IV. Environmental Impact Analysis

C. Energy

1. Introduction

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

In accordance with the applicable Appendix G sections and utilizing guidance from Appendix F of the State CEQA Guidelines, this EIR includes relevant information and analyses that address the energy implications of the Project, focusing on the following three energy resources: electricity, natural gas, and transportation-related energy (petroleum-based fuels). The information presented herein is based, in part, on the *Morrison Hotel Project Utility Infrastructure Technical Report: Energy* (Energy Report),[1] and energy impact calculations based on the CalEEMod output files prepared for the greenhouse gas analysis presented in **Section IV.G, Greenhouse Gas Emissions**, of this Draft EIR. The Energy Report and the detailed energy impact calculations are included in **Appendix D.1** and **Appendix D.2,** respectively to this Draft EIR. Information found herein, as well as other aspects of the Project's energy implications, are discussed in greater detail elsewhere in this Draft EIR, including in **Section II, Project Description**, and **Sections IV.E, Greenhouse Gas Emissions**, **IV.M.1, Utilities and Service Systems – Water,** and **IV.M.3, Utilities and Service Systems – Solid Waste**.

2. Environmental Setting

a) Regulatory Framework

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

[1] *KPFF Consulting Engineers, Morrison Hotel Project, Utility Infrastructure Technical Report: Energy for APNs 5139-022-003, 5139-022-004, 5139-022-020, 5139-022-006, and 5139-022-02, 1220-1246 South Hope Street and 427-435 Pico Boulevard, Los Angeles, California, 90015, September 23, 2020.*

- Energy Independence and Security Act of 2007
- Corporate Average Fuel Economy Standards
- Federal Energy Policy and Conservation Act
- Senate Bill 1389
- Renewable Portfolio Standard
- California Building Standards
  - California Building Energy Efficiency Standards
  - California Green Building Standards
- California Assembly Bill 1493
- California Air Resources Board
  - Scoping Plan
  - Advanced Clean Car Program
  - Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling
  - In-Use Off-Road Diesel-Fueled Fleets Regulation
- Senate Bill 375
- Regional Transportation Plan/Sustainable Communities Strategy
- Green New Deal
- Green Building Code
- City of Los Angeles Mobility Plan 2035

(1) Federal

(a) 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 U.S. EPA 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."[2]

(b) Corporate Average Fuel Economy Standards

Established by the U.S. Congress in 1975, the Corporate Average Fuel Economy (CAFE) Standards (49 CFR Parts 531 and 533) reduce energy consumption by increasing the fuel economy of cars and light trucks. The National Highway Traffic Safety Administration (NHTSA) and the United States 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. When these standards are raised, automakers respond by creating a more fuel-efficient fleet. In 2012, the NHTSA established final passenger car and light truck CAFE standards for model years 2017 through 2021, which the agency projects will require in model year 2021, on average, a combined fleet-wide fuel economy of 40.3 to 41.0 miles per gallons (mpg). Fuel efficiency standards for medium- and heavy-duty trucks have been jointly developed by USEPA and NHTSA. The Phase 1 heavy-duty truck standards apply to combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles for model years 2014 through 2018, and result in a reduction in fuel consumption from 6 to 23 percent over the 2010 baseline, depending on the vehicle type.[3] USEPA and NHTSA have also adopted the Phase 2 heavy-duty truck standards, which cover model years 2021 through 2027 and require the phase-in of a 5 to 25 percent reduction in fuel consumption over the 2017 baseline depending on the compliance year and vehicle type.[4]

(c) Federal Energy Policy and Conservation Act

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

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[2] *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.*

[3] *United States Environmental Protection Agency, Fact Sheet: EPA and NHTSA Adopt First-Ever Program to Reduce Greenhouse Gas Emissions and Improve Fuel Efficiency of Medium- and Heavy-Duty Vehicles, 2011.*

[4] *United States Environmental Protection Agency, Federal Register/Vol. 81, No. 206/Tuesday, Greenhouse Gas Emissions and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles—Phase 2, 2018.*

(2) State

(a) Senate Bill 1389

Senate Bill (SB) 1389 (Public Resources Code Sections 25300–25323; SB 1389) requires the California Energy Commission (CEC) to prepare a biennial integrated energy policy report that assesses major energy trends and issues facing the state's electricity, natural gas, and transportation fuel sectors and provides policy recommendations to conserve resources; protect the environment; ensure reliable, secure, and diverse energy supplies; enhance the state's economy; and protect public health and safety (Public Resources Code Section 25301[a]). The 2017 Integrated Energy Policy Report provides the results of the CEC's assessments of a variety of energy issues facing California including energy efficiency, strategies related to data for improved decisions in the Existing Buildings Energy Efficiency Action Plan, building energy efficiency standards, the impact of drought on California's energy system, achieving 50 percent renewables by 2030, the California Energy Demand Forecast, the Natural Gas Outlook, the Transportation Energy Demand Forecast, Alternative and Renewable Fuel and Vehicle Technology Program benefits updates, update on electricity infrastructure in Southern California, an update on trends in California's sources of crude oil, an update on California's nuclear plants, and other energy issues.

(b) Renewable Portfolio Standard

First established in 2002 under SB 1078, California's Renewables Portfolio Standards (RPS) requires retail sellers of electric services to increase procurement from eligible renewable energy resources to 33 percent by 2020 and 50 percent by 2030.[5] SB 350, signed October 7, 2015, is the Clean Energy and Pollution Reduction Act of 2015. 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 savings in electricity and natural gas final end uses of retail customers through energy efficiency and conservation. On September 10, 2018, former Governor Jerry Brown signed SB 100, which further increased California's RPS and requires retail sellers and local publicly owned electric utilities to procure eligible renewable electricity for 44 percent of retail sales by December 31, 2024, 52 percent by December 31, 2027, and 60 percent by December 31, 2030, and that the California Air Resources Board (CARB) should plan for 100 percent eligible renewable energy resources and zero-carbon resources by December 31, 2045.

The California Public Utilities Commission (CPUC) and the CEC jointly implement the RPS program. The CPUC's responsibilities include: (1) determining annual procurement targets and enforcing compliance; (2) reviewing and approving each investor-owned utility's renewable energy procurement plan; (3) reviewing contracts for RPS-eligible energy; and (4) establishing the standard terms and conditions used in contracts for eligible renewable energy.[6]

[5] *California Public Utilities Commission, California Renewables Portfolio Standard, 2018.*
[6] *California Energy Commission, RPS Program Overview, 2018.*

(c) California Building Standards

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

The California Building Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations, Title 24, Part 6) were adopted to ensure that building construction and system design and installation achieve energy efficiency and preserve outdoor and indoor environmental quality. The current California Building Energy Efficiency Standards (Title 24 standards) are the 2019 Title 24 standards, which became effective on January 1, 2020.[7] The 2019 Title 24 standards continue to improve upon the 2016 Title 24 standards for new construction of, and additions and alterations to, residential and nonresidential buildings which include efficiency improvements to the residential standards for attics, walls, water heating, and lighting, and efficiency improvements to the non-residential standards include alignment with the American Society of Heating and Air-Conditioning Engineers *(*ASHRAE) 90.1-2017 national standards.[8]

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

The California Green Building Standards Code (California Code of Regulations, Title 24, Part 11) are commonly referred to as the CALGreen Code. The 2019 CALGreen Code includes mandatory measures for non-residential development related to site development; energy efficiency; water efficiency and conservation; material conservation and resource efficiency; and environmental quality.[9] The 2019 CALGreen Code improves upon the 2016 CALGreen Code by updating standards for bicycle parking, electric vehicle charging, and water efficiency and conservation. The 2019 CALGreen Code went into effect on January 1, 2020. Refer to **Section IV.E, Greenhouse Gas Emissions**, of this Draft EIR for additional details regarding these standards.

