

## **IV. Environmental Impact Analysis**

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### **J. Energy Conservation and Infrastructure**

#### **1. Introduction**

This section analyzes the Project’s potential impacts on energy resources, focusing on the following three energy resources: electricity, natural gas, and transportation-related energy (petroleum-based fuels). This section evaluates the demand for energy resources attributable to the Project during construction and operation and makes a determination regarding the Project’s use and conservation of energy resources. This section also demonstrates whether the current and planned electrical, natural gas, and petroleum-based fuel supplies and distribution systems are adequate to meet the Project’s forecasted energy consumption. The information presented herein is based, in part, on the *Energy Calculations for Modera Argyle Project* and the *Utility Infrastructure Technical Report: Water, Wastewater, Dry Utilities* (Utility Report) prepared by Kimley-Horn and Associates, Inc. (February 21, 2019), which are included as Appendices L and M of this Draft EIR, respectively.

#### **2. Environmental Setting**

##### **a. Regulatory Framework**

###### **(1) Federal**

###### *(a) Federal Corporate Average Fuel Economy (CAFE) Standards*

First established by the U.S. Congress in 1975, the Corporate Average Fuel Economy (CAFE) standards reduce energy consumption by increasing the fuel economy of cars and light trucks. The National Highway Traffic Safety Administration (NHTSA) and U.S. Environmental Protection Agency (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.<sup>1</sup>

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<sup>1</sup> For more information on the CAFE standards, refer to [www.nhtsa.gov/laws-regulations/corporate-average-fuel-economy](http://www.nhtsa.gov/laws-regulations/corporate-average-fuel-economy), accessed March 7, 2019.

*(b) Energy Independence and Security Act*

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

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

Additional provisions of EISA address energy savings in government and public institutions, promote research for alternative energy, additional research in carbon capture, international energy programs, and the creation of “green jobs.”<sup>2</sup>

**(2) State**

*(a) California Building Standards Code (Title 24)*

*(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 2016 Title 24 standards,

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<sup>2</sup> 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.

which became effective on January 1, 2017.<sup>3</sup> The 2016 Title 24 standards 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 2013 national standards.<sup>4</sup>

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

The California Green Building Standards Code (California Code of Regulations, Title 24, Part 11), commonly referred to as the CALGreen Code, most recently went into effect on January 1, 2017. The 2016 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>5</sup> Most mandatory measure changes, when compared to the previously applicable 2013 CALGreen Code, were related to the definitions and to the clarification or addition of referenced manuals, handbooks, and standards. For example, several definitions related to energy that were added or revised affect electric vehicle (EV) chargers and charging and hot water recirculation systems. For new multi-family dwelling units, the residential mandatory measures were revised to provide additional EV charging requirements, including quantity, location, size, single EV space, multiple EV spaces, and identification.<sup>6</sup> For nonresidential mandatory measures, the table (Table 5.106.5.3.3) identifying the number of required EV charging spaces has been revised in its entirety.<sup>7</sup>

*(b) California's Renewable Portfolio Standard*

First established in 2002 under Senate Bill (SB) 1078, California's Renewable Portfolio Standards (RPS) require retail sellers of electric services to increase procurement from eligible renewable energy resources to 33 percent of total retail sales by 2020.<sup>8</sup> The

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<sup>3</sup> CEC, *2016 Building Energy Efficiency Standards*, [www.energy.ca.gov/title24/2016standards/](http://www.energy.ca.gov/title24/2016standards/), accessed January 3, 2019.

<sup>4</sup> CEC, *2016 Building Energy Efficiency Standards for Residential and Nonresidential Buildings*, June 2015.

<sup>5</sup> California Building Standards Commission, *Guide to the 2016 California Green Building Standards Code Nonresidential*, January 2017.

<sup>6</sup> California Building Standards Commission, *2016 California Green Building Standards Code, California Code of Regulations, Title 24, Part 11, Chapter 4—Residential Mandatory Measures*, effective January 1, 2017.

<sup>7</sup> California Building Standards Commission, *2016 California Green Building Standards Code, California Code of Regulations, Title 24, Part 11, Chapter 5—Nonresidential Mandatory Measures*, effective January 1, 2017.

<sup>8</sup> CPUC, *California Renewables Portfolio Standard (RPS)*, [www.cpuc.ca.gov/RPS\\_Homepage/](http://www.cpuc.ca.gov/RPS_Homepage/), accessed January 3, 2019.

California Public Utilities Commission (CPUC) and the California Energy Commission (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>9</sup> The CEC's responsibilities include: (1) certifying renewable facilities as eligible for the RPS; and (2) designing and implementing a tracking and verification system to ensure that renewable energy output is counted only once for the purpose of the RPS and verifying retail product claims in California or other states.

*(c) Senate Bill 350*

SB 350, signed October 7, 2015, is the Clean Energy and Pollution Reduction Act of 2015. SB 350 is the implementation of some of the goals of Executive Order B-30-15, issued in April 2015, which established a new statewide policy goal to reduce greenhouse gas (GHG) emissions 40 percent below their 1990 levels by 2030. The 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 efficiency savings in electricity and natural gas final end uses of retail customers through energy efficiency and conservation.<sup>10</sup>

*(d) Senate Bill 100*

Senate Bill (SB) 100, signed September 10, 2018, is the 100 Percent Clean Energy Act of 2018. SB 100 updates the goals of California's Renewable Portfolio Standard and SB 350, as discussed above, to the following: achieve a 50-percent renewable resources target by December 31, 2026, and achieve a 60-percent target by December 31, 2030. SB 100 also requires that eligible renewable energy resources and zero-carbon resources supply 100 percent of retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all state agencies by December 31, 2045.<sup>11</sup>

*(e) Assembly Bill 32*

As discussed in Section IV.C, Greenhouse Gas Emissions, of this Draft EIR, Assembly Bill (AB) 32 (Health and Safety Code Sections 38500–38599), also known as the California Global Warming Solutions Act of 2006, commits the State to achieving year 2000

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<sup>9</sup> CPUC, *California Renewables Portfolio Standard (RPS)*, [www.cpuc.ca.gov/RPS\\_Homepage/](http://www.cpuc.ca.gov/RPS_Homepage/), accessed January 3, 2019.

<sup>10</sup> *Senate Bill 350 (2015–2016) Reg. Session Stats 2015, ch. 547.*

<sup>11</sup> *Senate Bill 100 (2017–2018) Reg. Session Stats 2018, ch. 312.*

GHG emission levels by 2010 and year 1990 levels by 2020. To achieve these goals, AB 32 tasked the CPUC and the CEC with providing information, analysis, and recommendations to the California Air Resources Board (CARB) regarding ways to reduce GHG emissions in the electricity and natural gas utility sectors.

*(f) Assembly Bill 1493/Pavley Regulations*

AB 1493 (commonly referred to as CARB's Pavley regulations) was the first legislation to regulate GHG emissions from new passenger vehicles. Under this legislation, CARB adopted regulations to reduce GHG emissions from non-commercial passenger vehicles (cars and light-duty trucks) for model years 2009–2016.<sup>12</sup> It was expected that the Pavley regulations would reduce GHG emissions from California's passenger vehicles by about 30 percent in 2016, while improving fuel efficiency and reducing motorists' costs.<sup>13</sup>

*(g) California Air Resources Board*

*(i) CARB's Advanced Clean Cars Program*

Closely associated with the Pavley regulations, the Advanced Clean Cars emissions-control program was approved by CARB in 2012.<sup>14</sup> The program combines the control of smog, soot, and GHGs with requirements for greater numbers of zero-emission vehicles for model years 2015–2025.<sup>15</sup> The components of the Advanced Clean Cars program include the Low-Emission Vehicle (LEV) regulations that reduce criteria pollutants and GHG emissions from light- and medium-duty vehicles, and the Zero-Emission Vehicle (ZEV) regulation, which requires manufacturers to produce an increasing number of pure ZEVs (meaning battery electric and fuel cell electric vehicles), with provisions to also produce plug-in hybrid electric vehicles (PHEV) in the 2018 through 2025 model years.<sup>16</sup> In March 2017, CARB voted unanimously to continue with the vehicle greenhouse gas emission standards and the ZEV program for cars and light trucks sold in California through 2025.<sup>17</sup>

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<sup>12</sup> CARB, *Clean Car Standards—Pavley, Assembly Bill 1493*, [www.arb.ca.gov/cc/ccms/ccms.htm](http://www.arb.ca.gov/cc/ccms/ccms.htm), last reviewed January 11, 2017.

<sup>13</sup> CARB, *Clean Car Standards—Pavley, Assembly Bill 1493*, [www.arb.ca.gov/cc/ccms/ccms.htm](http://www.arb.ca.gov/cc/ccms/ccms.htm), last reviewed January 11, 2017.

<sup>14</sup> CARB, *California's Advanced Clean Cars Program*, [www.arb.ca.gov/msprog/acc/acc\\_conceptdraft.htm](http://www.arb.ca.gov/msprog/acc/acc_conceptdraft.htm), last reviewed by CARB September 1, 2017.

<sup>15</sup> CARB, *California's Advanced Clean Cars Program*, [www.arb.ca.gov/msprog/acc/acc.htm](http://www.arb.ca.gov/msprog/acc/acc.htm), last reviewed by CARB January 18, 2017.

<sup>16</sup> CARB, *California's Advanced Clean Cars Program*, [www.arb.ca.gov/msprog/acc/acc\\_conceptdraft.htm](http://www.arb.ca.gov/msprog/acc/acc_conceptdraft.htm), last reviewed by CARB September 1, 2017.

<sup>17</sup> CARB, *News Release: CARB finds vehicle standards are achievable and cost-effective*, [ww2.arb.ca.gov/news/carb-finds-vehicle-standards-are-achievable-and-cost-effective](http://ww2.arb.ca.gov/news/carb-finds-vehicle-standards-are-achievable-and-cost-effective), accessed March 7, 2019.

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

The Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling (Title 13, CCR, Division 3, Chapter 10, Section 2435) was adopted to reduce public exposure to diesel particulate matter and other air contaminants by limiting the idling of diesel-fueled commercial motor vehicles. This section applies to diesel-fueled commercial motor vehicles with gross vehicular weight ratings of greater than 10,000 pounds that are or must be licensed for operation on highways. Reducing idling of diesel-fueled commercial motor vehicles reduces the amount of petroleum-based fuel used by the vehicle.

