implementation of current State mandates, the Project's GHG emissions for the Project in 2030 would equal 1,602 MTCO₂e per year (amortized over 30 years) during construction and 16,996 MTCO₂e per year during operation of the Project with a combined total of 18,598 MTCO₂e per year.

When considering only the Project's emissions, Table IV.E-11 shows that the Project's operational emissions of 18,598 MTCO₂e would be generated primarily by mobile sources and secondarily by energy (electricity) and in 2030 would be approximately 30 percent below the emissions that would be generated by the Project without implementation of GHG reduction characteristics, features, and measures (i.e., based on the quantitative reduction). The Project without implementation of GHG reduction characteristics, features, and measures does not account for land use characteristics of the Project that reduce VMT given its mix of complementary residential, hotel, office, retail and restaurant uses, and location at an urban infill location with nearby access to public transportation. Thus, this analysis quantitatively demonstrates the efficiency of the Project GHG reduction measures as set forth in the applicable GHG reduction plans and policies and that the Project would result in a GHG-efficient development.

As discussed previously, State, regional, and local GHG reduction plans and policies, such as the Climate Change Scoping Plan, the 2020–2045 RTP/SCS, and the City of Los Angeles Green New Deal, would be applicable to the Project. These plans and policies are intended to reduce GHG emissions in accordance with the goals of AB 32. While other methodologies for calculating Project GHG reduction efficiencies exist, this analysis compares the Project's GHG emissions to the emissions that would be generated by the Project without implementation of GHG reduction characteristics, features, and measures and is presented here for informational purposes only, in order to evaluate the efficacy of the GHG reduction characteristics, features, and measures that would be implemented as part of the Project as required by these GHG reduction plans and policies and. 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. 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 Project. Furthermore, this analysis is consistent with the most current regulatory policies and GHG quantification methods; however, the scientific, regulatory environment regarding GHG reduction and CEQA approaches for GHG analysis are constantly evolving and would continue to do so into the future.

The quantification of GHG emissions for the Project without implementation of GHG reduction characteristics, features, and measures 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 Climate Change Scoping Plan (for complete list of assumptions refer to Appendix B of this Draft EIR).

It is important to note that the total net Project emissions in Table IV.E-1 do not account for declining GHG emissions in future years as emissions reduction plans, policies, and regulations at the State, local, and regional level (including the RTP/SCS and Climate Change Scoping Plan, discussed above) are achieved and as the State’s Cap-and-Trade program continues to be implemented. Emissions related to electricity would decline as utility providers, including LADWP, met their RPS obligations to provide renewable electricity sources to meet the future RPS obligations 100 percent by December 31, 2045. Emissions from mobile sources would also decline in future years as older vehicles are replaced with newer vehicles, resulting in a greater percentage of the vehicle fleet meeting more stringent combustion emissions standards, such as the model year 2017–2025 Pavley Phase II standards and Revised 2023 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions Standards.

As stated above, because 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 whether the Project conflicts 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 primary basis for determining the significance of the Project’s GHG-related impacts on the environment. Accordingly, as shown below in Threshold (b), since the Project would not conflict with applicable plans, regulations or goals, the Project would not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.

(c) *Post Buildout Emissions*

Executive Orders S-3-05 and B-30-25 establish a goal to reduce GHG emissions to 80 percent below 1990 levels by 2050. This goal has not been codified by the Legislature and CARB has not adopted a strategy or regulations to meet the 2050 goal. However, studies have shown that, in order to meet the 2050 goal, aggressive technologies in the transportation and energy sectors, including electrification and the decarbonization of fuel, would be required. In its original 2008 Scoping Plan, CARB acknowledged that the “measures needed to meet the 2050 goal are too far in the future to define in detail.”¹⁴⁶ In the 2014 Scoping Plan, CARB generally described the type of activities required to achieve the 2050 target: “energy demand reduction through efficiency and activity changes; large-scale electrification of on-road vehicles, buildings, and industrial machinery; decarbonizing electricity and fuel supplies; and rapid market penetration of efficiency and clean energy technologies that requires significant efforts to deploy and scale markets for the cleanest technologies immediately.”¹⁴⁷ The 2017 Scoping Plan recognizes that additional work is needed to achieve the more stringent 2050 target: “While the Scoping Plan charts the path to achieving the 2030 GHG emissions reduction target, we also need momentum to propel us to the 2050 Statewide GHG target (80

¹⁴⁶ California Air Resources Board, Climate Change Scoping Plan, December 2008, page 117.