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

In response to the transportation sector accounting for more than half of California's carbon dioxide (CO_2) emissions, Assembly Bill (AB) 1493 (commonly referred to as CARB's Pavley regulations), enacted on July 22, 2002, requires CARB to set greenhouse gas (GHG) emission standards for new passenger vehicles, light duty trucks, and other vehicles manufactured in and after 2009 whose primary use is non-commercial personal transportation. Phase I of the legislation established standards for model years 2009–2016 and Phase II established standards for model years 2017-2025.[10,11] As discussed In subsection (1) *Federal*, above, in March 2020,

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[7] *California Energy Commission, 2019 Building Energy Efficiency Standards for Residential and Nonresidential Buildings, For the 2019 Building Energy Efficiency Standards, Title 24, Part 6, and Associated Administrative Regulations in Part 1, CEC-400-2018-020-CMF, December 2018.*

[8] *California Energy Commission, 2019 Residential Compliance Manual, For the 2019 Building Energy Efficiency Standards, December 2018; and 2019 Nonresidential Compliance Manual, For the 2019 Building Energy Efficiency Standards, December 2018.*

[9] *California Building Standards Commission, 2010 California Green Building Standards Code, (2010).*

[10] *California Air Resources Board, Clean Car Standards—Pavley, Assembly Bill 1493.*

[11] *United States Environmental Protection Agency, EPA and NHTSA Set Standards to Reduce Greenhouse Gases and Improve Fuel Economy for Model Years 2017-2025 Cars and Light Trucks, 2012.*

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

(e) California Air Resources Board

(i) Scoping Plan

AB 32 required California Air Resources Board (CARB) to prepare a Climate Change Scoping Plan for achieving the maximum technologically feasible and cost-effective GHG emission reduction by 2020 (HSC section 38561 (h)). The 2008 Climate Change Scoping Plan proposed a "comprehensive set of actions designed to reduce overall carbon GHG emissions in California, improve our environment, reduce our dependence on oil, diversify our energy sources, save energy, create new jobs, and enhance public health."[12] The 2008 Climate Change Scoping Plan had a range of GHG reduction actions which included direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, market-based mechanisms, such as a cap-and-trade system, and an AB 32 implementation fee to fund the program.

The 2008 Climate Change Scoping Plan called for a "coordinated set of solutions" to address all major categories of GHG emissions. Transportation emissions were addressed through a combination of higher standards for vehicle fuel economy, implementation of the Low Carbon Fuel Standard (LCFS), and greater consideration to reducing trip length and generation through land use planning and transit-oriented development. Buildings, land use, and industrial operations were encouraged and, sometimes, required to use energy more efficiently. Utility energy providers were required to include more renewable energy sources through implementation of the Renewables Portfolio Standard.[13] Additionally, the 2008 Climate Change Scoping Plan emphasized opportunities for households and businesses to save energy and money through increasing energy efficiency. It indicates that substantial savings of electricity and natural gas will be accomplished through "improving energy efficiency by 25 percent."

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

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

  A Green Building strategy will produce greenhouse gas savings through buildings that exceed minimum energy efficiency standards, decrease consumption of potable water, reduce solid waste during construction and operation, and incorporate sustainable

[12] *CARB, Climate Change Scoping Plan, 2008.*

[13] *For a discussion of Renewables Portfolio Standard, refer to subsection California Renewables Portfolio Standard.*

materials. Combined, these measures can also contribute to healthy indoor air quality, protect human health, and minimize impacts to the environment.

- The importance of supporting the Department of Water Resources' work to implement the Governor's objective to reduce per capita water use by 20 percent by 2020. Specific measures to achieve this goal include water use efficiency, water recycling, and reuse of urban runoff. The *Climate Change Scoping Plan* notes that water use requires significant amounts of energy, including approximately one-fifth of statewide electricity.

- Encouraging local governments to set quantifiable emission reduction targets for their jurisdictions and use their influence and authority to encourage reductions in emissions caused by energy use, waste and recycling, water and wastewater systems, transportation, and community design.

As required by HSC Division 25.5, CARB approved the 1990 GHG emissions inventory, thereby establishing the emissions reduction target for 2020. The 2020 emissions reduction target was originally set at 427 million metric tons (MMT) of CO_2e using the GWP values from the IPCC SAR. Forecasting the amount of emissions that would occur in 2020 if no actions are taken was necessary to assess the scope of the reductions California must make to return to the 1990 emissions level by 2020 as required by AB 32. CARB originally defined the "business-as-usual" or BAU scenario as emissions in the absence of any GHG emission reduction measures discussed in the 2008 Climate Change Scoping Plan, as approximately 596 $MMTCO_2e$ (using GWP values from the IPCC SAR). For example, in further explaining CARB's BAU methodology, CARB assumed that all new electricity generation would be supplied by natural gas plants, no further regulatory action would impact vehicle fuel efficiency, and building energy efficiency codes would be held at 2005 standards. Therefore, under these original projections, the State would have had to reduce its 2020 BAU emissions by 28.4 percent to meet the 1990 target of 427 $MMTCO_2e$.

(ii) Advanced Clean Cars Regulation

The Advanced Clean Cars emissions-control program was approved by CARB in 2012 and is closely associated with the Pavley regulations.[14] The program requires a greater number of zero-emission vehicle models for years 2015 through 2025 to control smog, soot and GHG emissions. This program includes the Low-Emissions Vehicle (LEV) regulations to reduce criteria pollutants and GHG emissions from light- and medium-duty vehicles; and the Zero-Emissions Vehicle regulations (ZEV) to require manufacturers to produce an increasing number of pure ZEVs (meaning battery and fuel cell electric vehicles) with the provision to produce plug-in hybrid electric vehicles (PHEV) between 2018 and 2025. In particular, implementation of the ZEV and PHEV regulations reduce transportation fuel consumption by increasing the number of vehicles that are partially or fully electric-powered. Effective November 26, 2019, the federal SAFE Vehicles Rule Part One: One National Program withdraws the California waiver for the GHG and

[14] *California Air Resources Board, Clean Car Standards – Pavley, Assembly Bill 1493, https://ww2.arb.ca.gov/californias-greenhouse-gas-vehicle-emission-standards-under-assembly-bill-1493-2002-pavley, last reviewed January 11, 2017. Accessed December 2021.*

ZEV programs under section 209 of the Clean Air Act, which revokes California's authority to implement the Advanced Clean Cars and ZEV mandates.