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

The Sustainable Communities and Climate Protection Act of 2008, or SB 375, coordinates land use planning, regional transportation plans, and funding priorities to help California meet the GHG reduction mandates established in AB 32. SB 375 specifically requires each Metropolitan Planning Organization (MPO) to prepare a “sustainable communities strategy” (SCS) as a part of its Regional Transportation Plan (RTP), that will achieve GHG emission reduction targets set by CARB for the years 2020 and 2035 by reducing vehicle-miles traveled (VMT) from light-duty vehicles through the development of more compact, complete, and efficient communities.<sup>18</sup>

The Project Site is located within the planning jurisdiction of the Southern California Association of Governments (SCAG). SCAG’s first-ever SCS was included in the 2012–2035 Regional Transportation Plan/Sustainable Communities Strategy (2012–2035 RTP/SCS), which was adopted by SCAG in April 2012. The goals and policies of the SCS that reduce VMT (and result in corresponding decreases in transportation-related fuel consumption) focus on transportation and land use planning that include building infill projects, locating residents closer to where they work and play, and designing communities so there is access to high quality transit service. Specific goals include, actively encourage and create incentives for energy efficiency, where possible (Goal 7) and encourage land use and growth patterns that facilitate transit and active transportation (Goal 8). These goals would serve to reduce transportation fuel usage. SCAG has since adopted the 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy (2016 RTP/SCS).<sup>19</sup> The goals and policies of the 2016 RTP/SCS are substantially the same as those in the 2012–2035 RTP/SCS. See further discussion below.

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<sup>18</sup> California State Legislature, *SB 375 Transportation planning: travel demand models: sustainable communities strategy, environmental review*, [https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill\\_id=200720080SB375](https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=200720080SB375), accessed January 15, 2019.

<sup>19</sup> SCAG, *2016–2040 Regional Transportation Plan/Sustainable Communities Strategy*, dated April 2016.

(i) *Assembly Bill 758*

AB 758 requires the CEC to develop a comprehensive program to achieve greater energy efficiency in the state's existing buildings. As part of the requirements of AB 758, the AB 758 Action Plan was released March 2015 and provides a 10-year roadmap that would result in accelerated growth of energy efficiency markets, more effective targeting and delivery of building upgrade services, improved quality of occupant and investor decisions, and vastly improved performance of California's buildings in service of those who own and occupy them. The AB 758 Action Plan provides a comprehensive framework centered on five goals, each with an objective and a series of strategies to achieve it.

(j) *Senate Bill 1389*

SB 1389 (Public Resources Code [PRC] Sections 25300–25323) requires the development of an integrated plan for electricity, natural gas, and transportation fuels. The CEC must adopt and transmit to the Governor and Legislature an Integrated Energy Policy Report every two years. The most recently completed report, the 2016 Integrated Energy Policy Report Update, addresses a variety of issues including the environmental performance of the electricity generation system, landscaped-scale planning, the response to the gas leak at the Aliso Canyon natural gas storage facility, transportation fuel supply reliability issues, update on the Southern California electricity reliability, methane leakage, climate adaptation activities for the energy sector, climate and sea level rise scenarios, and the *California Energy Demand Forecast*.<sup>20</sup>

(k) *California Environmental Quality Act*

In accordance with CEQA and Appendix F, Energy Conservation, of the CEQA Guidelines, in order to assure that energy implications are considered in project decisions, EIRs are required to include a discussion of the potential significant energy impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy (PRC Section 21100(b)(3)). Appendix F of the CEQA Guidelines provides a list of energy-related items that may be included throughout the various chapters of an EIR. In addition, while not described or required as significance thresholds for determining the significance of impacts related to energy, Appendix F provides the following topics that the lead agency may consider in the discussion of energy use in an EIR, where topics are applicable or relevant to the project:

- The project's energy requirements and its energy use efficiencies by amount and fuel type for each stage of the project including construction, operation,

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<sup>20</sup> CEC, *2016 Integrated Energy Policy Report Update*, docketed February 28, 2017.

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 alternatives.

### (3) Regional

As discussed in Section IV.D, Land Use, of this Draft EIR, SCAG's 2016 RTP/SCS presents a long-term transportation vision through the year 2040 for the six-county region of Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura Counties. On April 7, 2016, the SCAG Regional Council adopted the 2016 RTP/SCS, the mission of which is "leadership, vision and progress which promote economic growth, personal well-being, and livable communities for all Southern Californians."<sup>21</sup> The 2016 RTP/SCS includes land use strategies that focus on urban infill growth and walkable, mixed-use communities in existing urbanized and opportunity areas. More mixed-use, walkable, and urban infill development would be expected to accommodate a higher proportion of growth in more energy-efficient housing types like townhomes, apartments, and smaller single-family homes, as well as more compact commercial building types. Furthermore, the 2016 RTP/SCS includes transportation investments and land use strategies that encourage carpooling, increase transit use, active transportation opportunities, and promoting more walkable and mixed-use communities, which would potentially help to reduce VMT.

The 2016 RTP/SCS also establishes High-Quality Transit Areas (HQTA), which are described as generally walkable transit villages or corridors that are within 0.5 mile of a well-serviced transit stop or a transit corridor with 15-minute or less service frequency during peak commute hours.<sup>22</sup> Local jurisdictions are encouraged to focus

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<sup>21</sup> SCAG, 2016–2040 RTP/SCS.

<sup>22</sup> SCAG, 2016–2040 RTP/SCS, p. 8.



housing and employment growth within HQTAs to reduce VMT. The Project Site is located within an HQTA as designated by the 2016 RTP/SCS.<sup>23</sup>

#### (4) Local

##### *(a) City of Los Angeles Green LA Action Plan/ClimateLA*

Green LA: An Action Plan to Lead the Nation in Fighting Global Warming (LA Green Plan), released in May 2007, sets forth a goal of reducing the City's GHG emissions to 35 percent below 1990 levels by the year 2030.<sup>24</sup> Climate LA is the implementation program that provides detailed information about each action item discussed in the LA Green Plan framework. Climate LA includes focus areas addressing environmental issues including but not limited to energy, water, transportation, and waste.<sup>25</sup> The energy focus area includes action items with measures that aim to increase the use of renewable energy to 35 percent by 2020, reduce the use of coal-fired power plants, and present a comprehensive set of green building policies to guide and support private sector development.<sup>26</sup>

In 2008, the City released an implementation program for the LA Green Plan referred to as ClimateLA, which provides detailed information about each action item discussed in the LA Green Plan framework.<sup>27</sup> Action items range from harnessing wind power for electricity production and energy efficiency retrofits in City buildings, to converting the City's fleet vehicles to cleaner and more efficient models, as well as reducing water consumption. ClimateLA is a living document, reflecting a process of ongoing learning and continuous improvement as technology advances and City departments develop expertise in the methods of lowering GHG emissions.

##### *(b) City of Los Angeles Green Building Code*

On December 20, 2016, the Los Angeles City Council approved Ordinance No. 184,692, which amended Chapter IX of the Los Angeles Municipal Code (LAMC), referred to as the "Los Angeles Green Building Code," by amending certain provisions of Article 9 to reflect local administrative changes and incorporating by reference portions of the 2016 CALGreen Code. Projects filed on or after January 1, 2017, must comply with the

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<sup>23</sup> SCAG, 2016–2040 RTP/SCS; Exhibit 5.1: High Quality Transit Areas in the SCAG Region for 2040 Plan, p. 77.

<sup>24</sup> City of Los Angeles, Green LA: An Action Plan to Lead the Nation In Fighting Global Warming, May 2007.

<sup>25</sup> City of Los Angeles, Climate LA: Municipal Program Implementing the GreenLA Climate Action Plan, 2008.

<sup>26</sup> City of Los Angeles, Climate LA: Municipal Program Implementing the GreenLA Climate Action Plan, 2008.

<sup>27</sup> City of Los Angeles, ClimateLA: Municipal Program Implementing the GreenLA Climate Action Plan,, 2008.

provisions of the Los Angeles Green Building Code. Specific mandatory requirements and elective measures are provided for three categories: (1) low-rise residential buildings; (2) nonresidential and high-rise residential buildings; and (3) additions and alterations to nonresidential and high-rise residential buildings. Article 9, Division 5 includes mandatory measures for newly constructed nonresidential and high-rise residential buildings.

## **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, including substations and transformers that lower transmission line power (voltage) to a level appropriate for on-site distribution and use. The electricity generated is distributed through a network of transmission and distribution lines commonly called a power grid. Conveyance of electricity through transmission lines is typically responsive to market demands.

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 1 hour would be 100 Wh. If ten 100 W bulbs were on for 1 hour, the energy required would be 1,000 Wh or 1 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 of Los Angeles and many areas of the Owens Valley, serving approximately 4 million people within a service area of approximately 465 square miles, excluding the Owens Valley. Electrical service provided by the 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 Resources Plan, the

LADWP has a net dependable generation capacity greater than 7,531 MW.<sup>28</sup> In 2017, the LADWP power system experienced an instantaneous peak demand of 6,432 MW.<sup>29</sup> Approximately 30 percent of LADWP's 2017 electricity purchases were from renewable sources, which is similar to the 29-percent statewide percentage of electricity purchases from renewable sources.<sup>30</sup>

LADWP supplies electrical power to the Project Site from electrical service lines located in the Project vicinity. According to the Utility Report, there is one 2 inch electrical line and four 4 inch electric lines located within Selma Avenue to the west of the Project Site. Existing electricity usage was estimated based on the same methodology contained in the GHG analysis included in Section IV.E, Greenhouse Gas Emissions, of this Draft EIR. It is estimated that existing uses on the Project Site currently consume approximately 682,854 kWh of electricity per year.<sup>31</sup>

## (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, mainly located outside the State, and delivered through high-pressure transmission pipelines. The natural gas transportation system is a nationwide network, and, therefore, resource availability is typically not an issue. Natural gas provides almost one-third of the state's total energy requirements and is used in electricity generation, space heating, cooking, water heating, industrial processes, and as a transportation fuel. Natural gas is measured in terms of cubic feet (cf).

Natural gas is provided to the Project Site by the Southern California Gas Company (SoCalGas). SoCalGas is the principal distributor of natural gas in Southern California, serving residential, commercial, and industrial markets. SoCalGas serves approximately 21.4 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>32</sup>

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<sup>28</sup> LADWP, *2017 Power Strategic Long-Term Resources Plan, December 2017*.

<sup>29</sup> LADWP, *2017 Retail Electric Sales and Demand Forecast, p. 6*.

<sup>30</sup> California Energy Commission, *Utility Annual Power Content Labels for 2017*, [www.energy.ca.gov/pcl/labels/](http://www.energy.ca.gov/pcl/labels/), accessed March 7, 2019.

