

# IV. Environmental Impact Analysis

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## C. Energy

### 1. Introduction

This section analyzes impacts on energy resources due to construction and operation of the Project. Section 15126.2 (b) of the California Environmental Quality Act (CEQA) Guidelines states that a project's energy use shall be analyzed to determine the potential energy impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy, as well as being compliant with building codes and renewable energy features. Appendix G of the State CEQA Guidelines checklist, Section VI, *Energy*, includes questions to assist lead agencies when assessing a project's potential energy impacts. Additionally, State CEQA Guidelines Appendix F provides guidance on information to use when evaluating a project's energy use.

In accordance with the applicable Appendix G sections and utilizing guidance from Appendix F of the State CEQA Guidelines, this Draft EIR includes relevant information and analyses that address the energy implications of the Project, focusing on the following three energy resources: electricity, natural gas, and transportation-related energy (petroleum-based fuels). Detailed energy calculations can be found in Appendix D of this Draft EIR. Information found herein, as well as other aspects of the Project's energy implications, are discussed in greater detail elsewhere in this Draft EIR, including in Chapter 2, *Project Description*, and Sections IV.E, *Greenhouse Gas Emissions*, and Section IV.L.1, *Utilities and Service Systems - Water Supply*.

### 2. Environmental Setting

#### a) Regulatory Framework

There are several plans, regulations, and programs that include policies, requirements, and guidelines regarding energy at the federal, state, regional, and City of Los Angeles levels. As described below these plans, guidelines, and laws include the following:

- Energy Independence and Security Act of 2007
- Corporate Average Fuel Economy (CAFE) Standards
- Federal Energy Policy and Conservation Act
- Senate Bill 1389
- Renewables Portfolio Standards

- California Building Standards
  - California Building Energy Efficiency Standards (Title 24, Part 6)
  - California Green Building Standards (Title 24, Part 11)
- California Assembly Bill 1493
- California Air Resources Board
  - Scoping Plan
  - Advanced Clean Car Program
  - Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling
  - In-Use Off-Road Diesel-Fueled Fleets Regulation
- Senate Bill 375
- Regional Transportation Plan/Sustainable Communities Strategy
- Green New Deal
- Green Building Code
- City of Los Angeles All-Electric Building Ordinance
- City of Los Angeles Mobility Plan 2035

## (1) Federal

### (a) *Energy Independence and Security Act of 2007*

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

- Increasing the supply of alternative fuel sources by setting mandatory Renewable Fuel Standards (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 United States Environmental Protection Agency (USEPA) and National Highway Traffic Safety Administration (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.”<sup>1</sup>

(b) *Corporate Average Fuel Economy Standards*

Established by the U.S. Congress in 1975, the Corporate Average Fuel Economy (CAFE) Standards (49 CFR Parts 531 and 533) reduce energy consumption by increasing the fuel economy of cars and light trucks. The NHTSA and USEPA jointly administer the CAFE standards. The U.S. Congress has specified that CAFE standards must be set at the “maximum feasible level” with consideration given for: (1) technological feasibility; (2) economic practicality; (3) effect of other standards on fuel economy; and (4) need for the nation to conserve energy. When these standards are raised, automakers respond by creating a more fuel-efficient fleet. In 2012, the NHTSA established final passenger car and light truck CAFE standards for model years 2017 through 2021, which the agency projects will require in model year 2021, on average, a combined fleet-wide fuel economy of 40.3 to 41.0 miles per gallons (mpg). Fuel efficiency standards for medium- and heavy-duty trucks have been jointly developed by USEPA and NHTSA. The Phase 1 heavy-duty truck standards apply to combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles for model years 2014 through 2018, and result in a reduction in fuel consumption from six to 23 percent over the 2010 baseline, depending on the vehicle type.<sup>2</sup> USEPA and NHTSA have also adopted the Phase 2 heavy-duty truck standards, which cover model years 2021 through 2027 and require the phase-in of a five to 25 percent reduction in fuel consumption over the 2017 baseline depending on the compliance year and vehicle type.<sup>3</sup>

In March 2020, the USEPA and NHTSA issued the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule that would maintain the CAFE standards applicable in model year 2020 for model years 2021 through 2026. The estimated CAFE standards for model year 2020 are 43.7 miles per gallon (mpg) for passenger cars and 31.3 mpg for light trucks, projecting an overall industry average of 37 mpg, as compared to 46.7 mpg under the standards issued in 2012. However, consistent with President Biden’s executive order on Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis, USEPA and NHTSA evaluated whether and how to replace the SAFE Rule.<sup>4</sup> In February 2022, the USEPA issued the Revised 2023 and Later Model Year Light-Duty Vehicle

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- 1 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.
  - 2 United States Environmental Protection Agency, Fact Sheet: EPA and NHTSA Adopt First-Ever Program to Reduce Greenhouse Gas Emissions and Improve Fuel Efficiency of Medium- and Heavy-Duty Vehicles, 2011.
  - 3 United States Environmental Protection Agency, Federal Register/Vol. 81, No. 206/Tuesday, Greenhouse Gas Emissions and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles—Phase 2, 2018.
  - 4 *Union of Concerned Scientists, et al., v. National Highway Traffic Safety Administration, etc.*, USCA Case #19-1230 and consolidated cases (United States District Court for the District Court of Columbia, 2021).

Greenhouse Gas Emissions Standards.<sup>5</sup> 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.<sup>6</sup>

(c) *Federal Energy Policy and Conservation Act*

The Energy Policy and Conservation Act of 1975 (EPCA) is a United States Act of Congress that responded to the 1973 oil crisis by creating a comprehensive approach to federal energy policy. The primary goals of EPCA are to increase energy production and supply, reduce energy demand, provide energy efficiency, and give the executive branch additional powers to respond to disruptions in energy supply. Most notably, EPCA established the Strategic Petroleum Reserve, the Energy Conservation Program for Consumer Products, and Corporate Average Fuel Economy regulations.

(2) State

(a) *Senate Bill 1389*

Senate Bill (SB) 1389 (Public Resources Code Sections 25300–25323; SB 1389) requires the California Energy Commission (CEC) to prepare a biennial integrated energy policy report that assesses major energy trends and issues facing the state’s electricity, natural gas, and transportation fuel sectors and provides policy recommendations to conserve resources; protect the environment; ensure reliable, secure, and diverse energy supplies; enhance the state’s economy; and protect public health and safety (Public Resources Code Section 25301[a]). The 2020 Integrated Energy Policy Report, the latest published report from CEC, provides the results of the CEC’s assessments related to energy sector trends, building decarbonization and energy efficiency, zero-emission vehicles (ZEV), energy equity, climate change adaptation, electricity reliability in Southern California, natural gas assessment, and electricity, natural gas, and transportation energy demand forecasts.

(b) *Renewables Portfolio Standards*

First established in 2002 under SB 1078, California’s Renewables Portfolio Standards (RPS) requires retail sellers of electric services to increase procurement from eligible renewable energy resources to 33 percent by 2020 and 50 percent by 2030.<sup>7</sup> SB 350, signed October 7, 2015, is the Clean Energy and Pollution Reduction Act of 2015. The

<sup>5</sup> 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>.

<sup>6</sup> 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?Dockkey=P1013NR8.pdf>.

<sup>7</sup> California Public Utilities Commission, *California Renewables Portfolio Standard (RPS)*, 2018.

objectives of SB 350 are: (1) to increase the procurement of electricity from renewable sources from 33 percent to 50 percent; and (2) to double the energy savings in electricity and natural gas final end uses of retail customers through energy efficiency and conservation. On September 10, 2018, former Governor Jerry Brown signed SB 100, which further increased California's RPS and requires retail sellers and local publicly owned electric utilities to procure eligible renewable electricity for 44 percent of retail sales by December 31, 2024, 52 percent by December 31, 2027, and 60 percent by December 31, 2030, and that the California Air Resources Board (CARB) should plan for 100 percent eligible renewable energy resources and zero-carbon resources by December 31, 2045.

The California Public Utilities Commission (CPUC) and the CEC jointly implement the RPS program. The CPUC's responsibilities include: (1) determining annual procurement targets and enforcing compliance; (2) reviewing and approving each investor-owned utility's renewable energy procurement plan; (3) reviewing contracts for RPS-eligible energy; and (4) establishing the standard terms and conditions used in contracts for eligible renewable energy.<sup>8</sup>

In March 2021, the CEC, CPUC, and CARB issued an SB 100 Joint Agency Report that assesses barriers and opportunities to implementing the 100 percent clean electricity policy.<sup>9</sup> The report's initial findings suggest that the goals of SB 100 are achievable, though opportunities remain to reduce overall system costs; however, the report also notes that the findings are intended to inform state planning and are not intended as a comprehensive nor prescriptive roadmap to 2045 and future work is needed on critical topics such as system reliability and land use and further address energy equity and workforce needs.<sup>10</sup> Refer to Section IV.E, *Greenhouse Gas Emissions*, of this Draft EIR for additional details regarding this regulation.

(c) *California Building Standards*

(i) *California Building Energy Efficiency Standards (Title 24, Part 6)*

The California Building Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations, Title 24, Part 6) were adopted to ensure that building construction and system design and installation achieve energy efficiency and preserve outdoor and indoor environmental quality. The current California Building Energy Efficiency Standards (Title 24 standards) are the 2019 Title 24 standards, which

<sup>8</sup> California Public Utilities Commission, RPS Program Overview, 2018.

<sup>9</sup> California Energy Commission, California Public Utilities Commission, California Air Resources Board, 2021 SB 100 Joint Agency Report Achieving 100 Percent Clean Electricity in California: An Initial Assessment, CEC-200-2021-001, March 2021.

<sup>10</sup> California Energy Commission, California Public Utilities Commission, California Air Resources Board, 2021 SB 100 Joint Agency Report Achieving 100 Percent Clean Electricity in California: An Initial Assessment, CEC-200-2021-001, March 2021.

became effective on January 1, 2020.<sup>11</sup> The 2019 Title 24 standards continue to improve upon the 2016 Title 24 standards for new construction of, and additions and alterations to, residential and nonresidential buildings which include efficiency improvements to the residential standards for attics, walls, water heating, and lighting, and efficiency improvements to the non-residential standards include alignment with the American Society of Heating and Air-Conditioning Engineers (ASHRAE) 90.1-2017 national standards.<sup>12</sup>

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.<sup>13</sup>

(ii) *California Green Building Standards (Title 24, Part 11)*

The California Green Building Standards Code (California Code of Regulations, Title 24, Part 11) are commonly referred to as the CALGreen Code. The 2019 CALGreen Code includes mandatory measures for non-residential development related to site development; energy efficiency; water efficiency and conservation; material conservation and resource efficiency; and environmental quality.<sup>14</sup> The 2019 CALGreen Code improves upon the 2016 CALGreen Code by updating standards for bicycle parking, electric vehicle charging, and water efficiency and conservation. The 2019 CALGreen Code went into effect on January 1, 2020. Refer to Section IV.E, *Greenhouse Gas Emissions*, of this Draft EIR for additional details regarding these standards.

(d) *California Assembly Bill 1493 (AB 1493, Pavley)*

In response to the transportation sector accounting for more than half of California's carbon dioxide (CO<sub>2</sub>) emissions, Assembly Bill (AB) 1493 (commonly referred to as CARB's Pavley regulations), enacted on July 22, 2002, requires CARB to set GHG emission standards for new passenger vehicles, light duty trucks, and other vehicles manufactured in and after 2009 whose primary use is non-commercial personal transportation. Phase I of the legislation established standards for model years 2009–

<sup>11</sup> California Energy Commission, 2019 Building Energy Efficiency Standards, 2019.

<sup>12</sup> California Energy Commission, 2019 Building Energy Efficiency Standards for Residential and Nonresidential Buildings, 2018.

<sup>13</sup> California Energy Commission, 2022 Building Energy Efficiency Standards.

<sup>14</sup> California Building Standards Commission, Guide to the 2016 California Green Building Standards Code Nonresidential, 2018.

2016 and Phase II established standards for model years 2017-2025.<sup>15, 16</sup> In September 2019, the USEPA published the SAFE Vehicles Rule in the federal register (Federal Register, Vol. 84, No. 188, Friday, September 27, 2019, Rules and Regulations, 51310-51363) that maintains the vehicle mpg standards applicable in model year 2020 for model years 2021 through 2026. In November 2019, California and 23 other states and environmental groups filed a petition in the U.S. District Court in Washington, DC for the USEPA to reconsider the published rule. The Court has not yet ruled on these petitions. However, consistent with President Biden’s executive order on Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis, in February 2022, the USEPA issued the Revised 2023 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions Standards.<sup>17</sup> 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.<sup>18</sup>

As discussed in subsection (1) Federal, above, in March 2020 the U.S. DOT and the U.S. EPA issued the SAFE Vehicles Rule, which amends existing CAFE standards and tailpipe carbon dioxide emissions standards for passenger cars and light trucks and establishes new standards covering model years 2021 through 2026. Refer to Section IV.E, *Greenhouse Gas Emissions*, of this Draft EIR for additional details regarding this regulation.

(e) *California Air Resources Board*

(i) *Scoping Plan*

The Scoping Plan is a greenhouse gas emission (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

<sup>15</sup> California Air Resources Board, Clean Car Standards—Pavley, Assembly Bill 1493.

<sup>16</sup> United States 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, 2012.

<sup>17</sup> 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>.

<sup>18</sup> 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?Dockkey=P1013NR8.pdf>.

returning to 1990 levels of GHG emissions by 2020, a reduction of approximately 15 percent below business as usual activities.<sup>19</sup> 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).<sup>20</sup> The 2017 Scoping Plan Update,<sup>21</sup> 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.<sup>22</sup> 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.

**Table IV.C-1** below shows the State's estimated GHG emissions and reductions that are included in the 2022 Scoping Plan Update.