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

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

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

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

(f) SB 375 (Sustainable Communities Strategy)

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

Governments (SCAG) is the MPO for the Southern California region, which includes counties of Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial.

(3) Regional

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

SB 375 requires each MPO to prepare a Sustainable Communities Strategy (SCS) in their regional transportation plan. In general, the SCS outlines a development pattern for the region, which, when integrated with the transportation network and other transportation measures and policies, would reduce vehicle miles traveled from automobiles and light duty trucks and thereby reduce GHG emissions from these sources. For the SCAG region, the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), adopted on September 3, 2020, is the current RTP/SCS and is an update to the 2016-2040 RTP/SCS

The 2020-2045 RTP/SCS focuses on the continued efforts of the previous RTP/SCS plans for an integrated approach in transportation and land use strategies in development of the SCAG region through horizon year 2045. The 2020-2045 RTP/SCS projects that the SCAG region will meet the GHG per capita reduction targets established for the SCAG region of 8 percent by 2020 and 19 percent by 2035. Additionally, its implementation is projected to reduce VMT per capita for the year 2045 by 4.1 percent compared to baseline conditions for the year. Rooted in the 2008 and 2012 RTP/SCS plans, the 2020-2045 RTP/SCS includes “Core Vision” that centers on maintaining and better managing the transportation network for moving people and goods while expanding mobility choices by location housing, jobs, and transit closer together, and increasing investments in transit and complete streets.

(4) Local

(a) Green New Deal

In April 2019, Mayor Eric Garcetti released the Green New Deal, a program of actions designed to create sustainability-based performance targets through 2050 designed to advance economic, environmental, and equity objectives.[15] L.A.s Green New Deal is the first four-year update to the City’s first Sustainable City pLAn that was released in 2015 and therefore replaces and supersedes the Sustainable City pLAn.[16] It augments, expands, and elaborates in more detail L.A.’s vision for a sustainable future and it tackles the climate emergency with accelerated targets and new aggressive goals.

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

[15] *City of Los Angeles, L.A.’s Green New Deal (Sustainable City pLAn 2019, April 2019.*
[16] *City of Los Angeles, Sustainable City pLAn, 2015.*

- Reduce potable water use per capita by 22.5 percent by 2025; 25 percent by 2035; and maintain or reduce 2035 per capita water use through 2050.
- Reduce building energy use per square feet for all building types 22 percent by 2025; 34 percent by 2035; and 44 percent by 2050 (from a baseline of 68 British Thermal Units (BTU)/sqft in 2015).
- All new buildings will be net zero carbon by 2030 and 100 percent of buildings will be net zero carbon by 2050.
- Increase cumulative new housing unit construction to 150,000 by 2025; and 275,000 units by 2035.
- Ensure 57 percent of new housing units are built within 1,500 feet of transit by 2025; and 75 percent by 2035.
- Increase the percentage of all trips made by walking, biking, micro-mobility/matched rides or transit to at least 35 percent by 2025, 50 percent by 2035, and maintain at least 50 percent by 2050.
- Reduce VMT per capita by at least 13 percent by 2025; 39 percent by 2035; and 45 percent by 2050.
- Increase the percentage of electric and zero emission vehicles in the city to 25 percent by 2025; 80 percent by 2035; and 100 percent by 2050.
- Increase landfill diversion rate to 90 percent by 2025; 95 percent by 2035 and 100 percent by 2050.
- Reduce municipal solid waste generation per capita by at least 15 percent by 2030, including phasing out single-use plastics by 2028 (from a baseline of 17.85 pounds (lbs.) of waste generated per capita per day in 2011).
- Eliminate organic waste going to landfill by 2028.
- Reduce urban/rural temperature differential by at least 1.7 degrees by 2025; and 3 degrees by 2035.
- Ensure the proportion of Angelenos living within 1/2 mile of a park or open space is at least 65 percent by 2025; 75 percent by 2035; and 100 percent by 2050.

(b) Green Building Code

Chapter IX of the Los Angeles Municipal Code (LAMC) is referred to as the "Los Angeles Green Building Code." which incorporates by reference portions of the CALGreen Code. Specific mandatory requirements and elective measures are provided for three categories: (1) low-rise residential buildings; (2) nonresidential and high-rise residential buildings; and (3) additions and alterations to nonresidential and high-rise residential buildings. The Los Angeles Green Building

Code includes mandatory measures for newly constructed nonresidential and high-rise residential buildings. The Los Angeles Green Building Code includes some requirements that are more stringent than State requirements such as increased requirements for electric vehicle charging spaces and water efficiency, which results in potentially greater energy demand reductions from improved transportation fuel efficiency and water efficiency.

(c) City of Los Angeles Mobility Plan 2035

In August 2015, the City Council adopted Mobility Plan 2035 (Mobility Plan), which serves as the City's General Plan circulation element. The City Council has adopted several amendments to the Mobility Plan since its initial adoption, including the most recent amendment on September 7, 2016.[17] The Mobility Plan incorporates "complete streets" principles and lays the policy foundation for how the City's residents interact with their streets. The Mobility Plan includes five main goals that define the City's high-level mobility priorities:

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

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

b) Existing Conditions

(1) Electricity

Electricity, a consumptive utility, is a man-made resource. The production of electricity requires the consumption or conversion of energy resources, including water, wind, oil, gas, coal, solar, geothermal, and nuclear resources, into energy. The delivery of electricity involves a number of system components, 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.

The Los Angeles Department of Water and Power (LADWP) provides electrical service throughout the City of Los Angeles, serving approximately 4 million people within a service area of approximately 465 square miles. 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.

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

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.[18] Approximately 34.1 percent of LADWP's 2019 electricity purchases were from renewable sources, which is greater than the 31.7 percent statewide percentage of electricity purchases from renewable sources.[19] Furthermore, LADWP is required to procure at least 33 percent of their energy portfolio from renewable sources by 2020[20] and is committed to meeting the requirement of the RPS Enforcement Program to use at least 50 percent of the State's energy from renewables by 2030.[21] The current sources procured by LADWP include wind, solar, and geothermal sources. These sources represent the available offsite renewable sources of energy that would meet the Project's energy demand. Additionally, LADWP is on track to meet 65 percent or more energy from renewable sources by 2036 through the commission of large-scale solar projects (Moapa Southern Paiute Solar, Copper Mountain 3 Solar), expansion of customer-owned rooftop and ground-mounted solar projects, and construction of a new geothermal project in Imperial County.[22]

The Project Site receives electric power service from LADWP via existing underground conduits in South Hope Street and West Pico Boulevard.[23] **Table IV.C-1, Estimated Existing Electricity Demand**, presents the estimated existing annual electricity consumption for the Project Site. As shown in **Table IV.C-1**, The Project Site currently consumes approximately 422,824 kilowatt hours (kWh) of electricity per year.