<sup>31</sup> Eyestone Environmental, *Energy Calculations for Modera Argyle Project, See Appendix M of this Draft EIR*.

<sup>32</sup> SoCalGas, *Company Profile*, [www.socalgas.com/about-us/company-info.shtml](http://www.socalgas.com/about-us/company-info.shtml), accessed January 3, 2019.

SoCalGas receives gas supplies from several sedimentary basins in the western United States 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>33</sup> The traditional, southwestern United States 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>34</sup> Gas supply available to SoCalGas from California sources averaged 323 million cf per day in 2017 (the most recent year for which data are available).<sup>35</sup>

SoCalGas supplies natural gas to the Project Site from natural gas service lines located in the Project vicinity. According to the Utility Report, SoCalGas operates a 2-inch gas line along Argyle Avenue and a 2-inch gas line along a portion of Selma Avenue. It is estimated that existing uses on the Project Site currently consume approximately 236,460 cf of natural gas per year.<sup>36</sup>

### (3) Transportation Energy

According to the CEC, transportation accounts for nearly 37 percent of California's total energy consumption in 2014.<sup>37</sup> In 2016, California consumed 15.5 billion gallons of gasoline and 3.0 billion gallons of diesel fuel.<sup>38, 39</sup> Petroleum-based fuels currently account for 90 percent of California's transportation energy sources.<sup>40</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.<sup>41</sup> The CEC predicts that the demand for gasoline will continue to

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<sup>33</sup> *California Gas and Electric Utilities, 2018 California Gas Report, pp. 80.*

<sup>34</sup> *California Gas and Electric Utilities, 2018 California Gas Report, pp. 80.*

<sup>35</sup> *California Gas and Electric Utilities, 2018 California Gas Report, pp. 80.*

<sup>36</sup> *Eyestone Environmental, Energy Calculations for Modera Argyle Project, See Appendix M of this Draft EIR.*

<sup>37</sup> *CEC, 2016 Integrated Energy Policy Report, docketed January 18, 2017, p. 4.*

<sup>38</sup> *California Board of Equalization, Net Taxable Gasoline Gallons 10-Year Report.*

<sup>39</sup> *California Board of Equalization, Net Taxable Diesel Gallons 10-Year Report.*

<sup>40</sup> *CEC, 2016–2017 Investment Plan Update for the Alternative and Renewable Fuel and Vehicle Technology Program, March 2016.*

<sup>41</sup> *State Board of Equalization, Economic Perspective, Discussion of Recent Economic Developments, Publication 329, Volume XIX, Number 1, February 2013.*

decline over the next 10 years, and there will be an increase in the use of alternative fuels.<sup>42</sup> According to CARB's EMFAC Web Database, Los Angeles County on-road transportation sources consumed 3.99 billion gallons of gasoline and 1.23 billion gallons of diesel fuel in 2018.<sup>43</sup>

The existing on-site land uses currently generate a demand for transportation-related fuel use as a result of vehicle trips to and from the Project Site. The estimate of annual VMT associated with the existing Project Site uses is 551,714 VMT per year.<sup>44</sup> This translates to 27,650 gallons of gasoline and 5,001 gallons of diesel per year.<sup>45</sup> Persons traveling to and from the Project Site also have the option of using public transportation to reduce transportation-related fuel use. Specifically, two transit service providers operate lines within the Project Site area, including Metro and Los Angeles Department of Transportation Downtown Area Shuttle (DASH). As discussed in Section IV.G, Transportation, of this Draft EIR, the Project Site is located less than 0.5 mile from the Metro Red Line Hollywood and Vine rail station, as well as 11 bus lines. For further discussion of public transit lines that serve the Project area, refer to Section IV.G, Transportation, of this Draft EIR.

### 3. Project Impacts

This analysis addresses the Project's potential energy usage, including electricity, natural gas, and transportation fuel. Energy consumption during both construction and operation is assessed. The Project's estimated energy consumption was calculated using the California Emissions Estimator Model (CalEEMod) Version 2016.3.2. Specific analysis methodologies are discussed below.

#### a. Thresholds of Significance

In accordance with Appendix G of the State CEQA Guidelines, the Project would have a significant impact related to energy if it would:<sup>46</sup>

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<sup>42</sup> CEC, 2015 Integrated Energy Policy Report, docketed June 29, 2016, p. 113.

<sup>43</sup> California Air Resources Board, EMFAC2014 Web Database, [www.arb.ca.gov/emfac/2014/](http://www.arb.ca.gov/emfac/2014/), accessed March 7, 2019.

<sup>44</sup> Eystone Environmental, Energy Calculations for Modera Argyle Project, See Appendix M of this Draft EIR.

<sup>45</sup> Eystone Environmental, Energy Calculations for Modera Argyle Project, See Appendix M of this Draft EIR.

<sup>46</sup> Subsequent to the publication of the Notice of Preparation for this Project on August 18, 2017, the California Natural Resources Agency recently adopted revisions to the CEQA Guidelines that became effective on December 28, 2018. The adopted revisions include energy as a separate subsection. In (Footnote continued on next page)

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

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

With regard to Threshold (a), this analysis relies upon Appendix F of the CEQA Guidelines as well as the *L.A. CEQA Thresholds Guide*. Appendix F of the CEQA Guidelines was prepared in response to the requirement in PRC Section 21100(b)(3), which states 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 impacts to energy, the *L.A. CEQA Thresholds Guide* states that a determination of significance shall be made on a case-by case basis, considering the following factors:

- The extent to which the project would require new (off-site) energy supply facilities and distribution infrastructure; or capacity-enhancing alterations to existing facilities;
- Whether and when the needed infrastructure was anticipated by adopted plans; and
- 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 criteria will be considered in determining whether this threshold of significance is met:

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;
2. The effects of the project on local and regional energy supplies and on requirements for additional capacity;

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*addition, Checklist Question XIX.a was reworded to include analysis for facilities of electric power and natural gas.*

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.
7. The degree to which the project design and/or operations incorporate energy-conservation measures, particularly those that go beyond City requirements.
8. Whether the Project conflicts with adopted energy conservation plans.

With regard to Threshold (b), the Project will be 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 and City building codes. Also, as discussed in Section IV.D, Greenhouse Gas Emissions, of this Draft EIR, the Project would also be consistent with the SCAG RTP/SCS which includes goals to reduce VMT and corresponding decrease in fuel consumption.

Appendix G of the State CEQA Guidelines also includes a new threshold question regarding electric power and natural gas facilities. Specifically, the threshold question states:

***Threshold (c): Require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?***

The analysis for Threshold (c) included below will focus on the electric power and natural gas components of this threshold question. The other components of this threshold question have been addressed elsewhere in this Draft EIR, including Section IV.I.1, Utilities and Service Systems—Water Supply and Infrastructure; Section IV.I.2, Utilities and Service Systems—Wastewater; and Section VI, Other CEQA Considerations.

## b. Methodology

### (1) Construction

During Project construction, energy would be consumed in the form of electricity associated with the conveyance of water used for dust control (including supply and conveyance) and, on a limited basis, powering lights, electronic equipment, or other construction activities necessitating electrical power. Electricity usage associated with the supply and conveyance of water used for dust control during construction (primarily related to the excavation period) was calculated using CalEEMod.<sup>47</sup> Electricity used to power lighting, electronic equipment, and other construction activities necessitating electrical power was calculated based on data provided in South Coast Air Quality Management District (SCAQMD) construction surveys (i.e., construction activity, horsepower, load factor, and hours of use per day).<sup>48</sup> The SCAQMD construction surveys identified the use of diesel generators to supply construction sites with electrical power. As SCAQMD recommends use of electricity from LADWP instead of diesel generators and pursuant to Project Design Feature NOI-PDF-2, the Project would not include the use of diesel generators, the equivalent use of electrical power was calculated for the Project.

In terms of natural gas, construction activities typically do not involve the consumption of natural gas.

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 worker travel and from the project site, and delivery and haul truck trips (e.g., the hauling of demolition material to off-site reuse and disposal facilities). 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 M of this Draft EIR. The total horsepower was then multiplied by fuel usage estimates per horsepower-hour included in Table A9-3-E of the SCAQMD *CEQA Air Quality Handbook*. Fuel consumption from construction worker, vendor, and delivery/haul trucks was calculated using the trip rates and distances provided in the CalEEMod construction output files. Total VMT was then calculated for each type of construction-related trip and divided by the corresponding county-specific miles per gallon factor using CARB's EMFAC 2014 model (EMFAC2014). EMFAC provides the total annual VMT and fuel consumed for each vehicle type. Consistent with CalEEMod, construction worker trips were assumed to include 50 percent light duty gasoline auto and 50 percent light duty

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<sup>47</sup> *California Air Pollution Control Officers Association, CalEEMod™ version 2016.3.2 User's Guide, November 2017.*

<sup>48</sup> *CalEEMod Users Guide. Appendix E1, Technical Source Documentation. October 2017.*



gasoline trucks. Construction vendor and delivery/haul trucks were assumed to be heavy-duty diesel trucks. Refer to Appendix M of this Draft EIR for detailed calculations.

## (2) Operation

Annual consumption of electricity (including electricity usage associated with the supply and conveyance of water) and natural gas was calculated using demand factors provided in CalEEMod as part of the GHG analysis included in Section IV.C, Greenhouse Gas Emissions, of this Draft EIR. Energy impacts associated with transportation during operation were also assessed. Daily trip generation used in this analysis was based on the *Transportation Impact Study for the Modera Argyle Project* dated March 2018 (Traffic Study), prepared by Gibson Transportation Consulting, Inc. (see Appendix K.1 of this Draft EIR). As discussed therein, the trip generation for the Project was determined based on the Institute of Transportation Engineers trip generation factors for the applicable land uses. The daily Project-related trips were then input into CalEEMod, which calculated the annual VMT. The resulting annual VMT was used as part of the GHG analysis included in Section IV.C, Greenhouse Gas Emissions, of this Draft EIR. Based on this annual VMT, gasoline and diesel consumption rates were calculated using the county-specific miles per gallon calculated using EMFAC2014. The vehicle fleet mix for vehicles anticipated to visit the Project Site was calculated consistent with the CalEEMod default for Los Angeles County. Supporting calculations are provided in Appendix M of this Draft EIR. These calculations were used to determine if the Project causes the wasteful, inefficient and/or unnecessary consumption of energy as required by Appendix F guidelines.