¹⁴⁷ California Air Resources Board, First Update to the AB 32 Scoping Plan, May 2014, page 32.

percent below 1990 levels). In developing this Scoping Plan, we considered what policies are needed to meet our mid-term and long-term goals.”¹⁴⁸

Similarly, as the 2022 Scoping Plan is designed to chart a path to achieving an even stricter GHG goal of carbon neutrality by year 2045, the 2022 Scoping Plan recognizes additional work will be required to fully design and implement any policies and actions identified in this plan to achieve the more stringent 2045 goal.¹⁴⁹ For example, the 2022 Scoping plan acknowledges that ZEV technology for off-road equipment and for propulsion, such as commercial aircraft or ocean-going vessels, but that this type of research, technological development and policy would be necessary to meet the 2045 target.¹⁵⁰

- **Energy Sector:** Technological improvements such as increased decarbonization of the electricity sector and additions to California’s renewable resource portfolio would favorably influence the Project’s emissions level.¹⁵¹
- **Transportation Sector:** Anticipated deployment of improved vehicle efficiency, zero emission technologies, lower carbon fuels, and improvement of existing transportation systems all would serve to reduce the Project’s emissions level.¹⁵²

The *Air Quality and Greenhouse Gas Technical Documentation* appendix for the Project, which is provided in Appendix B of this Draft EIR, was prepared after thorough investigation of feasible methodologies to determine the potential GHG impacts associated with the Project. Due to the technological shifts required and the unknown parameters of the regulatory framework in 2045, quantitatively analyzing the Project’s impacts relative to the 2045 goal is speculative for purposes of CEQA. Despite the thorough investigation performed, due to the uncertainty regarding specific State and local actions that would be implemented to achieve the state’s carbon neutrality goal in 2045, calculating Project emissions levels for 2045 would be highly speculative. Nonetheless, Statewide efforts are underway to facilitate the State’s achievement of those goals, and it is reasonable to expect the Project’s emissions level to decline as the regulatory initiatives identified by CARB in the 2022 Scoping Plan are implemented, and other technological innovations occur.

In addition, the Project is the type of land use development that is encouraged by the 2020–2045 RTP/SCS to reduce VMT and expand multi-modal transportation options in order for the region to achieve the GHG reductions from the land use and transportation sectors required by SB 375, which, in turn, advances the State’s long-term climate

¹⁴⁸ California Air Resources Board, 2017 Scoping Plan, November 2017.

¹⁴⁹ California Air Resources Board, 2022 Scoping Plan For Achieving Carbon Neutrality, November 16, 2022.

¹⁵⁰ California Air Resources Board, 2022 Scoping Plan For Achieving Carbon Neutrality, November 16, 2022, pages 195-206.

¹⁵¹ California Air Resources Board, 2022 Scoping Plan For Achieving Carbon Neutrality, November 16, 2022, pages 184-194.

¹⁵² California Air Resources Board, First Update to the AB 32 Scoping Plan, May 2014, pages 55–56.

policies. The Project Site is located in a HQTAs. HQTAs are corridor-focused areas within 0.5 mile of an existing or planned fixed guideway transit stop or a bus transit corridor where buses pick up passengers at a frequency of every 15 minutes (or less) during peak commuting hours. The Project Site is also located within a Transit Priority Area (TPA). TPAs are areas that are within a 0.5 of a major transit stop that is existing or planned. The 2020–2045 RTP/SCS encourages development within TPAs and HQTAs since such areas have convenient access to public transportation options that reduced VMT from automobiles. The Project Site is provided bus service by the Los Angeles County Metro and LADOT where the closest bus stop to the Project Site is located at Alameda Street and 4th Street, approximately 100 feet northeast of the Project Site, which is served by the LADOT DASH Route A, which is a downtown route that connects the Arts District and Little Tokyo with the rest of Downtown Los Angeles. Other bus lines in the vicinity of the Project Site include Metro bus lines 16, 18, 53, 50, 62, 72, and 760 and LADOT DASH Route D. The Metro Little Tokyo/Arts District station, which is expected to complete construction and open in 2023, will be location on 1st Street between Alameda and Central Avenue, approximately 0.3 miles north of the Project’s North Site. In addition, the Project would include approximately 742 bicycle parking spaces, as required by LAMC Section 12.21 A.16(a)(2). Approximately 146 of the total spaces will be short-term spaces, with the remaining 596 spaces designated as long-term bicycle parking spaces. The Project’s bicycle parking spaces and facilities will be provided at various locations throughout the Project Site, which include lockers, fix-it/repair stations and showers.

These Project characteristics are related to key GHG reduction strategies in the 2020–2045 RTP/SCS, which include locating uses in areas accessible to transit and providing biking infrastructure to improve active transportation options and transit access. Additional details regarding the Project’s furtherance of key GHG reduction strategies in the 2020–2045 RTP/SCS are discussed in Threshold (b). By furthering implementation of SB 375, the Project supports regional land use and transportation GHG reductions, and would not conflict with State climate targets for 2030 and beyond.

Stated differently, the Project’s emissions total at buildout represents the maximum emissions inventory for the Project as California’s emissions sources are being regulated (and foreseeably expected to continue to be regulated in the future) in furtherance of the State’s environmental policy objectives. As such, given the reasonably anticipated decline in Project emissions once fully constructed and operational, the Project would not conflict with the 2030 and 2050 Statewide targets and Executive Orders S-3-05 and B-30-15.