Table IV.C-1
Estimated Existing Electricity Demand

Use	Electricity Demand (kWh/year)
Commercial	422,824
Hotel	0 [a]
Total	**422,824**

Notes: kWh = kilowatt hour
a The Morrison Hotel has been vacant since 2006 and does not currently consume electricity.
*Source: KPFF, Morrison Hotel Project (1220 – 1246 South Hope Street), Utility Infrastructure Technical Report: Energy, September 23, 2020. See **Appendix D.1** of this Draft EIR.*

(2) Natural Gas

Natural gas is a combustible mixture of simple hydrocarbon compounds (primarily methane) that is used as fuel source. Natural gas consumed in California is obtained from naturally occurring

[18] *Los Angeles Department of Water and Power, 2017 Power Strategic Long-Term Resource Plan, December 2017, page 17.*
[19] *California Energy Commission, Utility Annual Power Content Labels for 2019, October 2020.*
[20] *Data for 2020 has not been published yet.*
[21] *City of Los Angeles, Department of Water and Power, Renewables Portfolio Standard.*
[22] *City of Los Angeles, Department of Water and Power, News Releases, LADWP Achieves 25 Percent Renewable Energy Milestone.*
[23] *KPFF Consulting Engineers, Morrison Hotel Project, Utility Infrastructure Technical Report: Energy for APNs 5139-022-003, 5139-022-004, 5139-022-020, 5139-022-006, and 5139-022-02, 1220-1246 South Hope Street and 427-435 Pico Boulevard, Los Angeles, California, 90015, September 23, 2020, p. 4. See **Appendix D.1** of this Draft EIR.*

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 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 21.6 million customers in more than 500 communities encompassing approximately 20,000 square miles throughout Central and Southern California, from the City of Visalia to the Mexican border.[24]

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.[25] 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.[26] Current capacities in the interstate pipeline system can provide approximately 3,775 million cubic feet of gas per day for Southern California customers.[27] Gas supply available to SoCalGas from California sources averaged 97 million cubic feet (CF) per day in 2019 (the most recent year for which data are available).[28]

The Project Site receives natural gas service from SoCalGas. An existing 4-inch gas main is located along S. Hope Street and a 3-inch gas main is located along W. Pico Boulevard. **Table IV.C-2, Estimated Existing Natural Gas Demand**, presents the estimated existing annual natural gas consumption for the Project Site. As shown in **Table IV.C-2**, the Project Site currently consumes approximately 338,846 CF of natural gas per year (or 928 CF per day).[29]

Table IV.C-2
Estimated Existing Natural Gas Demand

Use	Natural Gas Demand (CF/year)
Commercial	338,846
Hotel	0 [a]
Total	**338,846**

Notes: CF = cubic feet
a The Morrison Hotel has been vacant since 2006 and does not currently consume natural gas.
*Source: KPFF, Morrison Hotel Project (1220 – 1246 South Hope Street), Utility Infrastructure Technical Report: Energy, September 23, 2020. See **Appendix D.1** of this Draft EIR.*

[24] *Southern California Gas Company, Company Profile Website, accessed October 21, 2020.*
[25] *California Gas and Electric Utilities, 2020 California Gas Report, page 111.*
[26] *California Gas and Electric Utilities, 2020 California Gas Report, pages 111-112.*
[27] *The California Gas and Electric Utilities, 2020 California Gas Report, Figure 20 – Receipt Point and Transmissions Zone Firm Capacities, page 114.*
[28] *California Gas and Electric Utilities, 2020 California Gas Report, page 111,*
[29] *Daily consumption was determined by dividing the yearly consumption amount by 365 days/year.*

(3) Transportation

According to the California Energy Commission (CEC), transportation accounted for nearly 41.1 percent of California's total energy consumption in 2017.[30] Petroleum-based fuels currently account for 90 percent of California's transportation energy sources.[31] 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. According to the California Department of Tax and Fee Administration, total statewide gasoline consumption has increased by 6 percent from 2011 to 2019.[32] However, this increase is mainly due to population increases as the per capita gasoline consumption is showing a downward trend.[33] The CEC also forecasts a decline in gasoline demand due to increased fuel efficiency and increased use of alternative fuels, such as natural gas, biofuels, and electricity.[34] Revisions to EPA fuel economy testing methods in 2006 as well as to manufacturing calculations in 2017 have also resulted in improved fuel efficiency of gasoline- and diesel-powered vehicles, resulting in a reduction of fuel consumption. According to fuel sales data from the California Energy Commission, fuel consumption in Los Angeles County was approximately 3.64 billion gallons of gasoline and 527 million gallons of diesel fuel in 2018.[35] Gasoline-fueled vehicles accounted for approximately 93.7 percent of the total VMT for 2018 and diesel-fueled vehicles accounted for approximately 5.4 percent of the total VMT.[36] Natural-gas-powered and electric vehicles accounted for approximately 0.8 percent of the total VMT.

Although the existing Project Site contains a commercial use that likely generates an insignificant number of VMT, in order to provide the most conservative assessment of transportation-related energy consumption, consistent with the Traffic Assessment (**Appendix J.1**), this analysis assumes that the existing condition does not currently generate VMT.

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30 *California Energy Commission, 2019 Integrated Energy Policy Report, adopted February 20, 2020.*

31 *California Energy Commission, 2020-2023 Investment Plan Update for the Clean Transportation Program, November 2020, page 10.*

32 *California Department of Tax and Fee Administration, Fuel Taxes Statistics & Reports, www.cdtfa.ca.gov/taxes-and-fees/spftrpts.htm, accessed November 18, 2020.*

33 *Eno Center for Transportation, "How Have Different State Populations Changed Their Gasoline Consumption?," available at: https://www.enotrans.org/article/how-have-different-state-populations-changed-their-gasoline-consumption/, accessed April 29, 2021.*

34 *California Energy Commission, 2019 Integrated Energy Policy Report, February 2020, page 228.*

35 *California Energy Commission, California Retail Fuel Outlet Annual Reporting (CEC-A15) Results, 2018. Diesel is adjusted to account for retail (48%) and non-retail (52%) diesel sales.*

36 *Based on the California Air Resources Board on-road vehicle emissions factor model, EMFAC2017 (Modeling input: Los Angeles County; Fleet Aggregate; Annual; 2018). The modeling input values are considered generally representative of conditions for the region and representative of the majority of vehicles associated with Project-related VMT.*

3. Project Impacts

a) Thresholds of Significance

Appendix G of the State CEQA Guidelines provides checklist items for the evaluation of impacts related to energy resources. In addition, Appendix F of the *State CEQA Guidelines* was prepared in response to the requirement in Public Resources Code Section 21100(b)(3) that an EIR shall include "[m]itigation measures proposed to minimize the significant effects on the environment, including, but not limited to, measures to reduce the wasteful, inefficient, and unnecessary consumption of energy."

In analyzing potential impacts regarding energy, the City has determined to use the Appendix G questions as the thresholds of significance for the Project. The factors below from the L.A. CEQA Thresholds Guide will be used to assist in analyzing the Appendix G questions.

Accordingly, the Project would have a significant impact related to energy if it would:

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

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

With regard to Threshold (a), this analysis relies upon Appendix F of the *State CEQA Guidelines*, which was prepared in response to the requirement in Public Resources Code 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 reduces the wasteful, inefficient, and unnecessary consumption of energy."