The Project's estimated energy demands were also analyzed relative to LADWP's and SoCalGas' existing and planned energy supplies in 2023 (i.e., the Project buildout year) to determine if these two energy utility companies would be able to meet the Project's energy demands. Finally, the capacity of local infrastructure to accommodate the Project's estimated electricity and natural gas demand was assessed based on the Utility Report, included as Appendix L of this Draft EIR.

## c. Analysis of Project Impacts

### (1) Project Design Features

The Project would include project design features designed to improve energy efficiency as set forth in Section IV.C, Greenhouse Gas Emissions and Section IV.I.1, Utilities and Service Systems—Water Supply and Infrastructure.

## (2) Project Impacts

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

The following analysis considers the eight criteria identified in the Thresholds of Significance subsection above to determine whether Threshold (a) would be exceeded.

*(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;*

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 such as diesel and gasoline. The analysis below includes the Project's energy requirements and energy use efficiencies by fuel type for each stage of the Project (construction, operations, maintenance and removal activities).<sup>49</sup>

For 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 of the structures constructed under this Project 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 associated with the conveyance of water used for dust control and, on a limited basis, powering lights, electronic equipment, or other construction activities necessitating electrical power. As discussed below, construction activities, including the construction of new buildings and facilities, typically do not involve the consumption of natural gas. 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 worker travel 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).

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<sup>49</sup> *Removal activities relate to the life of a project.*

As shown in Table IV.J-1 on page IV.J-20, a total of 27,632 kWh of electricity, 29,604 gallons of gasoline, and 205,265 gallons of diesel is estimated to be consumed during Project construction. Project construction is expected to be completed by 2023.

### Electricity

During construction of the Project, electricity would be consumed to supply and convey water for dust control and, on a limited basis, may be used to power lighting, electronic equipment, and other construction activities necessitating electrical power. 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 would be 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 pursuant to Project Design Feature NOI-PDF-2.

As shown in Table IV.J-1, a total of approximately 27,632 kWh of electricity is anticipated to be consumed during Project construction. 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. 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 site and staging areas would also comply with applicable Title 24 requirements which includes limits on the wattage allowed per specific area, which result in the conservation of energy.<sup>50</sup> As such, the demand for electricity during construction would not cause wasteful, inefficient, and unnecessary use of energy.

The estimated construction electricity usage represents approximately 1.6 percent of the estimated net annual operational demand which, as discussed below, would be within the supply and infrastructure service capabilities of LADWP.<sup>51</sup> Moreover, construction electricity usage would replace the existing electricity usage at the Project Site. Construction electricity usage is also less than the existing electricity demand on the Project Site.

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<sup>50</sup> *California Building Energy Efficiency Standards, Title 24, Part 6, §110.9, §130.0, and §130.2.*

<sup>51</sup> *The percentage is derived by taking the total amount of electricity usage during construction (27,632 kWh) and dividing that number by the total amount of net electricity usage during operation (1,725,539 kWh) to arrive at 1.6 percent.*

**Table IV.J-1  
Summary of Energy Use During Project Construction<sup>a</sup>**

Fuel Type	Quantity
<b>Electricity</b>	
Water Consumption	6,263 kWh
Lighting, electronic equipment, and other construction activities necessitating electrical power <sup>b</sup>	21,370
<b>Total Electricity</b>	<b>27,632 kWh</b>
<b>Gasoline</b>	
On-Road Construction Equipment	29,604 gallons
Off-Road Construction Equipment	0 gallons
<b>Total Gasoline</b>	<b>29,604 gallons</b>
<b>Diesel</b>	
On-Road Construction Equipment	149,533 gallons
Off-Road Construction Equipment	55,732 gallons
<b>Total Diesel</b>	<b>205,265 gallons</b>
<hr/> <i>kWh = kilowatt hours</i> <sup>a</sup> Detailed calculations are provided in Appendix M of this Draft EIR. <sup>b</sup> Electricity usage is based on SCAQMD construction site survey data and typical requirements for power generators. Such electricity demand would be temporary, limited, and would cease upon the completion of construction. Source: Eyestone Environmental, 2019.	

### Natural Gas

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.

### Transportation Energy

The petroleum-based fuel use summary provided above in Table IV.J-1 represents the amount of transportation energy that could potentially be consumed during Project construction based on a conservative set of assumptions, provided in Appendix M, of this Draft EIR. As shown, on- and off-road vehicles would consume an estimated 29,604 gallons of gasoline and approximately 205,265 gallons of diesel fuel throughout the Project's construction. For comparison purposes, the fuel usage during Project construction would represent approximately 0.001 percent of the 2016 annual on-road gasoline-related energy consumption and 0.03 percent of the 2016 annual diesel

fuel-related energy consumption in Los Angeles County, as shown in Appendix M, of this Draft EIR.

Trucks and equipment used during proposed construction activities would comply with CARB's anti-idling regulations as well as the In-Use Off-Road Diesel-Fueled Fleets regulation. In addition to reducing criteria pollutant emissions, compliance with the anti-idling and emissions regulations would also result in efficient use of construction-related energy and reduce fuel consumption. In addition, on-road vehicles (i.e., haul trucks, worker vehicles) would be subject to Federal fuel efficiency requirements. Therefore, Project construction activities would comply with existing energy standards with regard to transportation fuel consumption. As such, the demand for petroleum-based fuel during construction would not cause wasteful, inefficient, and unnecessary use of energy.

### *(ii) Operation*

During operation of the Project<sup>52</sup>, energy would be consumed for multiple purposes, including, but not limited to, heating/ventilating/air conditioning (HVAC); refrigeration; lighting; and the use of electronics, equipment, and machinery. Energy would also be consumed during Project operations related to water usage, solid waste disposal, and vehicle trips. As shown in Table IV.J-2 on page IV.J-22, the Project's net new energy demand would be approximately 1,725,539 kWh of electricity per year, 5,319,230 cf of natural gas per year, 109,753 gallons of gasoline per year, and 19,851 gallons of diesel fuel per year.

### Electricity

As shown in Table IV.J-2, with compliance with 2016 CALGreen requirements, buildout of the Project would result in a projected net increase in the on-site demand for electricity totaling approximately 1,725,539 kWh per year. In addition to complying with CALGreen, the Project Applicant would also implement GHG-PDF-1 in Section IV.C, Greenhouse Gas Emissions, of this Draft EIR, which states that the design of new buildings would include features so as to be capable of meeting the standards of LEED® Certified or equivalent green building standards, which includes exceeding Title 24 by 10 percent; and Project Design Feature WAT-PDF-1, presented in Section IV.I.1, Utilities and Service Systems—Water Supply and Infrastructure, of this Draft EIR, which states that the Project would incorporate water conservation features, such as dual-flush water closets, residential bathroom faucets with a maximum flow rate of 1.0 gallon per minute and non-residential restroom faucets with a maximum flow rate of 0.5 gallons per minute, among others.

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<sup>52</sup> For purposes of this analysis, the Project's proposed retail and restaurant option was analyzed, as it is the more conservative option due to greater number of mobile trips.

**Table IV.J-2  
Summary of Annual Net New Energy Use During Project Operation<sup>a</sup>**

Source	Estimated Energy Demand <sup>b</sup>
<b>Electricity<sup>c</sup></b>	
Building	1,489,408 kWh
Water <sup>d</sup>	236,131 kWh
<b>Total Electricity</b>	<b>1,725,539 kWh</b>
<b>Natural Gas</b>	
Building	5,319,230 cf
<b>Total Natural Gas</b>	<b>5,319,230 cf</b>
<b>Transportation</b>	
Gasoline	109,753 gallons
Diesel	19,851 gallons
<b>Total Transportation</b>	<b>129,604 gallons</b>
<p><i>kWh = kilowatt hours</i>  <i>cf = cubic feet</i>  <sup>a</sup> Detailed calculations are provided in Appendix M of this Draft EIR.  <sup>b</sup> Electricity and natural gas estimates assume compliance with applicable 2016 CALGreen requirements and implementation of GHG-PDF-1 (specific mandatory requirements of achieving LEED® Certified or equivalent, which includes exceeding Title 24 by 10 percent), in Section IV.C, Greenhouse Gas Emissions, of this Draft EIR. Transportation fuel estimates include project characteristics consistent with CAPCOA guidance measures.  <sup>c</sup> GHG-PDF-3, discussed further in Section IV.C, Greenhouse Gas Emissions, states that that the Project would provide at least 20 percent of code-required parking spaces wired for EV ready charging stations and GHG-PDF-4 states that the Project would provide 5 percent of the code-required parking spaces with EV charging stations. Providing infrastructure for EV in itself does not result in additional electricity usage. These project design features were not included in the electricity calculation for the Project electricity usage.  <sup>d</sup> Calculations assume compliance with Project Design Feature WAT-PDF-1.  Source: Eyestone Environmental, 2019.</p>	

These measures would further reduce the Project's energy demand. In addition, LADWP is required to procure at least 33 percent of their energy portfolio from renewable sources by 2020. The current sources procured by LADWP include wind, solar, and geothermal sources. These sources account for 30 percent of LADWP's overall energy mix in 2017, the most recent year for which data are available.<sup>53</sup> This represents the available off-site renewable sources of energy that would meet the Project's energy demand. Furthermore, the Project would comply with Section 110.10 of Title 24, which includes mandatory

<sup>53</sup> California Energy Commission, *Utility Annual Power Content Labels for 2017*, [www.energy.ca.gov/pcl/labels/](http://www.energy.ca.gov/pcl/labels/), accessed March 7, 2019.

requirements for solar-ready buildings, and, as such, would not preclude the potential use of alternate fuels.

Based on LADWP's 2017 Power Strategic Long-Term Resources Plan, LADWP forecasts that its total energy sales in the 2023–2024 fiscal year (the Project's buildout year) will be 23,033 GWh of electricity.<sup>54,55</sup> As such, the Project-related net increase in annual electricity consumption of 1,725,539 kWh per year would represent less than 0.01 percent of LADWP's projected sales in 2023. In addition, as previously described, the Project would incorporate a variety of energy conservation measures to reduce energy usage.