(d) Conclusion

As set forth above, the Project would generate increased GHG emissions over existing conditions. However, even a very large individual project would not generate enough GHG emissions on its own to significantly influence global climate change. Moreover, as discussed under Threshold (b) below, the Project would not conflict with the Climate Change Scoping Plan, the 2020–2045 RTP/SCS, the City’s Green New Deal, and the Los Angeles Green Building Code. The Project’s consistency with these applicable regulatory plans and policies to reduce GHG emissions, would reduce the Project’s GHG emissions

by 28 percent (or 40 percent on a net GHG emissions basis) compared to the Project without implementation of GHG reduction characteristics, features, and measures. In summary, the plan consistency analysis provided below under Threshold (b) demonstrates that the Project's design features would not conflict with regulations and policies and would comply with or exceed the regulations and reduction actions/strategies outlined in the Climate Change Scoping Plan, the 2020–2045 RTP/SCS, City's Green New Deal, and the Los Angeles Green Building Code. **The Project's evaluation of consistency with the above plans is the primary basis for determining the significance of the Project's GHG-related impacts on the environment. Accordingly, as shown below in Threshold (b), since the Project would not conflict with applicable plans, regulations or goals, the Project would not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment. Thus, Project impacts related to GHG emissions would be less than significant.**

(3) Mitigation Measures

Impacts related to the Project's generation of GHG emissions were determined to be less than significant. Therefore, no mitigation measures are required.

(4) Level of Significance After Mitigation

Impacts related to the Project's generation of 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.

(5) Mitigation Measures

Impacts regarding conflicts with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs were determined to be less than significant. Therefore, no mitigation measures are required.

(6) Level of Significance After Mitigation

Impacts regarding conflicts with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs 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.

e) Cumulative Impacts

Analysis of GHG emissions is cumulative in nature because impacts are caused by cumulative global emissions and additionally, climate change impacts related to GHG emissions do not necessarily occur in the same area as the project is located. Given that the Project would generate GHG emissions that would not conflict with applicable reduction plans and policies and given that GHG emission impacts are cumulative in nature, the Project's incremental contribution to cumulatively significant GHG emissions would be less than significant.

(1) Impact Analysis

Although the Project is expected to emit GHGs, the emission of GHGs by a single project into the atmosphere is not itself necessarily an adverse environmental effect. Rather, it is the increased accumulation of GHG from more than one project and many sources in the atmosphere that may result in global climate change. The resultant consequences of that climate change can cause adverse environmental effects. A project's GHG emissions typically would be very small in comparison to State or global GHG emissions and, consequently, they would, in isolation, have no significant direct impact on climate change. The State has mandated a goal of 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 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),¹⁵³ 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 would not conflict with the applicable regulatory plans and policies to reduce GHG emissions: Climate Change Scoping Plan, the 2020–2045 RTP/SCS, City's Green New Deal, and the Los Angeles Green Building Code.

Subsection IV.E.3.(d)(1)(a)(ii), *CARB's Climate Change Scoping Plan*, illustrates 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 implementation of GHG reduction characteristics, features, and measures 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 Climate Change Scoping Plan for the implementation of AB 32.

¹⁵³ 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 is consistent with the approach outlined in CARB's Climate Change 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 CARB's Climate Change Scoping Plan, the Project would use "green building" features as a framework for achieving GHG emissions reductions as new buildings would be designed to comply with the City's requirements and the CALGreen Code.

As part of the 2020–2045 RTP/SCS, a reduction in VMT within the region is a key component to achieving the 2035 GHG emission reduction targets established by CARB. As discussed previously, the Project Site's land use characteristics demonstrate that the Project's VMT would be reduced compared to a standard non-infill project and based on its location efficiency.

As discussed in Section IV.A, *Air Quality*, and in Section IV.F, *Land Use and Planning*, of this Draft EIR, the Project would not conflict with applicable land use policies of the City of Los Angeles and SCAG pertaining to air quality, including reducing GHG emissions.

The Project also would comply with the City's Green New Deal, as discussed under Threshold (b) in Subsection IV.E.3.d(1)(a)(iii), *City's Green New Deal*, 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. Furthermore, the related projects would also be anticipated to comply with many of these same emissions reduction goals and objectives (e.g., Los Angeles Green Building Code).

As discussed above, the Project would not conflict 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 would backstop the GHG reduction plans and policies applicable to the Project in that the Cap-and-Trade Program would be responsible for relatively more emissions reductions if California's direct regulatory measures reduce GHG emissions less than expected. The Cap-and-Trade Program would 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 would 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 would require 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 electric cars on the road, improving energy efficiency, and curbing emissions from key industries.

Thus, based on the above, the Project would not generate GHG emissions, either directly or indirectly, that would have a significant impact on the environment and would not conflict with an applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of GHGs. In the absence of adopted standards and established significance thresholds, and given this consistency, the Project's impacts would not be cumulatively considerable, and, therefore, the Project's cumulative GHG emissions impacts would be less than significant.

(2) Mitigation Measures

Cumulative impacts regarding GHG emissions were determined to be less than significant. Therefore, no mitigation measures are required.

(3) Level of Significance After Mitigation

Cumulative impacts regarding 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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