In accordance with Appendix F and the Thresholds Guide, the following factors 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;

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; and

8. Whether the project conflicts with adopted energy conservation plans.

With regard to Threshold (b), the Project is 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. While not an adopted plan, L.A.'s Green New Deal (Sustainable City pLAn 2019) accelerates GHG-reduction goals through milestones and initiatives to, among other things, increase renewable energy supply and reduce building energy use, water consumption, and per capita VMT, including through reduction in the amount of solid waste generated. Also, as discussed in **Section IV.E, Greenhouse Gas Emissions**, of this Draft EIR, the Project would be consistent with the SCAG 2016-2040 and 2020-2045 RTP/SCS, which both include goals to reduce VMT and corresponding reduction in fuel consumption.

b) Methodology

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. Specific analysis methodologies are discussed below. Detailed supporting calculations are provided in **Appendix D.2, Energy Calculations,** of this Draft EIR, and are based on the same assumptions as are used in **Section IV.A, Air Quality**, **Section IV.E, Greenhouse Gas Emissions**, and **Section IV.K, Transportation**, of this Draft EIR.

(1) Construction

Construction electricity was estimated for lighting and construction equipment that would use electricity as an alternative to diesel fuel and for water usage from dust control. Calculation assumptions were based on CalEEMod (Version 2016.3.2) models prepared for the air quality and greenhouse gas emissions analyses presented in **Section IV.A, Air Quality,** and **Section IV.E, Greenhouse Gas Emissions,** of this Draft EIR, respectively. CalEEMod is a state-approved emissions model that, in addition to outputting emissions, also provides for estimation of annual electricity, natural gas, and water use. Electricity demand by construction equipment was estimated using default horsepower and load factors from CalEEMod and Project-specific construction schedules and hours for a diesel generator. As SCAQMD recommends the use of electricity from LADWP instead of diesel generators, the equivalent use of electrical power was assumed for the Project.

Construction activities typically do not involve the consumption of natural gas; therefore, consumption of natural gas during construction is not an energy demand that requires quantification or analysis.

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 EMFAC2017 model for 2021 (the construction start year). EMFAC provides the total annual VMT and fuel consumed for each type of vehicle. CalEEMod default trip lengths were used for worker commutes and vendor trips, however, a longer, more conservative, Project-specific trip length (29 miles to Sunshine Canyon Landfill) for haul trips during demolition and grading was used. Consistent with CalEEMod, construction worker trips were assumed to include a mix of light duty gasoline automobiles and light duty gasoline trucks. Construction vendor and delivery/haul trucks were assumed to be heavy-duty diesel trucks.

Detailed supporting calculations of construction energy consumption are provided in **Appendix D.2** of this Draft EIR.

(2) Operation

Annual consumption of electricity associated with the Project's electrical equipment and annual consumption of natural gas were taken from the Energy Report, which calculated the consumption based on demand factors provided in CalEEMod, which are based on the 2016 Title 24 standards and went into effect on January 1, 2017. The CEC estimated that the 2016 Title 24 standards are 28 percent more efficient than the 2013 Title 24 standards for residential construction and five percent more efficient for non-residential construction.[37] It should be noted that the 2016 Title 24 standards have been superseded by the 2019 Title 24 standards; however, CalEEMod has not yet been updated to incorporate the revised standards. While the Project would be required to adhere to the 2019 Title 24 standards, the Project's estimated energy consumption was calculated based on CalEEMod land-use-based demand factors, which, as described, incorporate the standards and regulations of the 2016 Title 24 code. Because the 2019 Title 24 standards are more stringent than the 2016 version, the CalEEMod outputs and corresponding energy consumption calculations provide a more conservative estimate of the Project's energy consumption. Annual consumption of electricity usage associated with the supply and conveyance of water was calculated using demand factors provided in CalEEMod as part of the GHG analysis included in **Section IV.E, Greenhouse Gas Emissions**, of this Draft EIR, and added to the electricity associated with the Project's electrical equipment.

The Project's estimated energy demands were also analyzed relative to LADWP's and SoCalGas' existing and planned energy supplies in 2024 (i.e., the Project buildout year) to determine if these two energy utility companies would be able to meet the Project's energy demands. These calculations were used to determine if the Project would cause the wasteful, inefficient, and/or unnecessary consumption of energy as required by Appendix F of the *State CEQA Guidelines*. The assessment also includes a discussion of the Project's compliance with relevant energy-

[37] *California Energy Commission, 2016 Building Energy Efficiency Standards Adoption Hearing presentation, June 10, 2015.*

related regulations that would require the Project to incorporate energy and water efficiency designs.

Energy impacts associated with transportation of residents, employees, and visitors to and from the Project Site during operation were also assessed. The daily trips and VMT used in this analysis were based on the Project-specific Traffic Assessment (see **Appendix J.1**). The Project's daily trip generation and VMT was calculated consistent with LADOT's Transportation Impact Study Guidelines. Consistent with these guidelines, the VMT Calculator was developed by the City and LADOT to comply with SB 743, which requires lead agencies to adopt VMT criteria to determine transportation related impacts. The daily Project-related trips and VMT 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.E, 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 for 2023 (the Project's buildout year) as determined by EMFAC2017. The vehicle fleet mix for vehicles anticipated to visit the Project Site was calculated consistent with the CalEEMod default for Los Angeles County.

Detailed supporting calculations of operational energy consumption are provided in **Appendix D.2** of this Draft EIR.

c) Project Design Features

No specific project design features are proposed with regard to energy conservation and infrastructure.

d) Analysis of Project Impacts

Threshold a) Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

(1) Impact Analysis

The following analysis considers the eight factors identified in the Thresholds of Significance subsection to determine whether this significance threshold 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 and operations). For the purposes of this analysis, Project maintenance would include activities

such as repair of structures, landscaping, and architectural coatings, which are included as part of Project operations. Project removal activities would include demolition of the structures proposed by the Project at some point in the future. 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. 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).

Construction would occur over approximately 36 months and is expected to be completed in 2024. **Table IV.C-3**, **Summary of Energy Use During Project Construction**, presents the estimated energy consumption during construction. As shown, construction of the Project would require a total of 218,803 kWh of electricity, 65,512 gallons of gasoline, and 142,243 gallons of diesel.

Table IV.C-3
Summary of Energy Use During Project Construction [a]

Source	Quantity[b]
Electricity	
Water Consumption [c]	5,527 kWh
Lighting, Equipment, Other Electrical Power [d]	218,803 kWh
Total Electricity	**218,803 kWh**
Gasoline	
On-Road Construction Equipment [e]	65,512 gallons
Off-Road Construction Equipment [f]	0 gallons
Total Gasoline	**65,512 gallons**
Diesel	
On-Road Construction Equipment [e]	87,870 gallons
Off-Road Construction Equipment [f]	54,373 gallons
Total Diesel	**142,243 gallons**

kWh = kilowatt hours

*a Detailed supporting calculation sheets are provided in **Appendix D.2** of this Draft EIR.*

b Calculated energy consumption rounded to the nearest hundred. Addition may be off due to this rounding. See Appendix B for CalEEMod output sheets for exact figures.

c Electricity usage associated with the supply and conveyance of water used for dust control during construction was calculated using data from the CalEEMod outputs prepared for the greenhouse gas analysis.

d Electricity used to power lighting, electronic equipment, and other construction activities necessitating electrical power was calculated based on CalEEMod defaults for generators (i.e. horsepower, load factors, and daily usage). As the SCAQMD recommends the use of electricity instead of diesel generators, the equivalent electricity consumption was calculated.

e On-road construction equipment encompasses construction worker trips, vendor trips, and haul trips.

f Off-road construction equipment encompasses construction equipment usage on the Project Site (e.g., excavators, cranes, forklifts, etc.).