### Natural Gas

As provided in Table IV.J-2 on page IV.J-22, with compliance with 2016 Title 24 standards and applicable 2016 CALGreen requirements, buildout of the Project is projected to generate a net increase in the on-site demand for natural gas totaling approximately 5,319,230 cf per year. As discussed above, in addition to complying with applicable regulatory requirements regarding energy conservation (e.g., California Building Energy Efficiency Standards and CALGreen), the Project would implement project design features to further reduce energy use. The Project Applicant would implement GHG-PDF-1 in Section IV.C, Greenhouse Gas Emissions, of this Draft EIR, which states that the design of new buildings would include features so as to be capable of meeting the standards of LEED® Certified or equivalent green building standards, which entails implementing conservation features to reduce natural gas usage. LEED® Certified or equivalent green building standards may be achieved through a variety of measures some of which are not directly related to energy consumption (e.g. interior lighting, acoustic performance). LEED® Certified requires exceeding Title 24, Part 6 by 10 percent for energy efficiency. In order to meet the LEED energy performance requirement, the Project may include use of efficient water heaters, cooking equipment and other major support appliances. Furthermore, the Project Applicant would implement GHG-PDF-2 in Section IV.C, Greenhouse Gas Emissions, of this Draft EIR, which states that the Project would prohibit the use of natural gas-fueled fireplaces in the proposed residential units.

As stated above, the Project's estimated net increase in demand for natural gas is 5,319,230 cf per year, or approximately 14,573 cf per day. Based on the 2018 California Gas Report, the California Energy and Electric Utilities estimates natural gas consumption within SoCalGas' planning area will be approximately 2.50 billion cf/day in 2023 (the

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<sup>54</sup> LADWP defines its future electricity supplies in terms of sales that will be realized at the meter.

<sup>55</sup> LADWP, 2017 Power Strategic Long-Term Resources Plan, December 2017, Appendix A, Table A-1.

Project's buildout year).<sup>56</sup> The Project would account for approximately 0.0006 percent of the 2023 forecasted consumption in SoCalGas' planning area. In addition, as also previously described, the Project would incorporate a variety of energy conservation measures to reduce energy usage.

### 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. As noted above, the Project Site is located in an HQTAs designated by SCAG, which indicates that the Project Site is an appropriate site for increased density and employment opportunities from a "smart growth," regional planning perspective.<sup>57</sup> As discussed in Section IV.G, Transportation, of this Draft EIR, the Project Site is located less than 0.5 mile from the Metro Red Line Hollywood and Vine rail station, as well as 11 bus lines, which would provide service within the Project vicinity and would provide employees, residents, and guests with various public transportation opportunities. The Project would provide a minimum of 182 bicycle parking spaces (26 short-term spaces and 156 long-term spaces) for its retail and restaurant option, and a minimum of 186 bicycle parking spaces (28 short-term and 158 long-term spaces) for its grocery store option. The Project would also incorporate characteristics that would reduce trips and VMT as compared to standard ITE trip generation rates. The Project characteristics listed below are consistent with the California Air Pollution Control Officers Association (CAPCOA) guidance document, *Quantifying Greenhouse Gas Mitigation Measures*,<sup>58</sup> which identifies the VMT and vehicle trips reductions for the Project Site relative to the standard trip and VMT rates in CalEEMod, which corresponds to reduction in relative GHG emissions. Measures applicable to the Project include the following; a brief description of the Project's relevance to the measure is also provided:

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<sup>56</sup> *California Gas and Electric Utilities, 2018 California Gas Report p. 100. Interpolated between 2022 and 2025 estimates.*

<sup>57</sup> *The Project Site is also located in a Transit Priority Area as defined by Public Resources Code Section 20199. Public Resources Code Section 21099 defines a "transit priority area" as an area within 0.5 mile of a major transit stop that is "existing or planned, if the planned stop is scheduled to be completed within the planning horizon included in a Transportation Improvement Program adopted pursuant to Section 450.216 or 450.322 of Title 23 of the Code of Federal Regulations." Public Resources Code Section 21064.3 defines "major transit stop" as "a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods." Also refer to the City's ZIMAS system confirming the location of the Project Site within a Transit Priority Area.*

<sup>58</sup> *CAPCOA, Quantifying Greenhouse Gas Mitigation Measures, August 2010.*



- **CAPCOA Measure LUT-1—Increase Density:** Increased density, measured in terms of persons, jobs, or dwelling units per unit area, reduced emissions associated with transportation as it reduces the distance people travel for work or services and provides a foundation for the implementation of other strategies, such as enhanced transit services. The Project would increase the site density from zero dwelling units per acre and 152 jobs per acre to approximately 251 dwelling units per acre and 66 jobs per acre.
- **CAPCOA Measure LUT-3—Increase Diversity of Urban and Suburban Developments (Mixed-Uses):** The Project would introduce new uses on the Project Site, including new residential and commercial uses; either retail and restaurant uses or a grocery store, in proximity to other existing off-site residential and commercial retail and restaurant uses. The increases in land use diversity and mix of uses on the Project Site would reduce vehicle trips and VMT by encouraging walking and non-automotive forms of transportation (i.e., walking and biking), which would result in corresponding reductions in transportation-related emissions.
- **CAPCOA Measure LUT-5—Increase Transit Accessibility:** The Project would be located approximately 0.28 mile from the Metro Red Line Hollywood/Vine Station. In addition, the Project Site is served by one Metro Rapid line, seven Metro Local lines, and three LADOT DASH lines. The Project would also provide bicycle parking spaces for the proposed uses to encourage utilization of alternative modes of transportation.
- **CAPCOA Measure LUT 6—Integrate Affordable and Below Market Rate Housing:** Below market rate housing provides greater opportunity for people to live closer to job centers and to accommodate more people in urban infill areas. The Project would include 13 affordable units (5 percent of the Project Site's base density) that would be restricted to Very Low Income households, which would result in an increase in alternative transit usage and a corresponding reduction in transportation-related emissions.
- **CAPCOA Measure LUT-9—Improve Design of Development:** The Project would remove the existing warehouse, office, and commercial uses and enhance the pedestrian environment by developing a mix of uses to improve pedestrian activation of the street.
- **CAPCOA Measure SDT-1—Provide Pedestrian Network Improvements:** Project design would provide pedestrian access that minimizes barriers and links the Project Site with existing or planned external streets to encourage people to walk instead of drive.

As such, the Project's siting would minimize transportation fuel consumption through the reduction of VMT, as described above and discussed further in Section IV.C, Greenhouse Gas Emissions, of this Draft EIR.

As summarized in Table IV.J-2 on page IV.J-22, when accounting for the CAPCOA measures that would be implemented to reduce VMT, the Project's estimated net petroleum-based fuel usage would be approximately 109,753 gallons of gasoline and 19,851 gallons of diesel per year, or a total of 129,604 gallons of petroleum-based fuels annually.

*(iii) Summary of Energy Requirements and Energy Use Efficiencies*

CEQA Guidelines Appendix F recommends quantification of 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 Project's energy requirements were calculated based on the methodology contained in CalEEMod for electricity and natural gas usage. Project VMT data was calculated based on CAPCOA guidelines. The calculations also took into account energy efficiency measures such as Title 24, CalGreen and vehicle fuel economy standards. Table IV.J-1 and Table IV.J-2 on pages IV.J-20 and IV.J-22, respectively, provide a summary of Project construction and operational energy usage, respectively. During Project construction activities, a net total of 17,603 kWh of electricity would be consumed along with 234,869 gallons of transportation fuel (gasoline and diesel). During Project operations, a net total of 1,725,539 kWh of electricity, 5,319,230 cf of natural gas, and 129,604 gallons of transportation fuel would be consumed on an annual basis.

*(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 intermittently consumed during the conveyance of the water used to control fugitive dust, as well as to provide electricity for temporary lighting and other general 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. When not in use, electric equipment would be powered off so as to avoid unnecessary energy consumption. The estimated construction electricity usage represents approximately 1.6 percent of the estimated net annual operational demand which, as discussed below, would be within the supply and infrastructure service capabilities of LADWP.<sup>59</sup> Furthermore, the electricity demand during construction would be somewhat offset with the

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<sup>59</sup> The percentage is derived by taking the total amount of electricity usage during construction (27,632 kWh) and dividing that number by the total amount of net electricity usage during operation (1,725,539 kWh) to arrive at 1.6 percent.

removal of the existing on-site uses which currently generate a demand for electricity. 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, resulting in a net decrease when compared to existing operations. Transportation fuel usage during Project construction activities would represent approximately 0.001 percent of gasoline usage and 0.03 percent of diesel usage within Los Angeles County, respectively. As energy consumption during Project construction activities would be relatively negligible, the Project would not likely affect regional energy consumption in years during the construction period.

*(ii) Operation*

Based on LADWP's 2017 Power Strategic Long-Term Resources Plan, LADWP forecasts that its total energy sales in the 2023–2024 fiscal year (the Project's buildout year) will be 23,033 GWh of electricity.<sup>60,61</sup> As such, the Project-related net increase in annual electricity consumption of 1,725,539 kWh per year would represent less than 0.01 percent of LADWP's projected sales in 2023.<sup>62</sup> Furthermore, LADWP has confirmed that the Project's electricity demand can be served by the facilities in the Project area.<sup>63</sup>

As energy consumption during Project operations would be relatively negligible and energy requirements are within LADWP's and SoCalGas' service provision, Project operational impacts on energy usage would be less than significant.

*(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 LADWP's power grid and base load conditions. With regard to peak load conditions, the LADWP power system experienced an all time high peak of 6,432 MW on August 31, 2017.<sup>64</sup> The LADWP also estimates a peak load based on two years of data known as base case peak demand to account for typical peak conditions. Based on LADWP estimates for 2017, the base case

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<sup>60</sup> LADWP defines its future electricity supplies in terms of sales that will be realized at the meter.

<sup>61</sup> LADWP, 2017 Power Strategic Long-Term Resources Plan, December 2017, Appendix A, Table A-1.

<sup>62</sup> LADWP, 2017 Power Strategic Long-Term Resources Plan, December 2017, Appendix A

<sup>63</sup> Kimley Horn and Associates, Inc., Utility Infrastructure Technical Report: Water, Wastewater, Dry Utilities, February 21, 2019. Refer to Appendix L of this Draft EIR.

<sup>64</sup> LADWP, 2017 Retail Electric Sales and Demand Forecast. p. 6.

peak demand for the power grid is 5,854 MW.<sup>65</sup> Under peak conditions, the Project would consume 1,725,539 kWh on an annual basis which is equivalent to a daily peak load of 345 kW. In comparison to the LADWP power grid base peak load of 5,854 MW in 2017, the Project would represent approximately 0.006 percent of the LADWP base peak load conditions. In addition, LADWP's annual growth projection in peak demand of the electrical power grid of 0.4 percent would be sufficient to account for future electrical demand by the Project.<sup>66</sup> Therefore, Project electricity consumption during operational activities would have a negligible effect on peak load conditions of the power grid.