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- <sup>19</sup> CARB. 2008. Climate Change Scoping Plan.  
[ww2.arb.ca.gov/sites/default/files/classic/cc/scopingplan/document/adopted\\_scoping\\_plan.pdf](http://ww2.arb.ca.gov/sites/default/files/classic/cc/scopingplan/document/adopted_scoping_plan.pdf).
- <sup>20</sup> CARB. 2014. First Update to the Climate Change Scoping Plan.  
[ww2.arb.ca.gov/sites/default/files/classic/cc/scopingplan/2013\\_update/first\\_update\\_climate\\_change\\_scoping\\_plan.pdf](http://ww2.arb.ca.gov/sites/default/files/classic/cc/scopingplan/2013_update/first_update_climate_change_scoping_plan.pdf).
- <sup>21</sup> CARB. 2017. California's 2017 Climate Change Scoping Plan.  
[ww2.arb.ca.gov/sites/default/files/classic/cc/scopingplan/scoping\\_plan\\_2017.pdf](http://ww2.arb.ca.gov/sites/default/files/classic/cc/scopingplan/scoping_plan_2017.pdf).
- <sup>22</sup> CARB, California's 2017 Climate Change Scoping Plan, 2017,  
[ww2.arb.ca.gov/sites/default/files/classic/cc/scopingplan/scoping\\_plan\\_2017.pdf](http://ww2.arb.ca.gov/sites/default/files/classic/cc/scopingplan/scoping_plan_2017.pdf).



**TABLE IV.C-1  
ESTIMATED STATEWIDE GREENHOUSE GAS EMISSIONS REDUCTIONS IN THE  
2022 SCOPING PLAN**

Emissions Scenario	GHG Emissions (MMTCO <sub>2e</sub> )
<b>2019</b>	
2019 State GHG Emissions	404
<b>2030</b>	
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%) <sup>a</sup>
<b>2045</b>	
2045 BAU Forecast	266
2045 GHG Emissions without Carbon Removal and Capture	72
2045 GHG Emissions with Carbon Removal and Capture	(3)

MMTCO<sub>2e</sub> = million metric tons of carbon dioxide equivalents; parenthetical numbers represent negative values.

<sup>a</sup>  $312 - 260 = 52$ .  $52 / 312 = 16.7\%$

SOURCE: CARB, Final 2022 Climate Change Scoping Plan, 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.C-2** below provides a summary of major climate legislation and executive orders issued since the adoption of the 2017 Scoping Plan.

**TABLE IV.C-2**  
**MAJOR CLIMATE LEGISLATION AND EXECUTIVE ORDERS ENACTED SINCE THE**  
**2017 SCOPING PLAN**

Bill/Executive Order	Summary
<p><b>Assembly Bill 1279 (AB 1279)</b>  <b>(Muratsuchi, Chapter 337, Statutes of 2022)</b>  <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 the Scoping Plan updates identify and recommend measures to achieve carbon neutrality, and to identify and implement policies and strategies that enable CO<sub>2</sub> removal solutions and carbon capture, utilization, and storage (CCUS) technologies.</p> <p>This bill is reflected directly in the 2022 Scoping Plan Update.</p>
<p><b>Senate Bill 905 (SB 905)</b>  <b>(Caballero, Chapter 359, Statutes of 2022)</b>  <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><b>Senate Bill 846 (SB 846)</b>  <b>(Dodd, Chapter 239, Statutes of 2022)</b>  <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><b>Senate Bill 1020 (SB 1020)</b>  <b>(Laird, Chapter 361, Statutes of 2022)</b>  <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.C-2**  
**MAJOR CLIMATE LEGISLATION AND EXECUTIVE ORDERS ENACTED SINCE THE**  
**2017 SCOPING PLAN**

Bill/Executive Order	Summary
<p><b>Senate Bill 1137 (SB 1137)</b>  <b>(Gonzales, Chapter 365, Statutes of 2022)</b>  <i>Oil &amp; Gas Operations: 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><b>Senate Bill 1075 (SB 1075)</b>  <b>(Skinner, Chapter 363, Statutes of 2022)</b>  <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.</p> <p>This bill would inform the production of hydrogen at the scale called for in the 2022 Scoping Plan Update.</p>
<p><b>Assembly Bill 1757 (AB 1757)</b>  <b>(Garcia, Chapter 341, Statutes of 2022)</b>  <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.</p> <p>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 CO<sub>2</sub>, 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.</p> <p>This 2022 Scoping Plan Update describes the next steps and implications of this legislation for the natural and working lands sector.</p>

**TABLE IV.C-2**  
**MAJOR CLIMATE LEGISLATION AND EXECUTIVE ORDERS ENACTED SINCE THE**  
**2017 SCOPING PLAN**

Bill/Executive Order	Summary
<p><b>Senate Bill 1206 (SB 1206)</b>  <b>(Skinner, Chapter 884, Statutes of 2022)</b>  <i>Hydrofluorocarbon gases: sale or distribution</i></p>	<p>SB 1206 mandates a stepped sales prohibition on newly produced high-global warming potential (GWP) 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 &lt; 10, and no-GWP technologies in sectors that currently rely on higher-GWP HFCs.</p>
<p><b>Senate Bill 27 (SB 27)</b>  <b>(Skinner, Chapter 237, Statutes of 2021)</b>  <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 CO<sub>2</sub> 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.</p> <p>CNRA also must track carbon removal and GHG emission reduction benefits derived from projects funded through the registry.</p> <p>This bill is reflected directly in the 2022 Scoping Plan Update as CO<sub>2</sub> removal targets for 2030 and 2045 in support of carbon neutrality.</p>
<p><b>Senate Bill 596 (SB 596)</b>  <b>(Becker, Chapter 246, Statutes of 2021)</b>  <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"> <li>• Define a metric for GHG intensity and establish a baseline from which to measure GHG intensity reductions.</li> <li>• Evaluate the feasibility of the 2035 interim target (40 percent reduction in GHG intensity) by July 1, 2028.</li> <li>• Coordinate and consult with other state agencies.</li> <li>• Prioritize actions that leverage state and federal incentives.</li> <li>• Evaluate measures to support market demand and financial incentives to encourage the production and use of cement with low GHG intensity.</li> </ul> <p>The 2022 Scoping Plan Update modeling is designed to achieve these outcomes.</p>
<p><b>Executive Order N-82-20</b></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.C-2  
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"> <li>• Establish a baseline assessment of California’s biodiversity that builds upon existing data and can be updated over time.</li> <li>• Analyze and project the impact of climate change and other stressors in California’s biodiversity.</li> <li>• Inventory current biodiversity efforts across all sectors and highlight opportunities for additional action to preserve and enhance biodiversity.</li> </ul> <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 the 2022 Scoping Plan Update.</p>
<b>Executive Order N-79-20</b>	<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"> <li>• 100 percent of in-state sales of new passenger cars and trucks will be zero-emission by 2035.</li> <li>• 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.</li> <li>• 100 percent of off-road vehicles and equipment will be zero-emission by 2035 where feasible.</li> </ul> <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.C-2  
MAJOR CLIMATE LEGISLATION AND EXECUTIVE ORDERS ENACTED SINCE THE  
2017 SCOPING PLAN**

Bill/Executive Order	Summary
<p><b>Executive Order N-19-19</b></p>	<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"> <li>• 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.</li> <li>• 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.</li> <li>• Aligns with the fiduciary responsibilities of the California Public Employees’ Retirement System, California State Teachers’ Retirement System, and the University of California Retirement Program.</li> </ul> <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"> <li>• Developing new criteria for clean vehicle incentive programs to encourage manufacturers to produce clean, affordable cars.</li> <li>• Proposing new strategies to increase demand in the primary and secondary markets for ZEVs.</li> <li>• Considering strengthening existing regulations or adopting new ones to achieve the necessary GHG reductions from within the transportation sector.</li> </ul> <p>The 2022 Scoping Plan Update modeling reflects efforts to accelerate ZEV deployment.</p>
<p><b>Senate Bill 576 (SB 576) (Umberg, Chapter 374, Statutes of 2019)</b></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.C-2  
MAJOR CLIMATE LEGISLATION AND EXECUTIVE ORDERS ENACTED SINCE THE  
2017 SCOPING PLAN**

Bill/Executive Order	Summary
<p><b>Assembly Bill 65 (AB 65) (Petrie- Norris, Chapter 347, Statutes of 2019)</b></p> <p><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 adaptation 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><b>Executive Order B-55-18</b></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"> <li>• Seek to improve air quality and support the health and economic resiliency of urban and rural communities, particularly low-income and disadvantaged communities.</li> <li>• 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.</li> </ul> <p>This Executive Order also calls for CARB to:</p> <ul style="list-style-type: none"> <li>• Develop a framework for implementation and accounting that tracks progress toward this goal.</li> <li>• Ensure future Scoping Plans identify and recommend measures to achieve the carbon neutrality goal.</li> </ul> <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><b>Senate Bill 100 (SB 100) (De León, Chapter 312, Statutes of 2018)</b></p> <p><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><b>Assembly Bill 2127 (AB 2127) (Ting, Chapter 365, Statutes of 2018)</b></p> <p><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 the 2022 Scoping Plan Update.</p>

**TABLE IV.C-2  
MAJOR CLIMATE LEGISLATION AND EXECUTIVE ORDERS ENACTED SINCE THE  
2017 SCOPING PLAN**

Bill/Executive Order	Summary
<p><b>Senate Bill 30 (SB 30) (Lara, Chapter 614, Statutes of 2018)</b> <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><b>Assembly Bill 2061 (AB 2061) (Frazier, Chapter 580, Statutes of 2018)</b> <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 identified as 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.

#### *(ii) Advanced Clean Car Program*

The Advanced Clean Cars emissions-control program was approved by CARB in 2012 and is closely associated with the Pavley regulations.<sup>23</sup> The program requires a greater number of zero-emission vehicle models for years 2015 through 2025 to control smog, soot and GHG emissions. This program includes the Low-Emissions Vehicle (LEV) regulations to reduce criteria pollutants and GHG emissions from light- and medium-duty vehicles; and the Zero-Emissions Vehicle (ZEV) regulations to require manufacturers to produce an increasing number of pure ZEVs (meaning battery and fuel cell electric

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<sup>23</sup> California Air Resources Board, Clean Car Standards – Pavley, Assembly Bill 1493, <https://ww2.arb.ca.gov/californias-greenhouse-gas-vehicle-emission-standards-under-assembly-bill-1493-2002-pavley>, last reviewed January 11, 2017. Accessed January 31, 2022.

vehicles) with the provision to produce plug-in hybrid electric vehicles (PHEV) between 2018 and 2025. In particular, implementation of the ZEV and PHEV regulations reduce transportation fuel consumption by increasing the number of vehicles that are partially or fully electric-powered. Effective November 26, 2019, the federal SAFE Vehicles Rule Part One: One National Program withdraws 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. On March 9, 2022, the USEPA issued a notice of decision to reinstate California's Clean Air Act waiver for its Advanced Clean Car regulations.<sup>24</sup>

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

*(iii) Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling*

In 2004, CARB adopted an Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling in order to reduce public exposure to diesel particulate matter emissions (Title 13 California Code of Regulations [CCR] Section 2485). The measure applies to diesel-fueled commercial vehicles with gross vehicle weight ratings greater than 10,000 pounds that are licensed to operate on highways, regardless of where they are registered. This measure does not allow diesel-fueled commercial vehicles to idle for more than five minutes at any given location. While the goal of this measure is primarily to reduce public health impacts from diesel emissions, compliance with the regulation also results in energy savings in the form of reduced fuel consumption from unnecessary idling.

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<sup>24</sup> 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).

(iv) *In-Use Off-Road Diesel Fueled Fleets Regulation*

Because off-road vehicles that are used in construction and other related industries can last 30 years or longer, most of those that are in service today are still part of an older fleet that do not have emission controls. In 2007, CARB approved the “In-Use Off-Road Diesel Fueled Fleets Regulation” to reduce emissions from existing (in-use) off-road diesel vehicles that are used in construction and other industries. This regulation sets an anti-idling limit of five minutes for all off-road vehicles 25 horsepower and up. It also establishes emission rates targets for the off-road vehicles that decline over time to accelerate turnover to newer, cleaner engines and require exhaust retrofits to meet these targets. Revised in October 2016, the regulation enforced off-road restrictions on fleets adding vehicles with older tier engines and started enforcing beginning July 1, 2014. By each annual compliance deadline, a fleet must demonstrate that it has either met the fleet average target for that year or has completed the Best Available Control Technology requirements (BACT). Large fleets have compliance deadlines each year from 2014 through 2023, medium fleets each year from 2017 through 2023, and small fleets each year from 2019 through 2028. While the goal of this regulation is primarily to reduce public health impacts from diesel emissions, compliance with the regulation also results in energy savings in the form of reduced fuel consumption from the use of more fuel-efficient engines.

(f) *SB 375 (Sustainable Communities Strategy)*

In 2008, SB 375, the Sustainable Communities and Climate Protection Act, was adopted to connect the GHG emissions reductions targets established in the 2008 Scoping Plan for the transportation sector to local land use decisions that affect travel behavior. Its intent is to reduce GHG emissions from light-duty trucks and automobiles (excludes emissions associate with goods movement) by aligning regional long-range transportation plans, investments, and housing allocations to local land use planning to reduce vehicle miles traveled (VMT) and vehicle trips. Specifically, SB 375 required CARB to establish GHG emissions reduction targets for each of the 18 metropolitan planning organizations (MPOs). The Southern California Association of Governments (SCAG) is the MPO for the Southern California region, which includes counties of Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial.

(3) Regional

(a) *Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)*

SB 375 requires each MPO to prepare a Sustainable Communities Strategy (SCS) in their regional transportation plan. In general, the SCS outlines a development pattern for the region, which, when integrated with the transportation network and other transportation measures and policies, would reduce vehicle miles traveled from automobiles and light duty trucks and thereby reduce GHG emissions from these sources. For the SCAG region, the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy

(RTP/SCS), adopted on September 3, 2020, is the current RTP/SCS and is an update to the 2016-2040 RTP/SCS.

The 2020-2045 RTP/SCS focuses on the continued efforts of the previous RTP/SCS plans for an integrated approach in transportation and land use strategies in development of the SCAG region through horizon year 2045. The 2020-2045 RTP/SCS projects that the SCAG region will meet the GHG per capita reduction targets established for the SCAG region of eight percent by 2020 and 19 percent by 2035. Additionally, its implementation is projected to reduce VMT per capita for the year 2045 by 4.1 percent compared to baseline conditions for the year. Rooted in the 2008 and 2012 RTP/SCS plans, the 2020-2045 RTP/SCS includes “Core Vision” that centers on maintaining and better managing the transportation network for moving people and goods while expanding mobility choices by location housing, jobs, and transit closer together, and increasing investments in transit and complete streets. In addition, refer to Section IV.E, *Greenhouse Gas Emissions*, of this Draft EIR for additional details regarding these requirements.