Source: EcoTierra Consulting, Inc., 2020.

a. Electricity

During construction, electricity would be supplied to the Project Site by LADWP and, where available, would be obtained from the existing electrical lines that connect to the Project Site or solar-powered generators rather than temporary diesel- or gasoline-powered generators, as described in project design feature PDF EPNGTI-1 in **Section IV.M.4, Utilities and Service Systems – Electric Power, Natural Gas, and Telecommunications Infrastructure**, of this Draft EIR. As shown in **Table IV.C-3**, construction of the Project would require a total of approximately 218,803 kWh of electricity. The estimated construction electricity usage over the anticipated construction period represents approximately 2.9 percent[38] of the Project's estimated net annual operational electricity demand, which, as discussed below, would be within the supply and infrastructure service capabilities of LADWP.

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. Electricity use from construction would be short-term, limited to working hours, used for necessary construction-related activities, and represent a small fraction of the Project's net annual operational electricity. Although Title 24 requirements typically apply to energy usage for buildings, long-term construction lighting (longer than 120 days) providing illumination for the Project Site and staging areas would also comply with applicable Title 24 requirements, which includes limits on the wattage allowed per specific area, resulting in the conservation of energy.[39] 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.[40]

b. Natural Gas

As previously detailed, 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 natural gas demand generated by construction.

c. Transportation-Related Energy

As shown in **Table IV.C-3**, on- and off-road vehicles would consume an estimated 65,512 gallons of gasoline and approximately 142,243 gallons of diesel fuel throughout the Project's construction. For comparison purposes only and not for the purpose of determining significance, the fuel usage during Project construction would represent approximately 0.002 percent of the 2021 (the Project's construction start year) annual on-road gasoline-related energy consumption and 0.02 percent of the 2021 annual diesel fuel-related energy consumption in Los Angeles County as

[38] *The percentage is derived by taking the total amount of electricity usage during construction (218,803 kWh) and dividing that number by the annual amount of net electricity usage during operation (7,428,839 kWh) to arrive at 2.9 percent.*

[39] *California Building Energy Efficiency Standards, Title 24, Part 6, §110.9, §130.0, and §130.2.*

[40] *Energy Independence and Security Act of 2007. (Pub.L. 110-140).*

projected by CARB's EMFAC on-road vehicle emissions factor model.[41] Transportation fuels (gasoline and diesel) are produced from crude oil, which can be domestic or imported from various regions around the world. Based on current proven reserves, crude oil production would be sufficient to meet over 50 years of worldwide consumption.[42]

Construction of the Project would comply with State and federal regulations, such as the anti-idling regulation in accordance with Section 2485 in Title 13 of the California Code of Regulations, and fuel requirements in accordance with Section 93115 in Title 17 of the California Code of Regulations, which would reduce the inefficient, wasteful, and unnecessary consumption of energy, such as petroleum-based transportation fuels, from unnecessary idling fuel combustion. While these required regulations are intended to reduce construction emissions, compliance with the anti-idling and emissions regulations would also result in fuel savings. Compliance with required regulations will be enforced by construction contractors. Project-related trips from on-road vehicles (i.e., haul trucks, worker vehicles) would also benefit from Pavley and Low Carbon Fuel Standards which are designed to reduce vehicle GHG emissions, but would also result in fuel savings in addition to compliance with Corporate Average Fuel Economy standards.

In addition, the Project would divert mixed construction and demolition debris to City- certified construction and demolition waste processors using City-certified waste haulers, consistent with the Los Angeles City Council approved Ordinance No. 181519 (LAMC Chapter VI, Article 6, Section 66.32-66.32.5 (Purpose; Solid Waste Hauler Permit Requirements; AB 939 Compliance Fees; Violations, Penalties, and Permit Suspension and Revocation; Compliance Permit Terms and Conditions; Indemnifications, respectively). Diversion of mixed construction and demolition debris would reduce truck trips to landfills, which are typically located some distance away from City centers, and increase the amount of waste recovered (e.g., recycled, reused, etc.) at material recovery facilities, thereby further reducing transportation fuel consumption.

(ii) Operation

During operation of the Project, energy would be consumed for multiple purposes, including, but not limited to, heating/ventilating/air conditioning (HVAC); refrigeration; water heating; lighting; and the use of electronics, equipment, and appliances. Energy would also be consumed during Project operations related to water usage, solid waste disposal, and vehicle trips to and from the Project Site by residents, employees, and visitors. As shown in **Table IV.C-4, Summary of Annual Net New Energy Use During Project Operation**, the Project's net new energy demand would be approximately 7,428,839 kWh of electricity per year, 21,758,597 CF of natural gas per year, 290,689 gallons of gasoline per year, and 17,722 gallons of diesel fuel per year.

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[41] *California Air Resources Board, EMFAC2017 on-road vehicle emissions factor model, EMFAC2017 (Modeling input: Los Angeles County; Fleet Aggregate; Annual; 2021). The modeling input values are considered generally representative of conditions for the region and representative of the majority of vehicles associated with Project-related VMT. According to EMFAC2017 modeling, Los Angeles County on-road vehicles will consume 3.88 billion gallons of gasoline and 650 million gallons of diesel in 2021 (the Project's construction-start year).*

[42] *BP Global, Oil Reserves, 2018.*

Table IV.C-4
Summary of Annual Energy Use During Project Operation [a]

Source	Estimated Energy Demand [b]
Electricity [c]	
Structures [d]	7,502,588 kWh
Water [e]	349,075 kWh
Total Project Electricity	*7,851,663 kWh*
Less Existing Electricity	422,824 kWh
Total Net Electricity	**7,428,839 kWh**
Natural Gas [c]	
Structures [d]	22,097,443 CF
Total Project Natural Gas	*22,097,443 CF*
Less Existing Natural Gas	338,846 CF
Total Net Natural Gas	**21,758,597 CF**
Transportation [f]	
Gasoline	290,689 gallons
Less Existing Gasoline	*0 gallons* [g]
Total Net Gasoline	**290,689 gallons**
Diesel	17,722 gallons
Less Existing Diesel	*0 gallons* [g]
Total Net Diesel	**17,722 gallons**

kWh = kilowatt hours
CF = cubic feet
*a Detailed supporting calculation sheets are provided in **Appendix D.2** of this Draft EIR.*
b Calculated energy consumption rounded to the nearest hundred. Addition may be off due to this rounding.
c Electricity and natural gas estimates assume compliance with applicable CALGreen and Title 24, Part 6 requirements.
*d Electricity and natural gas consumption associated with operation of Project structures was taken from the Energy Report (**Appendix D.1**) prepared for the Project, which calculated the consumption based on demand factors provided in CalEEMod, which are based on the 2016 Title 24 standards.*
*e Electricity required for the delivery and distribution of water was calculated using demand factors provided in CalEEMod as part of the GHG analysis. Detailed supporting calculation sheets are provided in **Appendix D.2** of this Draft EIR.*
f Gasoline and diesel consumption rates were Based on the Project's annual VMT, and were calculated using the county-specific miles per gallon and fleet mix as determined by EMFAC2017 for the Project-specific buildout year (2024).
*g In order to provide the most conservative assessment of transportation-related energy consumption, consistent with the Traffic Assessment (**Appendix J.1**), this analysis assumes that the existing condition does not currently generate VMT.*
Source: EcoTierra Consulting, Inc., 2020.