*(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>67</sup> Electricity and Natural Gas usage during Project operations presented in Table IV.J-2 on page IV.J-22 would comply with 2016 Title 24 standards and applicable 2016 CalGreen requirements and Los Angeles Green Building Code. 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 travelling to and from the Project Site are assumed to comply with CAFE fuel economy 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.

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<sup>65</sup> LADWP, 2017 Retail Electric Sales and Demand Forecast. p. 6.

<sup>66</sup> LADWP, 2017 Retail Electric Sales and Demand Forecast. p. 6.

<sup>67</sup> Energy Independence and Security Act of 2007, Pub.L. 110-140.

(e) *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's most recently adopted 2017 Power Strategic Long-Term Resources Plan identifies adequate resources (natural gas, coal) to support future generation capacity.

Natural gas supplied to the Southern California is mainly sourced from out of state with a small portion originating in California. Sources of natural gas for the Southern California region are obtained from locations throughout the western United States as well as Canada.<sup>68</sup> According to the U.S. Energy Information Administration (EIA), the United States currently has over 80 years of natural gas reserves based on 2015 consumption.<sup>69</sup> Compliance with energy standards is expected to result in more efficient use of natural gas (lower consumption) in future years. Therefore, Project construction and operation activities would have a negligible effect on natural gas supply.

Transportation fuels (gasoline and diesel) are produced from crude oil which is imported from various regions around the world. Based on current proven reserves, crude oil production would be sufficient to meet over 50 years of consumption.<sup>70</sup> The Project would also comply with CAFE fuel economy standards, which would result in more efficient use of transportation fuels (lower consumption). Therefore, Project construction and operation activities would have a negligible effect on the transportation fuel supply.

As discussed above in the Regulatory Framework, one of the objectives of SB 350 is to increase procurement of California's electricity from renewable sources from 33 percent to 50 percent by 2030. Accordingly, LADWP is required to procure at least 50 percent of their energy portfolio from renewable sources by 2030. The current sources of renewable energy procured by LADWP include wind, solar, and geothermal sources. These sources account for 30 percent of LADWP's overall energy mix in 2017, the most recent year for which data are available.<sup>71</sup> This represents the available off-site renewable sources of energy that would meet the Project's energy demand.

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<sup>68</sup> *California Gas and Electric Utilities, 2018 California Gas Report.*

<sup>69</sup> *U.S. Energy Information Administration, Frequently Asked Questions, [www.eia.gov/tools/faqs/faq.php?id=58&t=8](http://www.eia.gov/tools/faqs/faq.php?id=58&t=8), accessed January 3, 2019.*

<sup>70</sup> *bp Global, Oil Reserves, [www.bp.com/en/global/corporate/energy-economics/statistical-review-of-world-energy/oil.html#oil-reserves](http://www.bp.com/en/global/corporate/energy-economics/statistical-review-of-world-energy/oil.html#oil-reserves), accessed January 15, 2019.*

<sup>71</sup> *California Energy Commission, Utility Annual Power Content Labels for 2017, [www.energy.ca.gov/pcl/labels/](http://www.energy.ca.gov/pcl/labels/), accessed March 7, 2019.*

With regard to on-site renewable energy sources, as discussed in Section II, Project Description, of this Draft EIR, the Project would include the provision of conduit that is appropriate for future photovoltaic and solar thermal collectors. However, due to the Project Site's location, other on-site renewable energy sources would not be feasible to install on-site as there are no local sources of energy from the following sources: biodiesel, biomass hydroelectric and small hydroelectric, digester gas, methane, fuel cells, landfill gas, municipal solid waste, ocean thermal, ocean wave, and tidal current technologies, or multi-fuel facilities using renewable fuels. Furthermore, wind-powered energy is not viable on the Project Site due to the lack of sufficient wind in the Los Angeles basin. Specifically, based on a map of California's wind resource potential, the Project Site is not identified as an area with wind resource potential.<sup>72</sup>

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

As discussed above in Section 3.c(2)(a)(i), the Project would include project features to reduce vehicle miles travelled during operational activities. The Project's high density design and location to job centers and retail uses would allow for more residents to live closer to work and shopping areas, reducing the vehicle miles travelled. The design, which includes dedicated bicycle parking facilities and an improved streetscape with pedestrian amenities, also encourages non-automotive forms of transportation such as walking or biking to destinations. In addition, the Project would be located approximately 0.28 mile from the Metro Red Line Hollywood/Vine Station. In addition, the Project Site is served by one Metro Rapid line, seven Metro Local lines, and three LADOT Downtown Area Shuttle (DASH) lines. As further discussed in Section IV.C, Greenhouse Gas Emissions, of this Draft EIR, these measures would reduce VMT by approximately 66 percent in comparison to a standard project as estimated by CalEEMod, with a corresponding reduction in the Project's petroleum-based fuel usage. Therefore, the Project would encourage the use of 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 City of LA Green Building Code requires compliance with CalGreen and California's Building Energy Efficiency Standards (Title 24). In addition to compliance with the City's Green Building Code, the Project would be capable of achieving at least LEED® Certified equivalent status, which include conservation features to reduce natural gas usage. LEED® Certified equivalent status may be achieved through a variety of measures,

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<sup>72</sup> CEC, *Wind Resource Area & Wind Resources*, [www.energy.ca.gov/maps/renewable/wind.html](http://www.energy.ca.gov/maps/renewable/wind.html), updated October 16, 2017.

some of which are not directly related to energy consumption (e.g. interior lighting, acoustic performance). As discussed above, LEED® Certified requires exceeding Title 24, Part 6 by 10 percent for energy efficiency. Therefore, the Project would incorporate measures that are above and beyond current State and City energy conservation requirements.

The City has also adopted several plans and regulations to promote the reduction, reuse, recycling, and conversion of solid waste going to disposal systems. These regulations include the City of Los Angeles Solid Waste Management Policy Plan, the RENEW LA Plan, and the Exclusive Franchise System Ordinance (Ordinance No. 182,986). These solid waste reduction programs and ordinances help to reduce the number of trips associated with hauling solid waste, thereby reducing the amount of petroleum-based fuel consumed. Furthermore, recycling efforts indirectly reduce the energy necessary to create new products made of raw material, which is an energy-intensive process. Thus, through compliance with the City's construction-related solid waste recycling programs, the Project would contribute to reduced fuel-related energy consumption.

With implementation of these features along with complying with state and local energy efficiency standards, the Project would meet and/or exceed all applicable energy conservation policies and regulations.

*(h) Whether the Project conflicts with adopted energy conservation plans*

As discussed in Section IV.D, Greenhouse Gas Emissions, the City has published its LA Green Plan/ClimateLA in 2007 which outlines goals and actions by the City to reduce GHG emissions. To facilitate implementation of the LA Green Plan/Climate LA, the City adopted the Green Building Code. The Project would comply with applicable regulatory requirements for the design of new buildings, including the provisions set forth in the 2016 CALGreen Code and California's Building Energy Efficiency Standards, which have been incorporated into the City's Green Building Code.

With regard to transportation uses, the Project design would reduce the vehicle miles travelled throughout the region and encourage use of alternative modes of transportation. The Project would be consistent with regional planning strategies that address energy conservation. As discussed above and in Section IV.D, Land Use and Planning, of this Draft EIR, SCAG's 2016 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 2016 RTP/SCS focuses on reducing fossil fuel use by decreasing VMT, reducing building energy use, and increasing use of renewable sources. The Project would be consistent with the energy efficiency policies emphasized in the 2016 RTP/SCS. Most notably, the Project would be a mixed-use development consisting of

neighborhood-serving commercial retail and restaurant uses located one block from Vine Street and one block from Hollywood Boulevard, two commercial corridors that are characterized by a high degree of pedestrian activity. The Project would provide greater proximity to neighborhood services, jobs, and residences and would be well-served by existing public transportation, including Metro and LADOT bus lines and rail lines. This is evidenced by the Project Site's location within a designated HQTAs.<sup>73</sup> The introduction of new housing and job opportunities within an HQTAs, as proposed by the Project, is consistent with numerous policies in the 2016 RTP/SCS related to locating new housing and jobs near transit. The 2016 RTP/SCS would result in an estimated 8-percent decrease in VMT by 2020, an 18-percent decrease in VMT by 2035, and a 21-percent decrease in VMT by 2040. By meeting and exceeding the SB 375 targets for 2020 and 2035, as well as achieving an approximately 21-percent decrease in VMT by 2040 (an additional 3-percent reduction in the 5 years between 2035 [18 percent] and 2040 [21 percent]), the 2016 RTP/SCS is expected to fulfill and exceed its portion of SB 375 compliance with respect to meeting the state's GHG emission reduction goals. Subsequent to adoption of the 2016 RTP/SCS, CARB adopted in 2018 a new target requiring a 19-percent decrease in VMT for the SCAG region by 2035. It is expected that this new target will be incorporated into the next RTP/SCS. The 2016 RTP/SCS and/or the next RTP/SCS are therefore expected to fulfill and exceed SB 375 compliance with respect to meeting the State's GHG emission reduction goals.

Thus, consistent with the 2016 RTP/SCS, the Project would reduce VMT by 66 percent in comparison to a standard project as estimated by CalEEMod, and, consequently, the Project's petroleum-based fuel usage would be reduced. In addition, the Project would comply with state energy efficiency requirements, would be capable of achieving at least current LEED® Certified equivalent status, and would use electricity from LADWP, which has a current renewable energy mix of 30 percent. All of these features would serve to reduce the consumption of electricity, natural gas, and transportation fuel. Based on the above, the Project would be consistent with adopted energy conservation plans.

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<sup>73</sup> *The Project Site is also located in Transit Priority Area as defined by Public Resources Code Section 20199. Public Resources Code Section 21099 defines a "transit priority area" as an area within 0.5 mile of a major transit stop that is "existing or planned, if the planned stop is scheduled to be completed within the planning horizon included in a Transportation Improvement Program adopted pursuant to Section 450.216 or 450.322 of Title 23 of the Code of Federal Regulations." Public Resources Code Section 21064.3 defines "major transit stop" as "a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods." Also refer to the City's ZIMAS system confirming the location of the Project Site within a Transit Priority Area.*



*(i) Conclusion*

As demonstrated in the analysis above, the Project would not result in potentially significant environmental impact due to wasteful, inefficient, and unnecessary consumption of energy resources during construction or operation. The Project's energy requirements would not significantly affect local and regional supplies or capacity. The Project's energy usage during based and peak periods would be consistent with electricity and natural gas future projections for the region. Electricity generation capacity and supplies of natural gas and transportation fuels would be sufficient to meet the needs of Project-related construction and operational activities. During construction the Project would comply with on-road fuel economy Title 24 energy efficiency standards where applicable resulting in efficient use of energy. During operations, the Project would comply with applicable energy efficiency requirements such as CalGreen, as well as include energy conservation measures beyond requirements, such as LEED® Certified equivalency. 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 Threshold (a) would be less than significant during construction and operation.**

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

As discussed in Subsection 3.c(2)(h) above, the energy conservation policies and plans relevant to the Project include the California Title 24 energy standards, the 2016 CALGreen building code, and the City of Los Angeles Green Building Code. As these conservation policies are mandatory under the City of LA Building Code, the Project would not conflict with applicable plans for renewable energy or energy efficiency. In addition, the Project would implement measures to achieve LEED® Certified equivalency which would exceed Title 24 energy efficiency requirements.