#### (4) Local

##### (a) *Green New Deal*

In April 2019, Mayor Eric Garcetti released the Green New Deal, a program of actions designed to create sustainability-based performance targets through 2050 designed to advance economic, environmental, and equity objectives.<sup>25</sup> L.A.’s Green New Deal is the first four-year update to the City’s first Sustainable City pLAN that was released in 2015 and therefore replaces and supersedes the Sustainable City pLAN.<sup>26</sup> It augments, expands, and elaborates in more detail L.A.’s vision for a sustainable future and it tackles the climate emergency with accelerated targets and new aggressive goals.

Within the Green New Deal, climate mitigation is one of eight explicit benefits that help define its strategies and goals. These include reducing GHG emissions through near-term outcomes:

- Reduce potable water use per capita by 22.5 percent by 2025; 25 percent by 2035; and maintain or reduce 2035 per capita water use through 2050.
- Reduce building energy use per square feet for all building types 22 percent by 2025; 34 percent by 2035; and 44 percent by 2050 (from a baseline of 68 British thermal units (BTU)/sqft 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.

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<sup>25</sup> City of Los Angeles. LA’s Green New Deal, 2019.

<sup>26</sup> City of Los Angeles, Sustainable City pLAN, 2015.

- 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 pounds (lbs.) of waste generated per capita per day in 2011).
- Eliminate organic waste going to landfill by 2028.
- Reduce urban/rural temperature differential by at least 1.7 degrees by 2025; and three degrees 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) *Green Building Code*

Chapter IX of the Los Angeles Municipal Code (LAMC) is referred to as the “Los Angeles Green Building Code.” which incorporates by reference portions of the CALGreen 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. The Los Angeles Green Building Code includes mandatory measures for newly constructed nonresidential and high-rise residential buildings. The Los Angeles Green Building Code includes some requirements that are more stringent than State requirements such as increased requirements for electric vehicle charging spaces and water efficiency, which results in potentially greater energy demand reductions from improved transportation fuel efficiency and water efficiency. Refer to Section IV.E, *Greenhouse Gas Emissions*, of this Draft EIR for additional details.

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

The City has adopted Ordinance No. 187714 (All-Electric Building Ordinance), effective on April 1, 2023 and on June 1, 2023 for affordable housing projects, which does not allow combustion equipment (i.e., equipment or appliance used for space heating, water heating, cooking, clothes drying, lighting, or other type of equipment and/or appliance that uses fuel gas) for most new development. Under this All-Electric Building ordinance, 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: attached accessory dwelling units using existing gas piping systems in conjunction with the primary dwelling; commercial restaurants, commissaries, cafeterias, and community kitchens; gas-powered emergency life-safety systems including emergency backup; and laboratory, and research and development uses. This ordinance 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). In future years, the LADWP will be required to increase the amount of renewable energy in the power mix to comply with the State's RPS for 100 percent renewable energy by 2045.

(d) *City of Los Angeles 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.<sup>27</sup> The Mobility Plan incorporates "complete streets" principles and lays the policy foundation for how the City's residents interact with their streets. The Mobility Plan includes five main goals that define the City's high-level mobility priorities:

- (1) Safety First;
- (2) World Class Infrastructure;
- (3) Access for All Angelenos;
- (4) Collaboration, Communication, and Informed Choices; and
- (5) Clean Environments and Healthy Communities.

Each of the goals contains objectives and policies to support the achievement of those goals.

## **b) Existing Conditions**

### (1) Electricity

Electricity, a consumptive utility, is a man-made resource. The production of electricity requires the consumption or conversion of energy resources, including water, wind, oil, gas, coal, solar, geothermal, and nuclear resources, into energy. The delivery of electricity involves a number of system components, for distribution and use. The electricity generated is distributed through a network of transmission and distribution lines commonly called a power grid.

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<sup>27</sup> 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.

Energy capacity, or electrical power, is generally measured in watts (W) while energy use is measured in watt-hours (Wh). For example, if a light bulb has a capacity rating of 100 W, the energy required to keep the bulb on for one hour would be 100 Wh. If ten 100 W bulbs were on for one hour, the energy required would be 1,000 Wh or one kilowatt-hour (kWh). On a utility scale, a generator's capacity is typically rated in megawatts (MW), which is one million watts, while energy usage is measured in megawatt-hours (MWh) or gigawatt-hours (GWh), which is one billion watt-hours.

The Los Angeles Department of Water and Power (LADWP) provides electrical service throughout the City, including the Project Site, serving approximately four-million people within a service area of approximately 465 square miles. Electrical service provided by LADWP is divided into two planning districts: Valley and Metropolitan. The Valley Planning District includes the LADWP service area north of Mulholland Drive, and the Metropolitan Planning District includes the LADWP service area south of Mulholland Drive. The Project Site is located within LADWP's Metropolitan Planning District.

LADWP generates power from a variety of energy sources, including hydropower, coal, gas, nuclear sources, and renewable resources, such as wind, solar, and geothermal sources. According to LADWP's 2017 Power Strategic Long-Term Resource Plan, LADWP has a net dependable generation capacity greater than 7,531 MW.<sup>28</sup> On August 31, 2017, LADWP's power system experienced a record instantaneous peak demand of 6,502 MW.<sup>29</sup> Approximately 34 percent of LADWP's 2019 electricity purchases were from renewable sources, which is similar to the 32 percent Statewide percentage of electricity purchases from renewable sources.<sup>30</sup> The annual electricity sale to customers for the 2018-2019 fiscal year was approximately 22,663 million kWh.<sup>31</sup>

Energy demand from the existing Project Site uses is considered in this analysis to determine the Project's net (Project minus existing) energy consumption. Based on utility billing data, the Project Site's current annual electricity demand is approximately 6,542,773kWh. Detailed calculations are provided in Appendix D of this Draft EIR.

## (2) Natural Gas

Natural gas is a combustible mixture of simple hydrocarbon compounds (primarily methane) that is used as a fuel source. Natural gas consumed in California is obtained from naturally occurring reservoirs but relies upon out-of-state imports for nearly 90

<sup>28</sup> Los Angeles Department of Water and Power, 2017 Power Strategic Long-Term Resource Plan, December 2017, page 17.

<sup>29</sup> Los Angeles Department of Water and Power, Facts & Figures, [https://www.ladwp.com/ladwp/faces/ladwp/aboutus/a-power/a-p-factandfigures?\\_adf.ctrl-state=xk0dbq6vu\\_4&\\_afLoop=9598324856637&\\_afWindowMode=0&\\_afWindowId=null#%40%3F\\_afWindowId%3Dnull%26\\_afLoop%3D9598324856637%26\\_afWindowMode%3D0%26\\_adf.ctrl-state%3Dfcfwtty0v\\_25](https://www.ladwp.com/ladwp/faces/ladwp/aboutus/a-power/a-p-factandfigures?_adf.ctrl-state=xk0dbq6vu_4&_afLoop=9598324856637&_afWindowMode=0&_afWindowId=null#%40%3F_afWindowId%3Dnull%26_afLoop%3D9598324856637%26_afWindowMode%3D0%26_adf.ctrl-state%3Dfcfwtty0v_25), accessed December 5, 2020.

<sup>30</sup> Los Angeles Department of Water and Power, 2019 Power Content Label, October 2020.

<sup>31</sup> Los Angeles Department of Water and Power, 2017 Retail Electric Sales and Demand Forecast, page 14, September 2017.

percent of its natural gas supply.<sup>32</sup> A majority of natural gas consumed in California is for electricity generation, along with the industrial, residential, and commercial sections.<sup>33</sup> Among energy commodities consumed in California, natural gas accounts for one-third of them.<sup>34</sup> Natural gas is measured in terms of cubic feet (cf).

Natural gas is provided to a majority of the City, including portions of the Project vicinity, by SoCalGas. SoCalGas is the principal distributor of natural gas in Southern California, serving residential, commercial, and industrial markets. SoCalGas serves approximately 21.6 million customers in more than 500 communities encompassing approximately 20,000 square miles throughout Central and Southern California, from the City of Visalia to the Mexican border.<sup>35</sup>

SoCalGas receives gas supplies from several sedimentary basins in the western U.S. and Canada, including supply basins located in New Mexico (San Juan Basin), West Texas (Permian Basin), the Rocky Mountains, and Western Canada as well as local California supplies.<sup>36</sup> The traditional, southwestern U.S. sources of natural gas will continue to supply most of SoCalGas' natural gas demand. The Rocky Mountain supply is available but is used as an alternative supplementary supply source, and the use of Canadian sources provide only a small share of SoCalGas supplies due to the high cost of transport.<sup>37</sup> Gas supply available to SoCalGas from California sources averaged 97 million cubic feet (cf) per day in 2019 (the most recent year for which data are available).<sup>38</sup> Also, the annual natural gas sale to customers in 2019 was approximately 879,285 million cf.<sup>39</sup>

Energy demand from the existing Project Site uses is considered in this analysis to determine the Project's net (Project minus existing) energy consumption. Based on outputs from the California Emissions Estimator Model (CalEEMod) (version 2020.4.0),<sup>40</sup>

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<sup>32</sup> California Energy Commission, Supply and Demand of Natural Gas in California, <https://www.energy.ca.gov/data-reports/energy-almanac/californias-natural-gas-market/supply-and-demand-natural-gas-california>, accessed December 5, 2020.

<sup>33</sup> California Energy Commission, Supply and Demand of Natural Gas in California, <https://www.energy.ca.gov/data-reports/energy-almanac/californias-natural-gas-market/supply-and-demand-natural-gas-california>, accessed December 5, 2020.

<sup>34</sup> California Energy Commission, California Natural Gas Industry, [https://www.energy.ca.gov/almanac/naturalgas\\_data/](https://www.energy.ca.gov/almanac/naturalgas_data/), accessed December 5, 2020.

<sup>35</sup> SoCalGas, Company Profile, <http://www.socalgas.com/about-us/company-info.shtml>, accessed December 5, 2020.

<sup>36</sup> California Gas and Electric Utilities, 2020 California Gas Report, 2020, page 111.

<sup>37</sup> California Gas and Electric Utilities, 2020 California Gas Report, 2020, page 111.

<sup>38</sup> California Gas and Electric Utilities, 2020 California Gas Report, 2020, page 111.

<sup>39</sup> California Gas and Electric Utilities, 2020 California Gas Report, 2020, page 143. Daily natural gas usage in 2019 was 2,409 million cf, annual value derived by multiplying daily values by 365 days.

<sup>40</sup> California Air Pollution Control Officers Association, California Emissions Estimator Model, 2017, <http://caleemod.com/>, accessed December 5, 2020.



the Project Site's existing annual natural gas demand is approximately 7,336,832 cf. Detailed calculations are provided in Appendix D of this Draft EIR.

### (3) Transportation Energy

According to the CEC, transportation accounted for about 39 percent of California's total energy consumption in 2019 based on a carbon dioxide equivalent basis.<sup>41</sup> In 2019, California consumed 15.4 billion gallons of gasoline and 3.6 billion gallons of diesel fuel.<sup>42</sup> Petroleum-based fuels currently account for more than 90 percent of California's transportation fuel use.<sup>43</sup> However, the State is now working on developing flexible strategies to reduce petroleum use. Over the last decade, California has implemented several policies, rules, and regulations to improve vehicle efficiency, increase the development and use of alternative fuels, reduce air pollutants and GHGs from the transportation sector, and reduce VMT. Accordingly, gasoline consumption in California has declined. The CEC predicts that the demand for gasoline and transportation fossil fuels in general will continue to decline over the next 10 years primarily due to improvements in fuel efficiency and increased electrification.<sup>44</sup> According to fuel sales data from the CEC, fuel consumption in Los Angeles County was approximately 3.56 billion gallons of gasoline and 0.56 billion gallons of diesel fuel in 2019.<sup>45</sup>

The existing Project Site operations include daily trips to and from the site from employee vehicles and delivery trucks. Based on the existing VMT for employee vehicles and delivery trucks and emission factors taken from CARB's on-road vehicle emissions factor 2021 (EMFAC2021) model, the existing uses on the Project Site have an estimated annual demand of gasoline of approximately 80,824 gallons and an annual demand of diesel fuel of approximately 405,691 gallons within Los Angeles County. While a portion of the existing delivery trucks travel outside of Los Angeles County, only the estimated fuel demand within Los Angeles County is reported.

The existing site is equipped with two emergency generators and the estimated diesel fuel usage for maintenance and testing purposes is approximately 2,467 gallons per year. Detailed calculations are provided in Appendix D of this Draft EIR.

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<sup>41</sup> United States Energy Information Administration (USEIA), State Energy Data System, <https://www.eia.gov/state/seds/seds-data-complete.php?sid=CA#StatisticsIndicators>. Accessed October 2022.

<sup>42</sup> California Energy Commission, California Retail Fuel Outlet Annual Reporting (CEC-A15) Results, 2010-2020, <https://www.energy.ca.gov/media/3874>, accessed January 28, 2022. Diesel is adjusted to account for retail (49 percent) and non-retail (51 percent) diesel sales.

<sup>43</sup> California Energy Commission, 2016-2017 Investment Plan Update for the Alternative and Renewable Fuel and Vehicle Technology Program, May 2016.

<sup>44</sup> California Energy Commission, 2019 Integrated Energy Policy Report, page 228.

<sup>45</sup> California Energy Commission, California Retail Fuel Outlet Annual Reporting (CEC-A15) Results, 2010-2020, <https://www.energy.ca.gov/media/3874>, accessed January 28, 2022. Diesel is adjusted to account for retail (49 percent) and non-retail (51 percent) diesel sales. Year 2019 values are used as pre-COVID-19 pandemic values.

### 3. Project Impacts

#### a) Thresholds of Significance

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

***Threshold (a): Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation; or***

***Threshold (b): Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.***

With regard to Threshold (a), this analysis relates to Appendix F to the CEQA Guidelines, prepared in response to the requirement in PRC Section 21100(b)(3) that an EIR shall include a detailed statement setting forth “[m]itigation measures proposed to minimize significant effects of the environment, including, but not limited to, measures to reduce the wasteful, inefficient, and unnecessary consumption of energy.” In addition, with regard to potential energy impacts, the *L.A. CEQA Thresholds Guide*<sup>46</sup> states that a determination of significance shall consider the degree to which the project design and/or operations incorporate energy- conservation measures, particularly those that go beyond City requirements.