a. Electricity

As shown in **Table IV.C-4**, with compliance with 2016 Title 24 standards and applicable 2016 CALGreen requirements, buildout of the Project would result in a projected net increase in the on-site demand for electricity totaling approximately 7,428,839 kWh per year. However, it should be noted that CalEEMod demand factors are based on 2016 standards and requirements and because the Project would be required to comply with 2019 standards, which are more stringent, this projected demand is considered conservative. Based on LADWP's 2017 Power Strategic Long-Term Resources Plan, LADWP forecasts that its total energy sales in the 2024–2025 fiscal

year (the Project's buildout year) will be 23,286 GWh of electricity.[43] As such, the Project-related net increase in annual electricity consumption of 7,428,839 kWh per year would represent approximately 0.03 percent of LADWP's projected sales in 2024.

In addition to complying with Title 24 standards and CALGreen requirements, the Project would also implement energy efficient water features (see PDFs WAT-1 through WAT-4 in **Section IV.M.1, Utilities and Service Systems – Water**, of this Draft EIR), lighting, and mechanical equipment, which are identified as sustainable design features in compliance with code requirements, as discussed in **Section II, Project Description** of this Draft EIR. These measures would reduce the Project's energy demand. In addition, 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 accounted for 34.1 percent of LADWP's overall energy mix in 2019, the most recent year for which data are available.[44] This represents the available off-site renewable sources of energy that could meet the Project's energy demand. With regard to on-site renewable energy sources, as required by 2019 Title 24, the Project would include the provision of conduit that is appropriate for future photovoltaic and solar thermal collectors.

b. Natural Gas

As shown in **Table IV.C-4**, with compliance with 2016 Title 24 standards and applicable 2016 CALGreen requirements, buildout of the Project would result in a projected net increase in the on-site demand for natural gas totaling approximately 21,758,597 CF per year, or approximately 59,613 CF per day. However, as with electricity, it should be noted that CalEEMod demand factors are based on 2016 standards and requirements and because the Project would be required to comply with 2019 standards, which are more stringent, this projected demand is considered conservative. Based on the 2020 California Gas Report, the California Energy and Electric Utilities estimates natural gas consumption within SoCalGas' planning area will be approximately 2,349 million CF per day in 2024 (the Project's buildout year).[45] Accordingly, the Project would account for approximately 0.003 percent of the daily 2024 forecasted consumption in SoCalGas' planning area. According to the United States Energy Information Administration (EIA), the United States currently has over 80 years of natural gas reserves based on 2018 consumption.[46] Compliance with energy standards is expected to result in more efficient use of natural gas (lower consumption) in future years.

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 also implement energy efficient building design (such as window glazing and window frames) and mechanical equipment, which are identified as sustainable design features

[43] *LADWP defines its future electricity supplies in terms of sales that will be realized at the meter. LADWP, 2017 Power Strategic Long-Term Resource Plan, Appendix A, December 2017.*
[44] *California Energy Commission, Utility Annual Power Content Labels for 2019, October 2020.*
[45] *California Gas and Electric Utilities, 2020 California Gas Report, page 145.*
[46] *U.S. Energy Information Administration, Frequently Asked Questions, How much natural gas does the United States have, and how long will it last?*

in compliance with code requirements, as discussed in **Section II, Project Description**, of this Draft EIR.

c. Transportation-Related Energy

As summarized in **Table IV.C-4**, the Project's estimated petroleum-based fuel usage would be approximately 290,689 gallons of gasoline and 17,722 gallons of diesel per year. For comparison purposes, the fuel usage during Project operation would represent approximately 0.008 percent of the 2024 (the Project's buildout year) annual on-road gasoline-related energy consumption and 0.003 percent of the 2024 annual diesel fuel-related energy consumption in Los Angeles County, as projected by CARB's EMFAC on-road vehicle emissions factor model.[47] Transportation fuels (gasoline and diesel) are produced from crude oil, which can be domestic or imported from various regions around the world. Based on current proven reserves, crude oil production would be sufficient to meet over 50 years of worldwide consumption.[48]

Some percentage of automobiles and trucks driven by project residents, visitors and employees would benefit from CAFE fuel economy standards, which would result in more efficient use of transportation fuels (lower consumption). Project-related vehicles would also benefit from auto manufacturers' compliance with Pavley and Low Carbon Fuel Standards which are designed to reduce vehicle GHG emissions, but would also result in fuel savings. Transportation fuel efficiency would improve as future Project residents, visitors, and employees replace their privately owned or leased older vehicle models with newer vehicle models that achieve greater fuel efficiency.

The Project would support statewide efforts to improve transportation energy efficiency and reduce transportation energy consumption with respect to private automobiles. The Project's future residents, visitors, and employees would utilize vehicles that comply with CAFE fuel economy standards and the Pavley standards, which are designed to result in more efficient use of transportation fuels. Transportation fuel efficiency would improve as these future Project residents, visitors, and employees replace their privately owned or leased older vehicle models with newer vehicle models that achieve greater fuel efficiency. The Project's mixed-use design and its increase in density located on an infill site in close proximity to existing transit, including rail and bus lines, its proximity to existing off-site retail, restaurant, entertainment, commercial, and job destinations, and its walkable and bike-able environment support the conclusion that that the Project has been properly designed and located so that its development would achieve a reduction in VMT compared to a project with the same land uses that does not have the location-specific nor the Project design-specific benefits nor the infill nature of the Project.

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[47] *California Air Resources Board, EMFAC2017 on-road vehicle emissions factor model, EMFAC2017 (Modeling input: Los Angeles County; Fleet Aggregate; Annual; 2024). The modeling input values are considered generally representative of conditions for the region and representative of the majority of vehicles associated with Project-related VMT. According to EMFAC2017 modeling, Los Angeles County on-road vehicles will consume 3.58 billion gallons of gasoline and 642 million gallons of diesel in 2024 (i.e., the Project's buildout year).*

[48] *BP Global, Oil reserves.*

(b) The effects of the project on local and regional energy supplies and on requirements for additional capacity.