With regard to transportation related energy usage, the Project would comply with goals of the SCAG's 2016 RTP/SCS which incorporates VMT targets established by SB 375. The Project's mixed-use development and proximity to major job centers and public transportation would serve to reduce VMT and associated transportation fuel usage within the region. In addition, vehicle trips generated during Project operations would comply with CAFÉ fuel economy standards. During construction activities, the Project would be required to comply with CARB anti-idling regulations and the In-Use Off-Road Diesel Fleet regulations.

Based on the above, the Project would not conflict with adopted energy conservation plans, or violate state or federal energy standards. **Therefore, Project impacts associated with regulatory consistency under Threshold (b) would be less than significant.**

**Threshold (c): Require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?**

(a) Construction

(i) Electricity

As discussed above, construction activities at the Project Site would require minor quantities of electricity for lighting, power tools and other support equipment. Heavy construction equipment would be powered with diesel fuel. During Project construction activities, electricity usage represents 1.6 percent of the estimated net annual Project operational demand, which as described below, LADWP's existing electrical infrastructure currently has enough capacity to provide service for construction activities.<sup>74</sup> Moreover, construction electricity usage would be less than the existing electricity usage at the Project Site during construction since the existing on-site uses which currently generate a demand for electricity would be removed. As existing power lines are located in the vicinity of the Project site, temporary power poles may be installed to provide electricity during Project construction. Existing off-site infrastructure would not have to be expanded or newly developed to provide electrical service to the project during construction or demolition. **Therefore, the Project would not result in an increase in demand for electricity that exceeds available supply or distribution infrastructure capabilities that could result in the relocation or construction of new or expanded electric power facilities, the construction or relocation of which could cause significant environmental effects.**

With regard to existing electrical distribution lines, the Applicant would be required to coordinate electrical infrastructure removals or relocations with LADWP and comply with site-specific requirements set forth by LADWP, which would ensure that service disruptions and potential impacts associated with grading, construction, and development within LADWP easements are minimized. Therefore, if existing infrastructure needs to be upgraded, it would not result in significant environmental impacts. **As such, construction of the Project is not anticipated to adversely affect the electrical infrastructure serving the surrounding uses or utility system capacity.**

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<sup>74</sup> The percentage is derived by taking the total amount of electricity usage during construction (27,632 kWh) and dividing that number by the total amount of net electricity usage during operation (1,725,539 kWh) to arrive at 1.6 percent.

*(ii) Natural Gas*

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. However, the Project would involve installation of new natural gas connections to serve the Project Site. Since the Project Site is located in an area already served by existing natural gas infrastructure, it is anticipated that the Project would not require extensive off-site infrastructure improvements to serve the Project Site. Construction impacts associated with the installation of natural gas connections are expected to be confined to trenching in order to place the lines below surface and would not cause significant environmental effects. In addition, prior to ground disturbance, Project contractors would notify and coordinate with SoCalGas to identify the locations and depth of all existing gas lines and avoid disruption of gas service to other properties. **Therefore, construction of the Project would not result in an increase in demand for natural gas to affect available supply or distribution infrastructure capabilities and would not result in the relocation or construction of new or expanded natural gas facilities, the construction or relocation of which could cause significant environmental effects.**

*(b) Operation**(i) Electricity*

As shown in Table IV.J-2 on page IV.J-22, the Project's net operational electricity usage would be 1,725,539 kWh per year, which is less than 0.01 percent of LADWP's projected sales in 2023.<sup>75</sup> In addition, during peak conditions, the Project would represent approximately 0.006 percent of the LADWP estimated peak load. LADWP has confirmed that the Project's electricity demand can be served by the facilities in the Project area.<sup>76</sup> **Therefore, during Project operations, it is anticipated that LADWP's existing and planned electricity capacity and electricity supplies would be sufficient to support the Project's electricity demand.**

*(ii) Natural Gas*

As shown in Table IV.J-2, the Project would consume 5,319,230 cf per year, which represents approximately 0.0006 percent of the 2023 forecasted consumption in the SoCalGas planning area. SoCalGas has confirmed that the Project's natural gas demand

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<sup>75</sup> LADWP, 2017 Power Strategic Long-Term Resources Plan, December 2017, Appendix A, Table A-1.

<sup>76</sup> Kimley Horn and Associates, Inc., Utility Infrastructure Technical Report: Water, Wastewater, Dry Utilities, February 21, 2019. Refer to Appendix L of this Draft EIR.

can be served by the facilities in the Project area.<sup>77</sup> **Therefore, it is anticipated that SoCalGas' existing and planned natural gas supplies would be sufficient to support the Project's net increase in demand for natural gas.**

*(c) Conclusion*

As demonstrated in the analysis above, construction and operation of the Project would not result in an increase in demand for electricity or natural gas that exceeds available supply or distribution infrastructure capabilities that could result in the construction of new energy facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. **Therefore, Project impacts related to Threshold (c) would be less than significant during construction and operation.**

## 4. Cumulative Impacts

### a. Wasteful, Inefficient and Unnecessary Use of Energy

Cumulative impacts occur when impacts that are significant or less than significant from a proposed project combine with similar impacts from other past, present, or reasonably foreseeable projects in a similar geographic area. Based on the information presented in Section III, Environmental Setting, of this Draft EIR, there are 108 related projects located within the vicinity of the Project Site and the Hollywood Community Plan Update (Related Project No. 109). The geographic context for the cumulative analysis of electricity is LADWP's service area and the geographic context for the cumulative analysis of natural gas is SoCalGas' service area. While the geographic context for transportation-related energy use is more difficult to define, it is meaningful to consider the Project in the context of County-wide consumption. 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.

#### (1) Electricity

Although Project development would result in the use of renewable and non-renewable electricity resources during construction and operation, 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, and would be consistent with growth expectations for LADWP's service area. The Project would also incorporate additional energy efficiency measures to make the Project capable of achieving LEED®

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<sup>77</sup> *Kimley Horn and Associates, Inc., Utility Infrastructure Technical Report: Water, Wastewater, Dry Utilities, February 21, 2019. Refer to Appendix L of this Draft EIR.*

Certification or equivalent, as required by Project Design Feature GHG-PDF-1. Furthermore, other future development projects (related projects) would be expected to incorporate energy conservation features, comply with applicable regulations including CALGreen and State energy standards under Title 24, and incorporate mitigation measures, as necessary.

Additionally, as discussed above, LADWP is required to procure at least 33 percent of its energy portfolio from renewable sources by 2020. The current sources of renewable energy procured by LADWP include wind, solar, and geothermal sources. These sources accounted for 30 percent of LADWP's overall energy mix in 2017, the most recent year for which data are available.<sup>78</sup> This 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 energy conservation plans and efficiency standards required to ensure that energy is used efficiently. **As such, the Project's contribution to cumulative impacts related to potentially significant environmental impacts due to wasteful, inefficient and unnecessary use of electricity would not be cumulatively considerable and, thus, would be less than significant.**

## (2) Natural Gas

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, and would be consistent with regional and local growth expectations for SoCalGas' service area. The Project would also incorporate additional energy efficiency measures capable of achieving LEED Certified or equivalent, as required by Project Design Feature GHG-PDF-1. Furthermore, future development projects (related projects) would be expected to incorporate energy conservation features, comply with applicable regulations including CALGreen and state energy standards under Title 24, and incorporate mitigation measures, as necessary. Therefore, the Project and related projects would comply with energy conservation plans and efficiency standards required to ensure that energy is used efficiently. **As such, cumulative impacts related to potentially significant environmental impacts due to wasteful, inefficient and unnecessary use of natural gas would not be cumulatively considerable and, thus, would be less than significant.**

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<sup>78</sup> California Energy Commission, *Utility Annual Power Content Labels for 2017*, [www.energy.ca.gov/pcl/labels/](http://www.energy.ca.gov/pcl/labels/), accessed March 7, 2019.

### (3) 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 net total of 109,753 gallons of gasoline and 19,851 gallons of diesel per year, or a total of 129,604 gallons of petroleum-based fuels per year. For comparison purposes, the transportation-related fuel usage for the Project would represent approximately 0.003 percent of the 2016 annual on-road gasoline- and diesel-related energy consumption in Los Angeles County, as shown in Appendix M, of this Draft EIR.

Related projects in the Project vicinity would also be infill projects locating uses near other residential and commercial uses which would reduce distance travelled as well as consumption of transportation fuel. As analyzed above, Project transportation fuel usage would represent a small percentage of total fuel consumption within Los Angeles County. While it is speculative to assess transportation fuel usage from related projects, it is expected that cumulative transportation fuel usage resulting from the Project and related projects would be consistent with projections discussed above.

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 vehicle miles traveled which would reduce reliance on petroleum fuels. According to the CEC, gasoline consumption would decline by 6 percent since 2008, and the CEC predicts that the demand for gasoline will continue to decline over the next 10 years due to improved fuel economy and the use of alternative fuels, such as natural gas, biofuels, and electricity. As with the Project, other future development projects would be expected to reduce VMT by encouraging the use of alternative modes of transportation and other design features that promote VMT reductions.