In accordance with Appendix F and the *L.A. CEQA Thresholds Guide*, the following factors were considered in determining whether the Project would have a significant impact with regard to Threshold (a):

1. The Project’s energy requirements and its energy use efficiencies by amount and fuel type for each stage of the project including construction, operation, maintenance, and/or removal. If appropriate, the energy intensiveness of materials may be discussed. The effects of the Project on local and regional energy supplies and on requirements for additional capacity.
2. The effects of the Project on local and regional energy supplies and on requirements for additional capacity.
3. The effects of the Project on peak and base period demands for electricity and other forms of energy.
4. The degree to which the Project complies with existing energy standards.
5. The effects of the Project on energy resources.
6. The Project’s projected transportation energy use requirements and its overall use of efficient transportation alternatives.

<sup>46</sup> L.A. CEQA Thresholds Guide factors related to infrastructure are evaluated in Section IV.L.4, *Utilities and Service Systems—Energy and Natural Gas*, of this Draft EIR.

7. The degree to which the Project design and/or operations incorporate energy-conservation measures, particularly those that go beyond City requirements.

With regard to Threshold (b), the Project was evaluated for consistency with adopted energy conservation plans and policies relevant to the Project. Such adopted energy conservation plans and policies include Title 24 energy efficiency requirements, CALGreen Code, and City building codes. Also, as discussed in Section IV.E, *Greenhouse Gas Emissions*, of this Draft EIR, the Project was also evaluated for consistency with the 2020– 2045 RTP/SCS, which includes goals to reduce VMT and corresponding decrease in fuel consumption.

## b) Methodology

CEQA Guidelines Appendix F provides topics that the lead agency may consider in the discussion of energy use in an EIR:

- The project's energy requirements and its energy use efficiencies by amount and fuel type for each stage of the project's life cycle including construction, operation, maintenance, and/or removal. If appropriate, the energy intensiveness of materials may be discussed.
- The effects of the project on local and regional energy supplies and on requirements for additional capacity.
- The effects of the project on peak and base period demands for electricity and other forms of energy.
- The degree to which the project complies with existing energy standards.
- The effects of the project on energy resources.
- The project's projected transportation energy use requirements and its overall use of efficient transportation activities.

### (1) Construction

Construction energy impacts were assessed based on the incremental change in energy compared to baseline conditions. Under CEQA, the baseline environmental setting for an EIR is generally established at or around the time that the Notice of Preparation (NOP) for the EIR is published. As discussed in Chapter II, *Project Description*, of this Draft EIR, existing on-site facilities are located on: the North Site, located at the northeast corner of 4th Street and Central Avenue; the South Site, located south of 4th Street between Central Avenue and Alameda Street; and the West Site, located at the northwestern intersection of Gladys Avenue and Central Avenue. Currently, the Project Site is occupied by cold storage facilities that include warehouse and wholesale commercial buildings and associated office space, truck loading docks, and surface parking. The existing buildings on the Project Site total 360,734 sf of floor area.

Project construction is estimated to start in 2025, but may commence at a later date. If, for various site planning, financial, or other reasons, 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. Construction energy consumption would result primarily from transportation fuels (e.g., diesel and gasoline) used for haul trucks, heavy-duty construction equipment, and construction workers traveling to and from the Project Site. Construction activities can vary substantially from day to day, depending on the specific type of construction activity and the number of workers and vendors traveling to the Project Site. This analysis considers these factors and provides the estimated maximum construction energy consumption for the purposes of evaluating the associated impacts on energy resources. This analysis is based on estimated maximum construction activities, meaning that for each phase of construction it was assumed that all of the vehicles and equipment that could be used for that phase are in simultaneous use for all day and every day of the phase.

(a) *Electricity*

Construction electricity was estimated for a temporary construction office, for construction equipment that would use electricity as an alternative to diesel fuel, and for water usage from dust control. The amount of construction office space for the Project was assumed to be up to 2,000 square feet and was modeled using CalEEMod (version 2020.4.0).<sup>47</sup> In addition, electricity from water conveyance for dust control was also calculated based on the estimated exposed area and water needs to cover the area during construction activity (e.g., demolition, site preparation, grading, and foundation activities). Default CalEEMod water electricity intensity factors were used to convert the volume of water needed to electricity demand from water conveyance.

(b) *Natural Gas*

Construction activities, including the construction of new buildings and facilities, typically do not involve the consumption of natural gas. Similar to typical construction projects for infill and urban mixed-use developments, this Project is not anticipating consumption of natural gas for construction. Accordingly, natural gas would not be consumed in large quantity during Project construction. Therefore, natural gas associated with construction activities was not calculated.<sup>48</sup>

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<sup>47</sup> California Air Pollution Control Officers Association, California Emissions Estimator Model, 2021, <http://caleemod.com/>, accessed April 2022.

<sup>48</sup> In general, natural gas would not be expected to be used and this energy analysis assumes heavy-duty construction equipment is diesel-fueled, as is typically the case. However, natural gas-fueled heavy-duty construction equipment could be used to replace some diesel-fueled heavy-duty construction equipment. If this does occur, diesel fuel demand would be slightly reduced and replaced by a small amount of temporary natural gas demand. This would not substantially affect the energy analysis or conclusions provided herein.

(c) *Transportation Fuels*

Fuel consumption from on-site heavy-duty construction equipment was calculated based on the equipment mix and usage factors provided in the CalEEMod construction output files included in Appendix B of this Draft EIR. The total horsepower was then multiplied by fuel usage estimates per horsepower-hour from CARB's off-road vehicle (OFFROAD) model. This methodology is consistent with methodology described in South Coast Air Quality Management District's (SCAQMD) 1993 CEQA Air Quality Handbook which states that, "the CEQA practitioner may use the 1993 Handbook methodology to calculate off-road mobile source emissions. Alternatively, to simplify calculating off-road mobile source emissions the CEQA practitioner may use the composite off-road emission factors from CARB's Off-Road Model".<sup>49</sup> Fuel consumption from construction on-road worker, vendor, and delivery/haul trucks was calculated using the trip rates and distances provided in the emissions modeling worksheets and CalEEMod construction output files. Total VMT for these on-road vehicles were then calculated for each type of construction-related trip and divided by the corresponding county-specific miles per gallon factor using CARB's EMFAC2021 model. EMFAC provides the total annual VMT and fuel consumed for each vehicle type. CalEEMod assumed trip lengths were used for worker commutes while vendor, management visits, concrete, and haul truck trips were taken from emissions modeling worksheets that used EMFAC2021 emission factors.

Consistent with CalEEMod, construction worker trips were assumed to include a mix of light duty gasoline automobiles and light duty gasoline trucks. Construction vendor trucks were assumed to be a mix of medium-heavy-duty and heavy-duty diesel trucks and concrete and haul trucks were assumed to be heavy-duty diesel trucks. Refer to Appendix D of this Draft EIR for detailed energy calculations.

The energy usage required for Project construction has been estimated based on the number and type of construction equipment that would be used during Project construction by assuming a conservative estimate of construction activities (i.e., maximum daily equipment usage levels). Energy for construction worker commuting trips has been estimated based on the predicted number of workers for the various phases of construction and the estimated VMT based on the conservative values in the CalEEMod and EMFAC2021 models. The assessment also includes a discussion of the Project's compliance with relevant energy-related regulatory requirements that would minimize the amount of energy usage during construction. These measures are also discussed in Chapter II, *Project Description*, Section IV.A, *Air Quality*, and Section IV.E, *Greenhouse Gas Emissions*, of this Draft EIR.

The construction equipment and haul trucks would likely be diesel-fueled, while the construction worker commute vehicles would primarily be gasoline-fueled. For the purposes of this assessment, it is conservatively assumed that all heavy-duty construction equipment and haul trucks would be diesel-fueled. The estimated fuel economy for heavy-duty construction equipment is based on fuel consumption factors from the CARB

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<sup>49</sup> SCAQMD, 1993 CEQA Air Quality Handbook, April 1993.

OFFROAD emissions model, which is a State-approved model for estimating emissions from off-road heavy-duty equipment. The estimated fuel economy for haul trucks and worker commute vehicles is based on fuel consumption factors from the CARB EMFAC emissions model, which is a State-approved model for estimating emissions on-road vehicles and trucks. Both OFFROAD and EMFAC are incorporated into CalEEMod. However, fuel consumption for worker, vendor, and concrete/haul trucks were calculated outside of CalEEMod using emission factors from EMFAC2021 to provide a more detailed and accurate account of truck fuel consumption.

## (2) Operation

Operation of the Project would require energy in the form of electricity for building space and water heating, cooling, cooking, lighting, water demand and wastewater treatment, consumer electronics, and other energy needs, and transportation fuels, primarily gasoline, for on-site landscaping equipment, emergency generators, and vehicles traveling to and from the Project Site. Operational energy impacts were assessed based on the increase in energy demand compared to existing conditions.

For existing uses, within the CalEEMod software, building electricity and natural gas usage rates were adjusted to account for prior Title 24 Building Energy Efficiency Standards (using the CalEEMod built-in “historic” rates function).<sup>50</sup> As stated above, the net change in operational energy demand is based on the difference between the existing Project Site energy demand and the energy demand of the Project at full buildout.

For consistency with the emissions modeling provided in Section IV.A, *Air Quality* and IV.E, *Greenhouse Gas Emissions*, the Project’s energy use was calculated assuming buildout in 2030.

### (a) Electricity

The Project’s estimated electricity demand was analyzed relative to LADWP’s existing and planned energy supplies in 2030 (i.e., the Project buildout year)<sup>51</sup> to determine if the utility would be able to meet the Project’s energy demands. Annual consumption of electricity (including electricity usage associated with the supply and conveyance of water) from Project operation was calculated using demand factors provided in CalEEMod based on the 2019 Title 24 standards, which went into effect on January 1, 2020. While the Project will 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

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<sup>50</sup> California Air Resources Board, CalEEMod User’s Guide, Appendix E, Section 5, September 2016. Factors for the prior Title 24 standard are extrapolated based on the technical source documentation.

<sup>51</sup> Los Angeles Department of Water and Power, 2017 Power Strategic Long-Term Resource Plan, December 2017, Appendix A, Table A-1. While the Project’s requested Development Agreement will likely be effective through 2040, comparison to the analyzed buildout year of 2025 provides a conservative analysis as supply projections for electricity increase in future years.

factors for the 2022 standards. Thus, the analysis of Project building energy demand does not reflect additional building energy reductions from 2022 Title 24 compliance.

Energy usage from water demand (e.g., electricity used to supply, convey, treat, and distribute) was estimated based on new buildings and facilities compared to the existing uses. The assessment also includes a discussion of the Project's compliance with relevant energy-related regulations and its land use transportation characteristics that would minimize the amount of energy usage during operations. These features and characteristics are also discussed in Chapter II, *Project Description*, Section IV.A, *Air Quality* and Section IV.E, *Greenhouse Gas Emissions*, of this Draft EIR.

(b) *Natural Gas*

The Project 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 from building energy demand. The Project would not result in installation of any new natural gas infrastructure.

(c) *Transportation Fuels*

Energy for transportation from Project residents, employees, and visitors traveling to and from the Project Site is estimated based on the predicted number of trips to and from the Project Site, based on VMT from the Transportation Assessment (TA) prepared by Gibson Transportation Consulting for the Project.<sup>52</sup> The existing site and Project annual VMT are based on the sum of the estimated daily VMT (365 days out of a year). Refer to VMT data in Appendix B and Appendix J of this Draft EIR and energy calculations in Appendix D of this Draft EIR.

## 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 energy demands associated with water supply, conveyance, distribution, and treatment.

Refer to Project Design Feature GHG-PDF-1 (Green Building Features) in Section IV.E, *Greenhouse Gas Emissions*, of this Draft EIR. Project Design Feature GHG-PDF-1 includes building energy efficiency features that reduce operational energy demands associated with Project building energy demand.

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<sup>52</sup> Gibson Transportation Consulting, Inc., Transportation Assessment for the Fourth & Central Project, June 2022. Provided in Appendix J of the Project's Draft EIR.

## d) Analysis of Project Impacts

***Threshold (a): Would the Project result in potentially significant environmental impacts due to wasteful, inefficient, and unnecessary consumption of energy resources, during project construction or operation?***

### (1) Impact Analysis

The Project would consume energy during construction and operational activities. Sources of energy for these activities would include electricity usage, natural gas consumption, and transportation fuels (diesel and gasoline).

*(a) The Project's Energy Requirements and its Energy Use Efficiencies by Amount and Fuel Type for Each Stage of the Project Including Construction, Operation, Maintenance, and/or Removal. If Appropriate, the Energy Intensiveness of Materials may be Discussed*

For the purposes of this analysis, Project maintenance would include activities, such as repair of structures, landscaping, and architectural coatings. Energy usage related to Project maintenance activities are assumed to be included as part of Project operations. Project removal activities would include demolition or abandonment of the site. However, it is not known when the Project would be removed. Therefore, analysis of energy usage related to Project removal activities would be speculative. For this reason, energy usage related to Project removal was not analyzed.

#### *(i) Construction*

During Project construction, energy would be consumed in the form of electricity on a limited basis for powering lights, electronic equipment, and for water conveyance for dust control. Project construction would also consume energy in the form of petroleum-based fuels associated with the use of off-road construction vehicles and equipment on the Project Site, construction workers traveling to and from the Project Site, and delivery and haul truck trips (e.g., hauling of demolition material to off-site reuse and disposal facilities).

**Table IV.C-3, *Summary of Energy Use During Project Construction***, provides a summary of the annual average electricity, gasoline fuel, and diesel fuel estimated to be consumed during Project construction. Each of these is discussed and analyzed in greater detail in the sections below. As specified earlier, these figures represent a highly conservative estimate in that it assumes the maximum volume of on-road and off-road construction equipment usage every day for each phase of construction.



**TABLE IV.C-3  
SUMMARY OF ENERGY USE DURING PROJECT CONSTRUCTION <sup>a</sup>**

<b>Energy Type</b>	<b>Total Quantity</b>	<b>Annual Average Quantity During Construction</b>
<b>Electricity</b>		
Construction Equipment and Office	5,064,690 kWh	1,086,141 kWh
Electricity from Water (Dust Control)	29,182 kWh	6,258 kWh
<b>Total Electricity</b>	<b>5,093,872 kWh</b>	<b>1,092,399 kWh</b>
<b>Gasoline</b>		
On-Road Construction Equipment	1,773,866 gallons	380,412 gallons
Off-Road Construction Equipment	0 gallons	0 gallons
<b>Total Gasoline</b>	<b>1,773,866 gallons</b>	<b>380,412 gallons</b>
<b>Diesel</b>		
On-Road Construction Equipment	1,500,811 gallons	321,854 gallons
Off-Road Construction Equipment	1,703,923 gallons	365,412 gallons
<b>Total Diesel</b>	<b>3,204,734gallons</b>	<b>687,267 gallons</b>

kWh = kilowatt-hours

<sup>a</sup> Detailed calculations are provided in Appendix D of this Draft EIR.

SOURCE: ESA, 2023.

#### (a) Electricity

During construction of the Project, electricity would be consumed, on a limited basis, to power lighting, electric equipment, and supply and convey water for dust control and for an on-site construction trailer. Electricity would be supplied to the Project Site by LADWP and would be obtained from the existing electrical lines that connect to the Project Site. This is consistent with suggested measures in the L.A. CEQA Thresholds Guide to use electricity from power poles rather than temporary gasoline or diesel-powered generators.

Electricity use from construction would be short-term, limited to working hours, used for necessary construction-related activities, and represent a small fraction of the Project's net annual operational electricity. When not in use, electric equipment would be powered off so as to avoid unnecessary energy consumption. In addition, although Title 24 requirements typically apply to energy usage for buildings, long-term construction lighting (longer than 120 days) providing illumination for the Project Site and staging areas would also comply with applicable Title 24 requirements, which include limits on the wattage allowed per specific area, which result in the conservation of energy.<sup>53</sup> Furthermore, the electricity used for off-road light construction equipment would have the co-benefit of

<sup>53</sup> California Building Energy Efficiency Standards, Title 24, Part 6, §110.9, §130.0, and §130.2.

reducing construction-related air pollutant and GHG emissions from more traditional construction-related energy in the form of diesel fuel. **Therefore, impacts from construction electrical demand would be less than significant and would not result in the wasteful, inefficient, and unnecessary consumption of energy.**

(b) Natural Gas

As stated above, construction activities, including the construction of new buildings and facilities, typically do not involve the consumption of natural gas. Similar to typical construction projects for infill and urban mixed-use developments, this Project is not anticipating consumption of natural gas for construction. Accordingly, natural gas would not be supplied to support Project construction activities; thus, there would be no expected demand generated by construction of the Project. **Therefore, the Project would result in no impacts from construction natural gas demand and would not result in the wasteful, inefficient, and unnecessary consumption of energy.**

(c) Transportation Energy

Table IV.C-3 reports the estimated amount of petroleum-based transportation energy that is expected to be consumed during Project construction. Energy calculations are provided in Appendix D of this Draft EIR. During Project construction, on- and off-road vehicles would consume an estimated annual average of approximately 380,412 gallons of gasoline and approximately 687,267 gallons of diesel. Project construction activities would last for approximately 57 months. For comparison purposes only, and not for the purpose of determining significance, the fuel usage during Project construction would represent approximately 0.011 percent of the 2019 annual on-road gasoline-related energy consumption of approximately 3,559,000,000 gallons and approximately 0.12 percent of the 2019 annual diesel fuel-related energy consumption of approximately 563,300,000 gallons in Los Angeles County,<sup>54</sup> as shown in Appendix D of this Draft EIR.

Transportation fuels (gasoline and diesel) are produced from crude oil, which can be domestic or imported from various regions around the world. Based on current proven reserves, crude oil production would be sufficient to meet over 50 years of worldwide consumption.<sup>55</sup>

Construction of the Project would utilize fuel-efficient equipment consistent with State and federal regulations, such as fuel efficiency regulations in accordance with the CARB Pavley Phase II standards, the anti-idling regulation in accordance with Section 2485 in 13 CCR, and fuel requirements in accordance with 17 CCR Section 93115. The Project would benefit from fuel and automotive manufacturers' compliance with CAFE standards, which would result in more efficient use of transportation fuels (lower consumption). As

<sup>54</sup> California Energy Commission, California Retail Fuel Outlet Annual Reporting (CEC-A15) Results, 2010-2020, <https://www.energy.ca.gov/media/3874>, accessed January 28, 2022. Diesel is adjusted to account for retail (49 percent) and non-retail (51 percent) diesel sales.

<sup>55</sup> BP Global, Oil reserves, 2018, <https://www.bp.com/en/global/corporate/energy-economics/statistical-review-of-world-energy/oil.html>, accessed December 5, 2020.

such, the Project would indirectly comply with regulatory measures to reduce the inefficient, wasteful, and unnecessary consumption of energy, such as petroleum-based transportation fuels. While these regulations are intended to reduce construction emissions, compliance with the anti-idling and emissions regulations discussed above would also result in fuel savings from the use of more fuel-efficient engines.

In addition, the Project would divert mixed construction and demolition debris to City-certified construction and demolition waste processors using City-certified waste haulers, consistent with the Los Angeles City Council approved Ordinance No. 181519 (LAMC Chapter VI, Article 6, Section 66.32-66.32.5). Diversion of mixed construction and demolition debris would reduce truck trips to landfills, which are typically located some distance away from City centers, and would increase the amount of waste recovered (e.g., recycled, reused, etc.) at material recovery facilities, thereby further reducing transportation fuel consumption.

Based on the analysis above, construction would utilize energy only for necessary on-site activities and to transport construction materials and demolition debris to and from the Project Site. As discussed above, idling restrictions and the use of cleaner, energy-efficient equipment and fuels would result in less fuel combustion and energy consumption, and thus minimize the Project's construction-related energy use. **Therefore, construction of the Project would not result in the wasteful, inefficient, and unnecessary consumption of energy.**

*(ii) Operation*

During operation of the Project, energy would be consumed for multiple purposes, including, but not limited to, on-road mobile sources (i.e., transportation fuel), area sources (i.e., landscape maintenance equipment, emergency generators, and natural gas heating), energy (i.e., electricity, natural gas), water conveyance and wastewater treatment, and solid waste. Usage of these energy sources was calculated for the Project buildout year (2030). **Table IV.C-4, Summary of Annual Net New Energy Use During Project Operation – Project**, summarizes the Project's annual net new operational energy demand for electricity, natural gas, and gasoline and diesel transportation fuels.

**TABLE IV.C-4**  
**SUMMARY OF ANNUAL NET NEW ENERGY USE DURING PROJECT OPERATION – PROJECT <sup>a,c</sup>**

<b>Energy Type</b>	<b>Annual Quantity <sup>b</sup></b>
<b>Electricity</b>	
Existing Site	(6,542,773 kWh)
Project	
Building Energy	26,378,029 kWh
Water Conveyance	859,813 kWh
Cooling Tower	146,176 kWh
EV Charging	398,288 kWh
Project Subtotal	27,782,306 kWh
<b>Total Net Electricity</b>	<b>21,239,533 kWh</b>
<b>Natural Gas</b>	
Existing Site	(7,336,832 cf)
Project	
Building Energy	0 cf
Mobile Sources	2,830,007 cf
Project Subtotal	2,830,007 cf
<b>Total Net Natural Gas</b>	<b>(4,506,825) cf</b>
<b>Transportation Fuel</b>	
Existing Site	
Gasoline	(80,824 gallons)
Diesel – Vehicles	(405,691 gallons)
Diesel – Emergency Generators	(2,467 gallons)
Project	
Gasoline	1,079,134 gallons
Diesel – Vehicles	217,745 gallons
Diesel – Emergency Generators	28,440 gallons
<b>Total Net Transportation Fuel – Gasoline</b>	<b>998,310 gallons</b>
<b>Total Net Transportation Fuel – Diesel</b>	<b>(190,414) gallons</b>

kWh = kilowatt-hours

cf = cubic feet

<sup>a</sup> Detailed calculations are provided in Appendix D of this Draft EIR.

<sup>b</sup> Totals may not add up exactly due to rounding of decimals.

<sup>c</sup> Negative values are denoted using parentheses.

<sup>d</sup> Transportation fuel totals incorporate VMT reductions associated with implementation of Project land use characteristics that are consistent with SCAG 2020-2045 RTP/SCS actions and strategies.

SOURCE: ESA, 2023.

### (a) Electricity

Based on the 2019 Title 24 standards and applicable 2019 CALGreen requirements and associated building energy factors in CalEEMod, at buildout, the Project would result in a projected net increase in the on-site annual demand for electricity totaling 21,239,533 kWh for the Project, as shown in Table IV.C-4.

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 United States Green Building Council (USGBC) Leadership in Energy and Environmental Design (LEED) Gold Certification 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 is not yet known which specific credits in each of the LEED categories the Project will achieve; therefore, it is not possible at this time to accurately quantify specific amounts of energy reduction the Project would achieve from LEED Gold Certification above regulatory requirements. Therefore, LEED Gold Certification is not quantitatively accounted for in this analysis.

These measures also 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 will 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. 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). These measures were generally accounted for based on compliance with 2019 Title 24 standards.

In addition, LADWP was required to procure at least 33 percent of its energy portfolio from renewable sources by 2020 (LADWP has met this requirement as discussed below). With the passage of SB 100 in September 2018, LADWP will be required to update its long-term plans to demonstrate compliance including providing 60 percent of its energy portfolio from renewable sources by December 31, 2030, and ultimately planning for 100 percent eligible renewable energy resources and zero-carbon resources by December 31, 2045. LADWP's current sources include biomass and biowaste, geothermal, eligible hydroelectric, solar, and wind sources. These sources accounted for 34 percent of LADWP's overall energy mix in 2019, the most recent year for which data

are available, and represent the available off-site renewable sources of energy that would meet the Project's energy demand.<sup>56</sup>

LADWP generates its load forecast to account for regional economic and population growth based on multiple forms of data from various agencies, including historical sales from the General Accountings Consumption and Earnings report, historical Los Angeles County employment data provided from the State's Economic Development Division, plug-in electric vehicle (PEV) projections from the CEC account building permits when determining electricity Load Forecasts, solar rooftop installations from the Solar Energy Development Group, electricity price projections from the Financial Services organization, and LADWP program efficiency forecasts.<sup>57</sup> In addition, LADWP considers projected Los Angeles County building permit amounts calculated by the UCLA Anderson School of Management when determining its load forecast and would, therefore, account for the Project's electricity demand.<sup>58</sup>

Based on LADWP's collected data in its 2017 Power Strategic Long-Term Resource Plan, LADWP forecasts that its net energy for load in the 2030-2031 fiscal year (the Project's buildout year) will be 28,260 GWh of electricity.<sup>59,60</sup> As such, the Project-related net increase in annual electricity consumption of 21,239,533 kWh for the Project would represent 0.08 percent of LADWP's projected sales in 2030 and would be within LADWP's projected electricity supplies.

As previously described, the Project incorporates a variety of energy and water conservation measures and features to reduce energy usage and minimize energy demand. **Therefore, with the incorporation of these measures and features, operation of the Project would not result in the wasteful, inefficient, or unnecessary consumption of electricity.**

#### (b) Natural Gas

Due to the City's adoption of Ordinance No. 187714 (All-Electric Building Ordinance), effective on April 1, 2023 and on June 1, 2023 for affordable housing projects, which does not allow combustion equipment (i.e., equipment or appliance used for space heating, water heating, cooking, clothes drying, lighting, or other type of equipment, the Project buildings will utilize electricity instead of natural gas. Accordingly, natural gas would not be supplied to support Project operational activities related to building energy. However,

<sup>56</sup> Los Angeles Department of Water and Power, 2019 Power Content Label, October 2020.

<sup>57</sup> Los Angeles Department of Water and Power, 2017 Final Power Strategic Long-Term Resource Plan, December 2017, page 70.

<sup>58</sup> Los Angeles Department of Water and Power, 2017 Final Power Strategic Long-Term Resource Plan, December 2017, page 67.

<sup>59</sup> Los Angeles Department of Water and Power defines its future electricity supplies in terms of sales that will be realized at the meter.

<sup>60</sup> Los Angeles Department of Water and Power P, 2017 Final Power Strategic Long-Term Resource Plan, December 2017, page 14.

it is estimated from EMFAC2021 that approximately 2,830,007 cf of natural gas would be used for Project operation activities related to transportation sources (i.e., natural gas-fueled vehicles), as indicated in Table IV.C-4 which is discussed in further detail under *Transportation Energy*. For the purposes of the Project's operational building energy demand, the Project would result in no impacts from operational natural gas demand and would not result in the wasteful, inefficient, and unnecessary consumption of energy.

#### (c) Stationary Sources

The Project 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 fuel usage 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 purposes of estimating maximum daily emissions, it is estimated that the emergency generators would operate for up to two hours in a day for maintenance and testing purposes. As shown in Table IV.C-4, diesel fuel usage would be approximately 28,440 gallons per year related to testing and maintenance of the emergency generator.<sup>61</sup>

#### (d) Transportation Energy

During operation, Project-related traffic would result in the consumption of petroleum-based fuels related to vehicular travel to and from the Project Site. A majority of the vehicle fleet that would be used by Project residents, employees, and visitors would consist of light-duty automobiles and light-duty trucks, which are subject to fuel efficiency standards. Annual trips for the Project were estimated using trip rates provided in the Project's TA included in Appendix J of this Draft EIR.<sup>62</sup>

As shown in Table IV.C-4, the Project's estimated annual net increase in petroleum-based fuel usage would be 998,310 gallons of gasoline and would decrease natural gas usage by 4,506,825 cf and diesel fuel use by 190,414 gallons due to the Project's land use change from a warehouse and cold storage facility that requires a high volume of diesel-powered heavy-duty trucks to a mixed-use land use that results in far less heavy duty trucks and more passenger vehicle trips. SoCalGas accounts for anticipated regional

<sup>61</sup> Analysis assumes up to 50 hours total per year of emergency generator testing and maintenance per SCAQMD Rule 1470. See Appendix D of this Draft EIR for calculation details.

<sup>62</sup> Gibson Transportation Consulting, Inc., Transportation Assessment for the Fourth & Central Project, June 2022. Provided in Appendix J of this Draft EIR.

demand based on various factors, including growth in employment by economic sector, growth in housing and population, and increasingly demanding state goals for reducing GHG emissions. SoCalGas accounts for an increase in employment and housing between 2018 to 2035. Furthermore, the 2020 California Gas Report estimates that natural gas supplies within SoCalGas' planning area will be 820,520 million cf in 2030 (the Project's buildout year) (California Gas and Electric Utilities 2020). As stated above, the Project's annual net decrease in demand for natural gas is estimated to be 4,506,825. Therefore, the Project would fall within SoCalGas' projected consumption for the area and would be consistent with SoCalGas' anticipated regional demand from population or economic growth. Based on the California Energy Commission's *California Annual Retail Fuel Outlet Report*, Los Angeles County consumed approximately 3,559,000,000 gallons of gasoline and approximately 563,300,000 gallons of diesel fuel in 2019.<sup>63</sup> The Project would account for approximately 0.028 percent of County's 2019 gasoline consumption and would not increase County diesel consumption.