Furthermore, as described above, the Project would be consistent with the energy efficiency policies emphasized by the 2016 RTP/SCS. Specifically, the Project would be a mixed-use development consisting of residential and neighborhood-serving commercial retail and restaurant uses located one block from Vine Street and one block from Hollywood Boulevard, two commercial corridors that are characterized by a high degree of pedestrian activity. The Project would provide greater proximity to neighborhood services, jobs, and residences and would be well-served by existing public transportation, including Metro and LADOT bus lines and rail line. The Project also would introduce new housing and job opportunities within an HQTAs, which is consistent with numerous policies in the

2016 RTP/SCS related to locating new jobs near transit.<sup>79</sup> These features would serve to reduce VMT and associated transportation fuel consumption.<sup>80</sup> Although there are no per capita GHG emission reduction targets for passenger vehicles set by CARB for 2040, the 2016 RTP/SCS GHG emission reduction trajectory shows that more aggressive GHG emission reductions are projected for 2040.<sup>81</sup> Implementation of the 2016 RTP/SCS would result in an estimated 8-percent decrease in per capita GHG emissions by 2020, 18-percent decrease in per capita GHG emissions by 2035, and 21-percent decrease in per capita GHG emissions by 2040. As discussed above, CARB updated the SB 375 targets for the SCAG region, requiring a 19-percent decrease in VMT by 2035. Implementation of the 2016 RTP/SCS or the next plan is expected to fulfill and exceed the region's obligations under SB 375 with respect to meeting the State's GHG emission reduction goals. As discussed in Section IV.C, Greenhouse Gas Emissions, of this Draft EIR, the Project results in a VMT reduction of approximately 66 percent in comparison to a Project without Reduction Measures, which would be consistent with the reduction in transportation emission per capita provided in the 2016 RTP/SCS and with CARB's updated 2035 target.

Although the 2016 RTP/SCS is intended to reduce GHG emissions, the reduction in VMT would also result in reduced transportation fuel consumption. By its very nature, the 2016 RTP/SCS is a regional planning tool that addresses cumulative growth and resulting environmental effects. In addition, it is assumed that related projects in the Project Site vicinity would reduce VMT, consistent with the goals of the 2016 RTP/SCS. **Since the Project is consistent with the 2016 RTP/SCS, its contribution to cumulative impacts related to potentially significant environmental impacts due to wasteful, inefficient and unnecessary use of transportation fuel would not be cumulatively considerable and, thus, would be less than significant.**

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<sup>79</sup> *The Project Site is also located in Transit Priority Area as defined by Public Resources Code Section 20199. Public Resources Code Section 21099 defines a "transit priority area" as an area within 0.5 mile of a major transit stop that is "existing or planned, if the planned stop is scheduled to be completed within the planning horizon included in a Transportation Improvement Program adopted pursuant to Section 450.216 or 450.322 of Title 23 of the Code of Federal Regulations." Public Resources Code Section 21064.3 defines "major transit stop" as "a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods." Also refer to the City's ZIMAS system confirming the location of the Project Site within a Transit Priority Area.*

<sup>80</sup> *Implementation of Project Design Features GHG-PDF-3 and GHG-PDF-4 (minimum of 20 percent of total code-required parking spaces shall be capable of supporting future EVSE and five percent equipped with EV charging stations) would also serve to reduced transportation fuel consumption.*

<sup>81</sup> *SCAG, Final 2016–2040, RTP/SCS, April 2016, p. 153.*

#### (4) Conclusion

Based on the analysis provided above, the Project's contribution to cumulative impacts related to energy consumption (i.e., electricity, natural gas, and petroleum-based fuel) 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, the Project's impacts would not be cumulatively considerable; therefore, cumulative energy impacts under Threshold (a) are concluded to be less than significant.

#### b. Consistency with State or Local Plans

Related and future projects within the Project area would be required to comply with energy conservation and renewable energy plans and polices described above, including Title 24, CALGreen, and the City of LA Green Building Code. As related projects would be required to meet the same energy consumption standards, there would be no significant cumulative impacts with regard to consistency with energy conservation plans.

Furthermore, as described above, the Project would be consistent with the policies emphasized by the 2016–2040 RTP/SCS. The Project would be mixed-use and located near major job centers and public transit which would result in a VMT reduction. As discussed in Section IV.D, Greenhouse Gas Emissions, of this Draft EIR, the Project results in a VMT reduction of approximately 66 percent in comparison to a standard project as estimated by CalEEMod, which would be consistent with the reduction in transportation emission per capita provided in the 2016 RTP/SCS and with CARB's updated 2035 target. Therefore, the Project is consistent with the 2016 RTP/SCS and would not be cumulatively considerable with regard to consistency with energy conservation plans.

#### c. Infrastructure Capacity

##### (1) 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 infrastructure capacity. LADWP forecasts that its total energy sales in the 2023–2024 fiscal year (the Project's buildout year) will be 23,033 GWh of electricity.<sup>82,83</sup> As such, the Project-related net increase in annual electricity consumption of 1,725,539 kWh per year would represent less than 0.01 percent of LADWP's projected sales in 2023 and in general,

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<sup>82</sup> LADWP defines its future electricity supplies in terms of sales that will be realized at the meter.

<sup>83</sup> LADWP, 2017 Power Strategic Long-Term Resources Plan, December 2017, Appendix A, Table A-1.



each related project would be expected to comprise a similarly limited percentage of overall electricity consumption. In addition, LADWP has confirmed that the Project's electricity demand can be served by the facilities in the Project area, and in general, each related project would be expected to comprise a similarly limited percentage of overall electricity consumption.<sup>84</sup> Data used to develop the LADWP demand forecasts take into account population growth, energy efficiency improvements, and economic growth which includes construction projects.<sup>85</sup> Therefore, electricity usage resulting from future operations at many of the related projects is likely accounted for in the LADWP projections.

Electricity infrastructure is typically expanded in response to increasing demand, and system expansion and improvements by LADWP are ongoing. 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. The 2017 Power Strategic Long-Term Resources Plan takes into account future energy demand, advances in renewable energy resources and technology, energy efficiency, conservation, and forecast changes in regulatory requirements. Development projects within the LADWP service area would also be anticipated to incorporate site-specific infrastructure improvements, as necessary. Although detailed information regarding electrical infrastructure for each of the related projects is not known, it is expected that LADWP would provide for necessary improvements specific to each related project. Each of the related projects would be reviewed by LADWP to identify necessary power facilities and service connections to meet the needs of their respective projects. Similar to the Project, each related Project would be required to coordinate electrical infrastructure removals or relocations with LADWP and comply with site-specific requirements set forth by LADWP, which would ensure that service disruptions and potential impacts associated with grading, construction, and development within LADWP easements are minimized. Therefore, if existing infrastructure needs to be upgraded, it would not result in significant environmental impacts. Furthermore, as discussed above, will serve letters are provided for individual projects which determines whether sufficient infrastructure is in place to provide electrical service to the proposed project. As part of the will serve letter process, LADWP takes into account all uses (including related projects) in the service area ensure that sufficient local and regional infrastructure is adequate. As the will serve letter for the Project identified adequate infrastructure, construction and operation of the Project would not adversely affect the LADWP electrical grid. **The Project's contribution to cumulative impacts with respect to electric power facilities would not**

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<sup>84</sup> *Kimley Horn and Associates, Inc., Utility Infrastructure Technical Report: Water, Wastewater, Dry Utilities, February 21, 2019. Refer to Appendix L of this Draft EIR.*

<sup>85</sup> *2016 Retail Electric Sales and Demand Forecast, City of Los Angeles Department of Water and Power, June 30, 2016.*

**be cumulatively considerable and, thus, would result in a less than significant cumulative impact.**

## (2) 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 infrastructure capacity. Based on the 2018 California Gas Report, the CEC estimates natural gas consumption within SoCalGas' planning area will be approximately 2.50 billion cf per day in 2023 (the Project's buildout year).<sup>86</sup> The Project would account for approximately 0.0006 percent of the 2023 forecasted consumption in SoCalGas' planning area. In addition, SoCalGas has confirmed that the Project's natural gas demand can be served by the facilities in the Project area, and in general, each related project would be expected to comprise a similarly limited percentage of overall natural gas consumption.<sup>87</sup> Moreover, SoCalGas' forecasts take into account projected population growth and development based on local and regional plans. Therefore, natural gas usage resulting from future operations at many of the related projects is likely accounted for in the SoCalGas projections.

Natural gas infrastructure is typically expanded in response to increasing demand and system expansion and improvements by SoCalGas occur as needed. It is expected that SoCalGas would continue to expand delivery capacity if necessary to meet demand increases within its service area. Although detailed information regarding natural gas infrastructure for each of the related projects is not known, it is expected that SoCalGas would provide for necessary improvements specific to each related project. Development projects within its service area would also be anticipated to incorporate site-specific infrastructure improvements, as appropriate. Project applicants would be required to provide for the needs of their individual projects, thereby contributing to the natural gas infrastructure in the Project area. Similar to the Project, each related Project would be required to coordinate natural gas infrastructure removals or relocations with SoCalGas and comply with site-specific requirements set forth by SoCalGas, which would ensure that service disruptions and potential impacts associated with grading, construction, and development within SoCalGas easements are minimized. Therefore, if existing infrastructure needs to be upgraded, it would not result in significant environmental impacts.

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<sup>86</sup> *California Gas and Electric Utilities, 2018 California Gas Report, p. 100.*

<sup>87</sup> *Kimley Horn and Associates, Inc., Utility Infrastructure Technical Report: Water, Wastewater, Dry Utilities, February 21, 2019. Refer to Appendix L of this Draft EIR.*

As discussed above, will serve letters are provided for individual projects which determines whether sufficient infrastructure is in place to provide natural gas service to the proposed project. As part of the will serve letter process, SoCalGas takes into account all uses (including related projects) in the service area ensure that sufficient local and regional infrastructure is adequate. As the will serve letter for the Project identified adequate infrastructure, construction and operation of the Project would not significantly affect the SoCalGas regional infrastructure. **The Project's contribution to cumulative impacts with respect to natural gas facilities would not be cumulatively considerable and, thus, would result in a less than significant cumulative impact.**

### (3) Conclusion

**Based on the analysis provided above, the Project's contribution to cumulative impacts related to energy consumption (i.e., electricity, natural gas) would not result in a cumulatively considerable effect related to available supply or distribution infrastructure capabilities that could result in the relocation or construction of new or expanded electric power and natural gas facilities, the construction of which could cause significant environmental effects. As such, the Project's impacts would not be cumulatively considerable; therefore, cumulative energy infrastructure impacts under Threshold (c) are concluded to be less than significant.**

## 5. Mitigation Measures

Project-level and cumulative impacts with regard to energy use and infrastructure would be less than significant. Therefore, no mitigation measures are required.

## 6. Level of Significance after Mitigation

### a. Energy Use

Project-level and cumulative impacts related to energy use would be less than significant without mitigation.

### b. Infrastructure Capacity

Project-level and cumulative impacts related to energy infrastructure would be less than significant without mitigation.