The Project would benefit from fuel and automotive manufacturers' compliance with CAFE standards, which would result in more efficient use of transportation fuels (lower consumption). Project-related vehicle trips would also indirectly benefit from Pavley Standards, which are designed to reduce vehicle GHG emissions by mandating increasingly stringent emissions standards on new vehicles but would also result in fuel savings from more efficient engines in addition to compliance with CAFE standards.

The Project would support Statewide efforts to improve transportation energy efficiency and reduce transportation energy consumption with respect to private automobiles for the reasons provided below. As discussed in detail in Section IV.E, *Greenhouse Gas Emissions*, 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. The Project represents an infill development at a location served by several local and regional bus lines. 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. 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 fuel consumption.

Based on the above, the Project would minimize operational transportation fuel demand consistent with State, regional, and City goals. **Therefore, operation of the Project would not result in the wasteful, inefficient, and unnecessary consumption of energy.**

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<sup>63</sup> California Energy Commission, California Retail Fuel Outlet Annual Reporting (CEC-A15) Results, 2010-2020, <https://www.energy.ca.gov/media/3874>, accessed January 28, 2022. Diesel is adjusted to account for retail (49 percent) and non-retail (51 percent) diesel sales.



(e) Summary of Energy Requirements and Energy Use Efficiencies

As previously discussed, CEQA Guidelines Appendix F recommends quantification of a project's energy requirements and its energy use efficiencies by amount and fuel type for each stage of the project's life cycle including construction, operation, maintenance, and/or removal. If appropriate, the energy intensiveness of materials may be discussed. The Project's energy requirements were calculated based on the methodology contained in CalEEMod for electricity usage. Project VMT data were calculated based on the LADOT VMT Calculator. The calculations also took into account energy efficiency measures, such as Title 24, CALGreen Code, LA's Green New Deal, and vehicle fuel economy standards. Table IV.C-3 and Table IV.C-4 provide a summary of Project construction and operational energy usage, respectively. During Project construction activities, a total of 5,093,872 kWh of electricity would be consumed along with 1,773,866 gallons of gasoline and 3,204,734 gallons of diesel fuel. During Project operations, 21,239,533 kWh of electricity would be consumed on an annual basis. The Project would also result in 998,310 gallons of gasoline and a net decrease of 190,414 gallons of diesel on an annual basis. When accounting for project design features and increased energy efficiency measures as described in Project Design Feature GHG-PDF-1, which include the Project buildings achieving the United States Green Building Council (USGBC) Leadership in Energy and Environmental Design (LEED) Gold Certification to improve building energy efficiency above regulatory requirements. These measures also include tree landscaping to provide passive solar shading and use cool roof/pavement coatings to reduce the urban heat island effect. 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 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. Transportation fuel usage would be reduced by 34 percent compared to the Project without trip reduction features. Detailed calculations demonstrating this reduction are provided in Appendix D of this Draft EIR.

(b) *The Effects of the Project on Local and Regional Energy Supplies and on Requirements for Additional Capacity*

(i) *Construction*

As discussed above, electricity would be consumed during Project construction activities. The electricity demand at any given time would vary throughout the construction period based on the construction activities being performed and would cease upon completion of construction. Electricity would be supplied to the Project Site by LADWP and would be obtained from the existing electrical lines that connect to the Project Site. While temporary power poles would be installed to provide electricity during Project construction, the existing off-site infrastructure would not have to be expanded or newly developed to

provide electrical service to the Project Site during construction or demolition. As shown in Table IV.C-3, annual average construction electricity usage would be approximately 1,092,399 kWh, which would be less than the existing annual site electricity demand of approximately 6,542,773 kWh and would be within the supply and infrastructure capabilities of LADWP (forecasted to be 28,260 GWh net energy load in the 2030-31 fiscal year).<sup>64,65</sup> The electricity demand at any given time would vary throughout the construction period based on the construction activities being performed and would cease upon completion of construction. Electricity demand during Project construction would be 4.1 percent of the Project's net annual operational electricity consumption, which would be within the supply and infrastructure capabilities of LADWP and, thus, would not result in an increase in demand for electricity that exceeds available supply or distribution infrastructure capabilities that could result in the construction of new facilities or expansion of existing facilities.

Construction activities, including the construction of new buildings and facilities, typically do not involve the consumption of natural gas. Accordingly, natural gas would not be supplied to support Project construction activities; thus, there would be no demand generated by construction.

As stated above, transportation fuel usage during Project construction activities would represent approximately 0.008 percent of gasoline usage and approximately 0.14 percent of diesel usage within Los Angeles County, respectively. Construction transportation energy would be provided by existing retail service stations and from existing mobile fuel services that are typically needed to deliver fuel to a construction site to refuel the off-road construction equipment at the Project Site, and, as such, no new facilities would be required. **As energy consumption during construction would not be substantial, would be temporary and short-term, and as energy supplies of the existing purveyors are sufficient to serve Project construction in addition to existing commitments, Project construction would not affect the local and/or regional energy supplies and would not require additional capacity.**

(ii) *Operation*

(a) *Electricity*

Based on LADWP's 2017 Power Strategic Long-Term Resource Plan, LADWP forecasts that its net energy for load in the 2030-2031 fiscal year (the Project's buildout year) will

<sup>64</sup> Los Angeles Department of Water and Power defines its future electricity supplies in terms of sales that will be realized at the meter.

<sup>65</sup> Los Angeles Department of Water and Power, 2017 Power Strategic Long-Term Resource Plan, December 2017, Appendix A, Table A-1.

be 28,260 GWh of electricity.<sup>66,67</sup> The Project-related net increase in annual electricity consumption of 21,239,533 kWh/year would represent 0.08 percent of LADWP's projected sales for the 2030-2031 fiscal year and would be consistent with LADWP's anticipated regional demand from population or economic growth. During peak conditions, the Project would represent 0.08 percent of the LADWP estimated peak load. Further, LADWP has issued a will-serve letter confirming that the Project is part of the total load growth forecast and has been taken into account in the planned growth of the City's power system.<sup>68</sup> Based on these factors, it is anticipated that LADWP's existing and planned electricity capacity and electricity supplies would be sufficient to serve the Project's electricity demand, and, thus, the Project would not require additional infrastructure (i.e., a substation) beyond the aforementioned proposed utilities installed on-site during construction.

#### (b) Natural Gas

As stated above, the Project would not include natural gas supply infrastructure for the Project buildings. Project buildings would use exclusively electricity for building power needs. The estimated 2,830,007 cf of natural gas shown in Table 3.6-2 would be utilized for transportation sources (i.e., natural gas-fueled vehicles). As stated above, the Project's estimated annual net decrease in demand for natural gas would be 4,506,825 cf. Based on the 2020 California Gas Report, the California Energy and Electric Utilities estimates that natural gas consumption within SoCalGas' planning area will be 820,520 million cf in 2030 (the Project's buildout year).<sup>69</sup> This report predicts gas demand for all sectors (residential, commercial, industrial, energy generation and wholesale exports) and presents best estimates, as well as scenarios for hot and cold years. Therefore, the Project would fall within SoCalGas' projected consumption and supplies for the area. SoCalGas expects overall natural gas demand to decline through 2035, even accounting for population and economic growth, with efficiency improvements and the State's transition away from fossil fuel-generated electricity to increased renewable energy. The 2020 California Gas Report states, "SoCalGas projects total gas demand to decline at an annual rate of one percent from 2020-2035. The decline in throughput demand is due to modest economic growth, and CPUC-mandated energy efficiency (EE) standards and programs and SB 350 goals."<sup>70</sup> As such, SoCalGas' existing and planned natural gas capacity, supplies and infrastructure would be sufficient to serve the Project's demand.

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<sup>66</sup> Los Angeles Department of Water and Power defines its future electricity supplies in terms of sales that will be realized at the meter.

<sup>67</sup> Los Angeles Department of Water and Power, 2017 Power Strategic Long-Term Resource Plan, December 2017, Appendix A, Table A-1.

<sup>68</sup> Los Angeles Department of Water and Power, Fourth & Central Will-Serve Letter, October 22, 2019. Included as Exhibit 7 of the Fourth & Central Utility Infrastructure Technical Report: Water, Wastewater, and Energy (Infrastructure Report), prepared for the Project by KPFF Consulting Engineers, dated January 2023, which is included in Appendix L-1 of this Draft EIR.

<sup>69</sup> California Gas and Electric Utilities, 2020 California Gas Report, 2020, page 145.

<sup>70</sup> California Gas and Electric Utilities, 2020 California Gas Report, 2020, page 96.

## (c) Transportation Energy

As stated above, at buildout, the Project would consume a net increase of 998,310 gallons of gasoline and would decrease diesel fuel use from existing conditions by 190,414 gallons per year. For comparison purposes, the transportation-related fuel usage for the Project would represent approximately 0.028 percent of the 2019 annual on-road gasoline consumption in Los Angeles County (based on the available County fuel sales data). Detailed calculations are shown in Appendix D of this Draft EIR. Operational transportation energy would be provided by existing retail service stations, and, as such, no new retail service stations would be required. Transportation fuels (gasoline and diesel) are produced from crude oil, which can be produced from domestic supplies or imported from various regions around the world and, based on current proven reserves, crude oil production would be sufficient to meet over 50 years of consumption.<sup>71</sup> As such, existing and planned transportation fuel supplies would be sufficient to serve the Project's demand. In addition, the Project would provide EV charging stations, which would serve to incentivize the use of hybrid or full electric vehicles, thereby reducing the reliance on transportation fuels. **As energy consumption during operation would be relatively negligible and within existing and planned supplies, the Project would not affect the local and/or regional energy supplies and would not require additional capacity.**

(c) *The Effects of the Project on Peak and Base Period Demands for Electricity and Other Forms of Energy*

As discussed above, electricity demand during construction and operation of the Project would have a negligible effect on the overall capacity of the LADWP's power grid and base load conditions and would be consistent with expected levels of electricity demand. With regard to peak load conditions, the LADWP power system experienced an all-time high peak of 6,502 MW on August 31, 2017.<sup>72</sup> LADWP also estimates a peak load based on two years of data known as base case peak demand to account for typical peak conditions. LADWP's peak demand forecast accounts for a growth rate of 0.4 percent over the next ten years (approximately 30 MW per year).<sup>73</sup> Based on LADWP estimates for 2030-2031 (project operational year), the base case peak demand for the power grid is 6,348 MW.<sup>74</sup> Under peak conditions, the Project would consume a net increase of 21,239,533 kWh on an annual basis which, assuming 12 hours of active electricity demand per day, would be equivalent to 4,849 kW (peak demand assuming 4,380 hours per year of active electricity demand).<sup>75</sup> In comparison to the LADWP power grid base

<sup>71</sup> BP Global, Oil reserves, 2018, <https://www.bp.com/en/global/corporate/energy-economics/statistical-review-of-world-energy/oil.html>. Accessed December 2020.

<sup>72</sup> Los Angeles Department of Water and Power, 2017 Retail Electric Sales and Demand Forecast, September 2017, page 6.

<sup>73</sup> Los Angeles Department of Water and Power, 2017 Power Strategic Long-Term Resource Plan, December 2017, page 74.

<sup>74</sup> Los Angeles Department of Water and Power, 2017 Power Strategic Long-Term Resource Plan, December 2017, Appendix A, Table A-1.

<sup>75</sup> Calculated as follows: 26,472,098 kWh / 4,380 hours = 6,044 kW.

peak load of 6,348 MW for 2030-2031, based on the assumption above, the Project would represent 0.08 percent of the LADWP base peak load conditions and, therefore, would not create any new peak demand impacts that are inconsistent with LADWP demand projections.<sup>76</sup> In addition, as noted above, LADWP's peak demand forecast accounts for a growth rate of 0.4 percent over the next ten years. **Therefore, the Project's electrical consumption during operational activities would have a negligible effect on peak load conditions of the power grid and is within existing and planned demand.**

(d) *The degree to which the project complies with existing energy standards*

Although Title 24 requirements typically apply to energy usage for buildings, long-term construction lighting (greater than 120 days) providing illumination for the Project Site and staging areas would also comply with applicable Title 24 requirements (includes limits on the wattage allowed per specific area). In addition, construction equipment would comply with energy efficiency requirements contained in the Federal Energy Independence and Security Act or previous Energy Policy Acts for electrical motors and equipment.<sup>77</sup> Electricity and natural gas usage during Project operations presented in Table IV.C-4 on page IV.C-33 would comply with 2019 Title 24 standards and applicable CALGreen Code and Los Angeles Green Building Code requirements. Therefore, Project construction and operational activities would comply with existing energy standards with regards to electricity and natural gas usage.

With regard to transportation fuels, trucks, and equipment used during proposed construction activities, the Project would comply with CARB's anti-idling regulations, as well as the In-Use Off-Road Diesel-Fueled Fleets regulation. Although these regulations are intended to reduce criteria pollutant emissions, compliance with the anti-idling and emissions regulations would also result in efficient use of construction-related energy. During Project operations, vehicles traveling to and from the Project Site are assumed to comply with CAFE fuel economy standards. Project-related vehicle trips would also comply with Pavley and Low Carbon Fuel Standards, which are designed to reduce vehicle GHG emissions but would also result in fuel savings in addition to CAFE standards, as required.

Based on the above, Project construction and operational activities would comply with existing energy standards with regards to electricity and natural gas usage, as well as transportation fuel consumption, and impacts would be less than significant.

(e) *The Effects of the Project on Energy Resources*

As discussed above, LADWP's electricity generation is derived from a mix of non-renewable and renewable sources, such as coal, natural gas, solar, geothermal wind and hydropower. The LADWP 2022 Power Strategic Long-Term Resource Plan identifies

<sup>76</sup> Calculated as follows: 488 kW / 6,076,000 kW = 0.007 percent.

<sup>77</sup> Energy Independence and Security Act of 2007. Pub.L. 110-140

adequate energy resources to support future generation capacity, and, as discussed above, LADWP's existing and planned electricity capacity and supplies would be sufficient to serve the Project's electricity demand.<sup>78</sup> As discussed above in the Regulatory Framework, one of the objectives of SB 350 was to increase the procurement of California's electricity from renewable sources from 33 percent to 50 percent by 2030. Accordingly, LADWP is required to procure at least 33 percent to 50 percent of its energy portfolio from renewable sources by 2030. LADWP has met its 2020 requirement. The current sources of LADWP's renewable energy include biomass and biowaste, geothermal, eligible hydroelectric, solar, and wind sources. These sources account for 36.7 percent of LADWP's overall energy mix in 2020, which is the most recent year for which data are available.<sup>79</sup> LADWP has committed to providing an increasing percentage of its energy portfolio from renewable sources so as to exceed the RPS requirements. Prior to the passage of SB 100 in September 2018, LADWP committed to exceeding the then-current RPS requirements by increasing to 50 percent by 2025, 55 percent by 2030, and 65 percent by 2036.<sup>80</sup> With the passage of SB 100, LADWP will be required to update its long-term plans to demonstrate compliance with the updated requirements including providing 60 percent of its energy portfolio from renewable sources by December 31, 2030 and ultimately planning for 100 percent eligible renewable energy resources and zero-carbon resources by December 31, 2045. This represents the available off-site renewable sources of energy that would meet the Project's energy demand.

As discussed above, natural gas supplied to the Southern California area is mainly sourced from out-of-state with a small portion originating in California. According to the U.S. Energy Information Administration (EIA), the U.S. currently has approximately 90 years of natural gas reserves based on 2016 consumption.<sup>81</sup> Compliance with energy standards is expected to result in more efficient use of natural gas (lower consumption) in future years.<sup>82</sup> Therefore, as the Project would comply with energy efficiency standards for natural gas, Project construction and operation activities would have a negligible effect on natural gas supply.

As stated earlier in the discussion under Threshold (a)(1)(i)(c) and Threshold (a)(1)(ii)(c), transportation fuels (gasoline and diesel) are produced from crude oil, which can be provided domestically or imported from various regions around the world. Based on

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<sup>78</sup> Los Angeles Department of Water and Power, 2022 Power Strategic Long-Term Resource Plan, December 2022, pages ES-42-43. "the 2022 SLTRP outlines an aggressive strategy for LADWP to accomplish goals set forth by Mayor Garcetti and the Los Angeles City Council. In addition to complying with regulatory mandates, and providing sufficient resources through 2045 given the information presently available, [the 2022 SLTRP] includes major strategic initiatives and goals"

<sup>79</sup> Los Angeles Department of Water and Power, 2020 Power Content Label, 2021.

<sup>80</sup> Los Angeles Department of Water and Power, 2017 Power Strategic Long-Term Resource Plan, December 2017, page ES-3.

<sup>81</sup> U.S. Energy Information Administration, How much natural gas does the United States have, and how long will it last?, last updated April 9, 2018, <https://www.eia.gov/tools/faqs/faq.php?id=58&t=8>, accessed December 5, 2020.

<sup>82</sup> California Energy Commission, Tracking Progress – Energy Efficiency, last updated September 2018.

current proven reserves, crude oil production would be sufficient to meet over 50 years of worldwide consumption.<sup>83</sup> Therefore, Project construction and operation activities would have a negligible effect on the transportation fuel supply.

Based on the above, the Project would minimize construction and operational energy and transportation fuel demand to the extent feasible and would not substantially impact energy resources. **Therefore, construction and operation of the Project would not have a significant impact on energy resources.**

(f) *The Project's projected transportation energy use requirements and its overall use of efficient transportation alternatives*

As discussed in Section IV.E, *Greenhouse Gas Emissions*, and Section IV.F, *Land Use and Planning*, of this Draft EIR, the SCAG 2020-2045 RTP/SCS presents the transportation vision for the region through the year 2045 and provides a long-term investment framework for addressing the region's transportation and related challenges. As shown in Exhibit 3.8 of the SCAG 2020-2045 RTP/SCS, the Project Site is located within an HQTAs, which SCAG defines as "corridor-focused Priority Growth Areas within one half 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."<sup>84</sup> The 2020-2045 RTP/SCS encourages increasing the density of development within HQTAs and other infill locations, to reduce VMT and trips.<sup>85</sup>

The Project represents an infill development at a location served by several local and regional bus lines. 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 Metro Little Tokyo/Arts District station, which is expected to complete construction and open in 2023, will be located on 1st Street between Alameda and Central Avenue, approximately 0.3 miles north of the Project's North Site. In addition, the Project will 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

<sup>83</sup> BP Global, Oil reserves, 2018, <https://www.bp.com/en/global/corporate/energy-economics/statistical-review-of-world-energy/oil.html>, accessed December 2020.

<sup>84</sup> Southern California Association of Governments, 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy, December 2020, pages 51 and 91.

<sup>85</sup> Southern California Association of Governments, 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy, December 2020, pages 50-51.

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 fuel consumption.

As a result, operation of the Project would encourage reduced transportation energy and provide Project residents, employees, and visitors with multiple convenient alternative transportation options. **Therefore, the Project encourages the use of efficient transportation energy use and efficient transportation alternatives.**

- (g) *The degree to which the Project design and/or operations incorporate energy-conservation measures, particularly those that go beyond City requirements.*

The current Los Angeles Green Building Code requires compliance with the 2022 Title 24 standards and the CALGreen Code, and is more stringent than state requirements. As detailed in the Section IV.E, *Greenhouse Gas Emissions*, the Project would comply with the Los Angeles Green Building Code to reduce GHG emissions by increasing energy-efficiency beyond requirements, reducing indoor and outdoor water demand, and complying with 2022 California Title 24 Building Energy Efficiency Standards, CALGreen Code, and the Los Angeles Green Building Code. Per Project Design Feature GHG-PDF-1, the Project would be designed to optimize energy performance and reduce building energy cost, consistent with the building energy performance standards of the Los Angeles Green Building Code. The Project would also meet the mandatory measures of the Los Angeles Green Building Code, which as mentioned above are more stringent than the CALGreen Code, by incorporating strategies such as low-flow toilets, low-flow faucets, low-flow showers, and other energy and resource conservation measures. The HVAC system would be sized and designed in compliance with the CALGreen Code to maximize energy efficiency by reducing heat loss and heat gain in the building envelope. The Project has also committed to meeting the LEED Gold standard which requires energy efficiencies beyond those required by 2022 Title 24 Building Energy Efficiency Standards, the Los Angeles Green Building Code, or the CALGreen Code. Some sustainability features included in the Project that will help to meet the LEED Gold standards include: the use of materials and finishes that emit low quantities of volatile organic compounds; the installation of HVAC systems that utilize ozone-friendly refrigerants; the installation of high-efficiency appliances; and the provision of bicycle parking and other amenities for bicyclists. In addition, the Project would incorporate a variety of water conservation features which would include, but not be 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. Further, the Project would be designed to be an all-electric development for all land uses and would exceed the City's all-electric ordinance. Therefore, the Project would be consistent with the Los Angeles Green Building Code and exceed City requirements by meeting LEED Gold standards.



(h) *Conclusion Regarding Threshold (a)*

As demonstrated by the analyses of the criteria discussed above, the Project would not cause wasteful, inefficient, or unnecessary consumption of energy during construction or operation. The Project's energy usage during peak and base periods would also not conflict with electricity, natural gas, and transportation fuel future projections for the region. During operations, the Project would comply with and exceed existing minimum energy efficiency requirements, such as the Title 24 standards and CALGreen Code. In summary, the Project's energy demands would not significantly affect available energy supplies and would comply with existing energy efficiency standards. **Therefore, Project impacts related to energy use under Significance Threshold (a) would be less than significant during construction and operation, and would not cause wasteful, inefficient, and unnecessary consumption of energy.**

(2) Mitigation Measures

Impacts regarding wasteful, inefficient, and unnecessary consumption of energy were determined to be less than significant. Therefore, no mitigation measures are required.

(3) Level of Significance After Mitigation

Impacts regarding wasteful, inefficient, and unnecessary consumption of energy 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.

***Threshold (b): Would the Project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?***

(1) Impact Analysis

The energy conservation policies and plans relevant to the Project include the California Title 24 energy standards, the CALGreen Code, the City of Los Angeles Green Building Code, City of LA Green New Deal, SCAG's 2020–2045 RTP/SCS, USEPA and NHTSA fuel efficiency standards, and CARB ant-idling regulations. As these conservation policies are mandatory under the City's Building Code, the Project would not conflict with applicable plans for renewable energy or energy efficiency. Such requirements of the Title 24, CALGreen Code, and the City's Green Building Code include specific lighting requirements to conserve energy, window glazing to reflect heat, enhanced insulation to reduce heating and ventilation energy usage, and enhanced air filtration. The Project would implement these measures as required by code. The 2019 Title 24 standards ensure that builders use the most energy efficient and energy conserving technologies and construction practices. In addition, the Project would implement measures to comply with Title 24 energy efficiency requirements, including Project Design Features GHG-PDF-1, as discussed above and included in Section IV.D, *Greenhouse Gas Emissions*, of this Draft EIR.

A detailed discussion of the Project's comparison with the applicable actions and strategies in the L.A.'s Green New Deal is provided in Section IV.E, *Greenhouse Gas Emissions*. As discussed, the Project is designed in a manner that is consistent with and not in conflict with relevant energy conservation plans that are intended to encourage development that results in the efficient use of energy resources. The Project would comply with applicable regulatory requirements for the design of new buildings, including the provisions set forth in the Title 24 standards and CALGreen Code, which have been incorporated into the City's Green Building Code as amended by the City, to be more stringent than State requirements in LAMC Chapter 9, Article 9 (Green Building Code).

Electricity and natural gas usage during Project operations, as presented in Table IV.C-4, would be minimized through incorporation of applicable 2019 Title 24 standards, applicable 2019 CALGreen requirements, and the Los Angeles Green Building Code.

The Project would also be consistent with and not conflict with regional planning strategies that address energy conservation. As discussed above and in Section IV.E, *Greenhouse Gas Emissions*, as well as Section IV.F, *Land Use and Planning*, of this Draft EIR, SCAG's 2020-2045 RTP/SCS focuses on creating livable communities with an emphasis on sustainability and integrated planning, and identifies mobility, economy, and sustainability as the three principles most critical to the future of the region. As part of the approach, the 2020-2045 RTP/SCS focus on reducing fossil fuel use by decreasing VMT, encouraging the reduction of building energy use, and increasing use of renewable sources. The Project's design and its location on an infill site within an HQTAs in proximity to transit; its proximity to existing off-site retail, restaurant, entertainment, commercial, and job destinations; and its walkable environment would achieve a reduction in VMT. These land use characteristics are included in the transportation fuel demand for the Project's mobile sources. Additional detailed information regarding these land use characteristics are provided in Section IV.A, *Air Quality*, and Section IV.E, *Greenhouse Gas Emissions*, of this Draft EIR. With respect to operational transportation-related fuel usage, the Project would support Statewide efforts to improve transportation energy efficiency and reduce transportation energy consumption with respect to private automobiles. The Project would also benefit from fuel and automotive manufacturers' compliance with CAFE fuel economy standards and the Pavley Standards, which are designed to result in more efficient use of transportation fuels.

With respect to truck fleet operators, the USEPA and NHTSA have adopted fuel efficiency standards for medium- and heavy-duty trucks. The Phase 1 heavy-duty truck standards apply to combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles and are phased in for model years 2014 through 2018 and result in a reduction in fuel consumption from six to 23 percent over the 2010 baseline, depending on the vehicle type.<sup>86</sup> USEPA and NHTSA also adopted the Phase 2 heavy-duty truck standards, which

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<sup>86</sup> U.S. Environmental Protection Agency, Fact Sheet: EPA and NHTSA Adopt First-Ever Program to Reduce Greenhouse Gas Emissions and Improve Fuel Efficiency of Medium- and Heavy-Duty Vehicles, August 2011.

would be phased in from model years 2021 through 2027 and require the phase-in of a five to 25 percent reduction in fuel consumption over the 2017 baseline depending on the compliance year and vehicle type.<sup>87</sup> The energy modeling for trucks does not take into account specific fuel reductions from these regulations, since they would apply to fleets as they incorporate newer trucks meeting the regulatory standards; however, these regulations would have an overall beneficial effect on reducing fuel consumption from trucks over time as older trucks are replaced with newer models that meet the standards.

In addition, construction equipment and trucks are required to comply with CARB regulations regarding heavy-duty truck idling limits of five minutes at a location and the phase-in of off-road emission standards that result in an increase in energy savings in the form of reduced fuel consumption from more fuel-efficient engines. Although these regulations are intended to reduce criteria pollutant emissions, compliance with the anti-idling and emissions regulations would also result in the efficient use of construction-related energy.

As a result, the Project would implement project design features and incorporate water conservation, energy conservation, landscaping, and other features consistent with applicable actions and strategies in the L.A.'s Green New Deal, including features that go beyond those specified by regulations, such as the City's Green Building Code. The Project's design would comply with existing energy standards and incorporate project design features to reduce energy consumption. **Therefore, the Project would not conflict with energy conservation plans and impacts would be less than significant.**

## (2) Mitigation Measures

Impacts regarding conflicts with or obstructing a state or local plan for renewable energy or energy efficiency were determined to be less than significant. Therefore, no mitigation measures are required.

## (3) Level of Significance After Mitigation

Impacts regarding conflicts with or obstructing a State or local plan for renewable energy or energy efficiency 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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<sup>87</sup> U.S. Environmental Protection Agency, Federal Register/Vol. 81, No. 206/Tuesday, Greenhouse Gas Emissions and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles—Phase 2, October 25, 2016.

## e) Cumulative Impacts

### (1) Impact Analysis

#### (a) *Threshold (a): Wasteful, Inefficient and Unnecessary use of Energy*

Cumulative impacts occur when the incremental effects of a proposed project are significant when combined with similar impacts from other past, present, or reasonably foreseeable projects in a similar geographic area. As presented in Chapter III, *Environmental Setting*, of this Draft EIR, Table III-1, the City has identified 39 related projects located within the vicinity of the Project Site. The geographic context for the analysis of cumulative impacts on electricity is LADWP's service area, and the geographic context for the analysis of cumulative impacts on natural gas is SoCalGas' service area, because the Project and related projects are located within the service boundaries of LADWP and SoCalGas. While the geographic context for transportation-related energy use is more difficult to define, the City has determined to consider the Project in the context of County-wide consumption given the tendency for vehicles to travel within and through the County and the availability of County-level data. Growth within these geographies is anticipated to increase the demand for electricity, natural gas, and transportation energy, as well as the need for energy infrastructure, such as new or expanded energy facilities.

#### (i) *Electricity*

Buildout of the Project, related projects, and additional forecasted growth in LADWP's service area would cumulatively increase the demand for electricity supplies and on infrastructure capacity. However, LADWP, in coordination with the CEC, account for future increases in service area demand based on various economic, population, and efficiency factors. LADWP relies on multiple forms of data from various agencies, including historical sales from the General Accountings Consumption and Earnings report, historical Los Angeles County employment data provided from the State's Economic Development Division, PEV projections from the CEC account building permits when determining electricity Load Forecasts, solar rooftop installations from the Solar Energy Development Group, electricity price projections from the Financial Services organization, and LADWP program efficiency forecasts.<sup>88</sup> As described in LADWP's 2017 Power Strategic Long-Term Resource Plan, LADWP would continue to expand delivery capacity as needed to meet demand increases within its service area at the lowest cost and risk consistent with LADWP's environmental priorities and reliability standards.<sup>89</sup> The 2017 Power Strategic Long-Term Resource Plan takes into account future energy demand, advances in renewable energy resources and technology, energy efficiency,

<sup>88</sup> Los Angeles Department of Water and Power, 2017 Power Strategic Long-Term Resource Plan, December 2017, page 70.

<sup>89</sup> Los Angeles Department of Water and Power, 2017 Power Strategic Long-Term Resource Plan, December 2017, page ES-2.

conservation, and forecast changes in regulatory requirements.<sup>90</sup> Accordingly, LADWP considers projected Los Angeles County building permit amounts calculated by the UCLA Anderson School of Management when determining its load forecast and would, therefore, account for the Project's and the related projects' electricity demand within its forecasts.<sup>91</sup> Thus, LADWP considers growth from related projects within its service area for the increase in demand for electricity, as well as the need for energy infrastructure, such as new or expanded energy facilities.

Thus, although Project development would result in the use of renewable and non-renewable electricity resources during construction and operation, which could affect future availability, the Project's use of such resources would be on a relatively small scale and would be reduced by measures rendering the Project more energy efficient. Further, LADWP has issued a will-serve letter confirming that the Project is part of the total load growth forecast and has been taken into account in the planned growth of the City's power system.<sup>92</sup> Related projects, as with the Project, would be required to evaluate energy impacts during construction and operation related to the wasteful, inefficient or unnecessary use of electricity, incorporate energy conservation features, comply with applicable regulations including the City's Green Building Code, the Title 24 standards and CALGreen Code, and incorporate mitigation measures, as necessary under CEQA. Related projects, as with the Project, would also be required to evaluate potential impacts related to local and regional supplies or capacity based on regional growth plans, such as the SCAG 2020-2045 RTP/SCS, and LADWP energy supply projections for long-term planning. Each of the related projects would be reviewed by the local utility provider to identify necessary electricity service connections to meet the needs of their respective projects. In addition, the local utility provider would provide service letters (which take into account all current uses and projected future development projects) for each related project confirming availability of adequate electricity supplies and infrastructure as part of the total load growth of the regional power system and. Project applicants would be required to provide for the needs of their individual projects, thereby contributing to the electrical infrastructure in the Project Site area.

Additionally, as discussed above, LADWP was required to procure a minimum of 33 percent of its energy portfolio from eligible renewables sources by 2020, which LADWP has achieved. LADWP's current sources of renewable energy include biomass and biowaste, geothermal, eligible hydroelectric, solar and wind, and accounted for 34 percent of LADWP's overall energy mix, the most recent year for which data are available.<sup>93</sup> This

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<sup>90</sup> Los Angeles Department of Water and Power, 2017 Power Strategic Long-Term Resource Plan, December 2017, page ES-2.

<sup>91</sup> Los Angeles Department of Water and Power, 2017 Power Strategic Long-Term Resource Plan, December 2017, page 67.

<sup>92</sup> Los Angeles Department of Water and Power, Fourth & Central Will-Serve Letter, October 22, 2019. Included as Exhibit 7 of the Fourth & Central Utility Infrastructure Technical Report: Water, Wastewater, and Energy (Infrastructure Report), prepared for the Project by KPFF Consulting Engineers, dated January 2023, which is included in Appendix L-1 of this Draft EIR.

<sup>93</sup> Los Angeles Department of Water and Power, 2019 Power Content Label, October 2020.

represents the available off-site renewable sources of energy that could meet the Project's and related projects energy demand. Therefore, the Project and related projects would comply with the energy conservation plans and efficiency standards required to ensure efficient energy use.

**As such, the Project's impact, when considered together with related projects, would not be cumulatively considerable and would not result in cumulatively significant impacts related to wasteful, inefficient or unnecessary use of electricity.**

(ii) *Natural Gas*

Buildout of the Project, related projects, and additional forecasted growth in SoCalGas' service area would cumulatively increase the demand for natural gas supplies and on infrastructure capacity. As stated above, based on the 2020 California Gas Report, the CEC estimates natural gas consumption within SoCalGas' planning area will be approximately 820,520 million cf in 2030 (the Project's buildout year).<sup>94</sup> The Project would result in a net decrease in natural gas consumption and would not cause an increase in demand in the SoCalGas planning area in 2030. SoCalGas forecasts consider projected population growth and development based on local and regional plans, and the Project's growth and development would not conflict with those projections. Additionally, as with the Project, each of the related projects would be reviewed by SoCalGas to identify necessary natural gas service connections to meet the needs of their respective projects, and SoCalGas would provide service letters for each related project confirming availability of adequate natural gas supplies as part of the total load growth of the regional natural gas system. Natural gas infrastructure is expanded and improved in response to increasing demand and it is expected that SoCalGas would continue to expand delivery capacity if necessary to meet growth requirements in the service area. Although Project development would result in the use of natural gas resources, which could limit future availability, the use of such resources would be on a relatively small scale, would be reduced by measures rendering the Project more energy-efficient, would be consistent with regional and local growth expectations for SoCalGas' service area, and would not result in the need to construct new or expand existing natural gas facilities or distribution lines.

Related projects, as with the Project, would be required to evaluate natural gas impacts during construction and operation related to the wasteful, inefficient or unnecessary use of natural gas, incorporate energy conservation features, comply with applicable regulations including the Los Angeles Green Building Code, the Title 24 standards and CALGreen Code, and incorporate mitigation measures, as necessary under CEQA. As with the Project, related projects would also be required to obtain evidence of service from SoCalGas, or the appropriate utility provider, to ensure that natural gas service would be available and provided to meet related project demands. Furthermore, the related projects are generally infill projects in a highly urbanized area already served by

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<sup>94</sup> California Gas and Electric Utilities, 2020 California Gas Report, 2020, page 145.

existing facilities and are generally residential, mixed-use, and commercial projects and not high-energy demand facilities, such as heavy industrial uses.

**As such, the Project's contribution to cumulative impacts due to wasteful, inefficient and unnecessary use of natural gas would not be cumulatively considerable, and, thus, cumulative impacts would be less than significant.**

*(iii) Transportation Energy*

Buildout of the Project, related projects, and additional forecasted growth would cumulatively increase the demand for transportation-related fuel in the state and region. As described above, at buildout, the Project would consume a total net increase of 998,310 gallons of gasoline and would reduce diesel consumption by 190,414 gallons per year. For comparison purposes, the transportation-related fuel usage for the Project would represent approximately 0.028 percent of the 2019 annual on-road gasoline-related energy consumption and in Los Angeles County (based on the available County fuel sales data), as shown in Appendix D of this Draft EIR.

Additionally, as described above, petroleum currently accounts for 90 percent of California's transportation energy sources; however, over the last decade the State has implemented several policies, rules, and regulations to improve vehicle efficiency, increase the development and use of alternative fuels, reduce air pollutants and GHGs from the transportation sector, and reduce VMT, which would reduce reliance on petroleum fuels.

The Project would not conflict with the energy efficiency policies emphasized by the 2020-2045 RTP/SCS. As discussed previously, the Project would be consistent with and not conflict with SCAG's land use type for the area and would encourage alternative transportation and a reduction in overall VMT. The Project Site is an infill location close to jobs, off-site housing, shopping and entertainment uses and in close proximity to existing public transit stops, which would result in reduced VMT, as compared to a project of similar size and land uses at a location without close and walkable access to off-site destinations and public transit stops. The Project would locate 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 people in the neighborhood and community to utilize the nearby Project Site land uses. Therefore, operation of the Project would provide visitors, residents, and employees with transportation options, and the implementation of construction features would reduce idling times and construction transportation fuel use.

The 2020-2045 RTP/SCS is a regional planning tool that address cumulative growth and resulting environmental effects and is applicable to the Project and related projects with respect to transportation energy efficiency. Related projects would be required under CEQA to evaluate if their respective developments would conflict with the energy efficiency policies emphasized by the 2020-2045 RTP/SCS, such as the per capita VMT

targets, promotion of alternative forms of transportation, proximity to public transportation options, provisions for encouraging multi-modal and energy efficient transit, such as by accommodating bicycle parking and EV chargers at or above regulatory requirements. Furthermore, as with the Project, the related projects within the Project vicinity and HQTAs would similarly be expected to reduce VMT by encouraging the use of alternative modes of transportation and other design features that promote VMT reductions that would not be in conflict with applicable provisions of the SCAG 2020-2045 RTP/SCS for the land use type.

**Since the Project would not conflict with the 2020-2045 RTP/SCS, the Project's contribution to cumulative impacts due to wasteful, inefficient or unnecessary use of transportation fuel would not be cumulatively considerable, and, thus, cumulative impacts would be less than significant.**

*(iv) Conclusion*

**Based on the analysis provided above, the Project's contribution to cumulative impacts related to energy consumption (i.e., electricity, natural gas, and transportation energy) would not result in a cumulatively considerable effect related to potentially significant environmental impacts due to the wasteful, inefficient and unnecessary consumption of energy during construction or operation. As such, cumulative energy impacts under Threshold (a) would be less than significant.**

*(b) Threshold (b): Consistency with State or Local Plan*

*(i) Electricity*

Buildout of the Project, related projects, and additional forecasted growth in LADWP's service area would cumulatively increase the demand for electricity supplies and on infrastructure capacity. However, as discussed above, LADWP and the CEC account for increases in demand and load forecast based on various economic, population, and efficiency factors and relies on multiple forms of data from various agencies.<sup>95</sup> In addition, LADWP considers projected Los Angeles County building permit amounts when determining its load forecast and would therefore account for the Project's and the related projects' electricity demand within its forecasts.<sup>96</sup>

Related projects, as with the Project, would be required to evaluate electricity conservation features and compliance with applicable electricity efficiency plans and standards, including the Los Angeles Green Building Code, the Title 24 standards and CALGreen Code, and incorporate mitigation measures, as necessary under CEQA. Related projects, as with the Project, would also be required to evaluate potential impacts

<sup>95</sup> Los Angeles Department of Water and Power, 2017 Power Strategic Long-Term Resource Plan, December 2017, page 70.

<sup>96</sup> Los Angeles Department of Water and Power, 2017 Power Strategic Long-Term Resource Plan, December 2017, page 67.



related to consistency with the L.A.'s Green New Deal standards, and local and regional supplies or capacity based on regional growth plans, such as the LADWP energy supply projections for long-term planning.

**As such, the Project's contribution to cumulative impacts due to conflicting with or obstruction of a State or local plan for renewable energy or energy efficiency would not be cumulatively considerable, and, thus, cumulative impacts would be less than significant.**

*(ii) Natural Gas*

Buildout of the Project, related projects, and additional forecasted growth in SoCalGas' service area would cumulatively increase the demand for natural gas supplies and on infrastructure capacity. However, as discussed above, SoCalGas forecasts take into account projected population growth and development based on local and regional plans, and the Project's growth and development would not conflict with those projections.

Related projects, as with the Project, would be required to evaluate natural gas conservation features and compliance with applicable regulations, including the Los Angeles Green Building Code, the Title 24 standards and CALGreen Code, and incorporate mitigation measures, as necessary under CEQA. Related projects, as with the Project, would also be required to evaluate potential impacts related to consistency with the L.A.'s Green New Deal standards, and local and regional supplies or capacity based on regional growth plans, such as the SoCalGas energy supply projections for long-term planning.

**As such, the Project's contribution to cumulative impacts due to conflicting with or obstruction of a State or local plan for renewable energy or energy efficiency would not be cumulatively considerable, and, thus, cumulative impacts would be less than significant.**

*(iii) Transportation Energy*

Buildout of the Project, related projects, and additional forecasted growth would cumulatively increase the demand for transportation-related fuel in the state and region. However, as discussed above, the Project would not conflict with the energy efficiency policies emphasized by the 2020-2045 RTP/SCS. As discussed previously, the Project would be consistent with and not conflict with SCAG's land use type for the area and would encourage alternative transportation and achieve a reduction in VMT compared to a standard non-infill project and based on its location efficiency.

The 2020-2045 RTP/SCS is a regional planning tool that addresses cumulative growth and resulting environmental effects and is applicable to the Project, and related projects with respect to transportation energy efficiency. Related projects would be required under CEQA to evaluate if their respective developments would conflict with the energy efficiency policies emphasized by the 2020-2045 RTP/SCS, such as the per capita VMT

targets, promotion of alternative forms of transportation, proximity to public transportation options, provisions for encouraging multi-modal and energy efficient transit, such as by accommodating bicycle parking and EV chargers at or above regulatory requirements. Furthermore, related projects would be required to implement mitigation measures, as needed, if found to be in conflict with applicable provisions of the SCAG 2020-2045 RTP/SCS for the land use type.

**Since the Project would not conflict with the 2020-2045 RTP/SCS, the Project's contribution to cumulative impacts related to potentially significant environmental impacts due to conflicting with or obstruction of a State or local plan for transportation energy efficiency would not be would not be cumulatively considerable and, thus, would be less than significant.**

*(iv) Conclusion*

**Based on the analysis provided above, the Project's contribution to cumulative impacts related to conflicting with or obstruction of a State or local plan for renewable energy or energy efficiency would not be cumulatively considerable; therefore, cumulative energy impacts under Threshold (b) would be less than significant.**

**(2) Mitigation Measures**

Cumulative impacts with regard to energy use would be less than significant. Therefore, no mitigation measures are required.

**(3) Level of Significance After Mitigation**

Cumulative impacts during construction and operation would be less than significant without mitigation. When considered together with related projects, energy impacts would not result in a cumulatively considerable impact. Therefore, no mitigation measures were required or included, and the impact level remains less than significant.