(i) Construction

As discussed above, electricity would be consumed during Project construction activities. The electricity demand at any given time would vary throughout the construction period based on the construction activities being performed, and would cease upon completion of construction. Electricity would be supplied to the Project Site by LADWP and would be obtained from the existing electrical lines that connect to the Project Site. When not in use, electric equipment would be powered off so as to avoid unnecessary energy consumption. Construction activities, including the construction of new buildings and facilities, typically do not involve the consumption of natural gas. Accordingly, natural gas would not be supplied to support Project construction activities; thus, there would be no demand generated by construction. As stated above, transportation fuel usage during Project construction activities would represent approximately 0.002 percent of the 2021 (the Project's construction start year) annual on-road gasoline-related energy consumption and 0.02 percent of the 2021 annual diesel fuel-related energy consumption within Los Angeles County, respectively, as projected by CARB's EMFAC on-road vehicle emissions factor model.[49] Construction transportation energy would be provided by existing retail service stations and from existing mobile fuel services that are typically needed to deliver fuel to a construction site to refuel the off-road construction equipment at the Project Site and no new facilities would be expected to be required. As energy consumption during construction would not be substantial, the Project would not materially affect the local and/or regional energy supplies and would not require additional capacity.

(ii) Operation

As stated above, based on LADWP's 2017 Power Strategic Long-Term Resource Plan, LADWP forecasts that its total energy sales in the 2024–2025 fiscal year (the Project's buildout year) will be 23,286 GWh of electricity.[50] As such, the Project-related net increase in annual electricity consumption of 7,428,839 kWh per year would represent approximately 0.03 percent of LADWP's projected sales in 2024. Furthermore, LADWP has confirmed the Project's electricity demand can be served by the existing facilities in the Project area by specifically indicating "[t]he estimated power requirement for this proposed project is part of the total load growth forecast for the City and has been taken into account in the planned growth of the power system."[51] Based on these

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[49] *California Air Resources Board, EMFAC2017 on-road vehicle emissions factor model, EMFAC2017 (Modeling input: Los Angeles County; Fleet Aggregate; Annual; 2021). The modeling input values are considered generally representative of conditions for the region and representative of the majority of vehicles associated with Project-related VMT. According to EMFAC2017 modeling, Los Angeles County on-road vehicles will consume 3.88 billion gallons of gasoline and 650 million gallons of diesel in 2021 (the Project's construction-start year).*

[50] *LADWP defines its future electricity supplies in terms of sales that will be realized at the meter. LADWP, 2017 Power Strategic Long-Term Resource Plan, Appendix A, December 2017.*

[51] *KPFF Consulting Engineers, Morrison Hotel Project, Utility Infrastructure Technical Report: Energy for APNs 5139-022-003, 5139-022-004, 5139-022-020, 5139-022-006, and 5139-022-02, 1220-1246 South Hope Street and 427-435 Pico Boulevard, Los Angeles, California, 90015, September 23, 2020, Exhibit 1. See* ***Appendix D.1*** *of this Draft EIR.*

factors, it is anticipated that LADWP's existing and planned electricity capacity and electricity supplies would be sufficient to serve the Project's electricity demand.

As stated above, buildout of the Project would result in a projected net increase in the on-site demand for natural gas totaling approximately 21,758,597 CF per year, or approximately 59,613 CF per day. Based on the 2020 California Gas Report, the California Energy and Electric Utilities estimates natural gas consumption within SoCalGas' planning area will be approximately 2,349 million CF per day in 2024 (the Project's buildout year) and supplies in 2024 are projected to be 3,435 million CF per day.[52] This report predicts gas demand for all sectors (residential, commercial, industrial, energy generation and wholesale exports) and presents best estimates, as well as scenarios for hot and cold years. The Project would account for approximately 0.003 percent of the 2024 forecasted consumption in SoCalGas' planning area and approximately 0.005 percent of the 1,086 million CF per day of additional supplies available,[53] and therefore would fall within SoCalGas' projected consumption and supplies for the area. Furthermore, SoCalGas has confirmed that the Project's natural gas demand can be served by the facilities in the Project area.[54] As such, it is expected that SoCalGas' existing and planned natural gas capacity and supplies will be sufficient to serve the Project's demand.

As stated above, at buildout, the Project would consume a net increase of approximately 290,689 gallons of gasoline and 17,722 gallons of diesel per year. For comparison purposes, the transportation-related fuel usage for the Project would represent approximately 0.008 percent of the 2024 (the Project's buildout year) annual on-road gasoline-related energy consumption and 0.003 percent of the 2024 annual diesel fuel-related energy consumption in Los Angeles County, as projected by CARB's EMFAC on-road vehicle emissions factor model.[55] Operational transportation energy would be provided by existing retail service stations and no new retail service stations would be expected to be required. Transportation fuels (gasoline and diesel) are produced from crude oil, which can be domestic or imported from various regions around the world. Based on current proven reserves, crude oil production would be sufficient to meet over 50 years of worldwide consumption.[56] As such, it is expected that existing and planned transportation fuel supplies will be sufficient to serve the Project's demand.

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[52] *California Gas and Electric Utilities, 2020 California Gas Report, page 145.*

[53] *1,086 million CF per day of additional supplies available derived by subtracting the anticipated consumption (2,349 million CF per day) from the available supplies (3,435 million CF per day).*

[54] *KPFF Consulting Engineers, Morrison Hotel Project, Utility Infrastructure Technical Report: Energy for APNs 5139-022-003, 5139-022-004, 5139-022-020, 5139-022-006, and 5139-022-02, 1220-1246 South Hope Street and 427-435 Pico Boulevard, Los Angeles, California, 90015, September 23, 2020, Exhibit 2. See* ***Appendix D.1*** *of this Draft EIR.*

[55] *California Air Resources Board, EMFAC2017 on-road vehicle emissions factor model, EMFAC2017 (Modeling input: Los Angeles County; Fleet Aggregate; Annual; 2024). The modeling input values are considered generally representative of conditions for the region and representative of the majority of vehicles associated with Project-related VMT. According to EMFAC2017 modeling, Los Angeles County on-road vehicles will consume 3.58 billion gallons of gasoline and 642 million gallons of diesel in 2024 (i.e., the Project's buildout year).*

[56] *BP Global, Oil reserves.*

As energy consumption during operation would be relatively negligible, the Project would not affect the local and/or regional energy supplies and would not require additional capacity.

(c) The effects of the project on peak and base period demands for electricity and other forms of energy.

As discussed above, electricity demand during construction and operation of the Project would have a negligible effect on the overall capacity of the LADWP's power grid and base load conditions. With regard to peak load conditions, the LADWP power system experienced an all-time high peak of 6,502 MW on August 31, 2017.[57] 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 2024-2025 (the Project's buildout year), the base case peak demand for the power grid is expected to be 6,029 MW.[58] Under peak conditions, the Project would consume a net increase of 7,428,839 kWh on an annual basis which, assuming 12 hours of active electricity demand per day, would be equivalent to approximately 1,696 kW (peak demand assuming 4,380 hours per year of active electricity demand).[59] In comparison to the LADWP power grid base peak load of 6,029 MW for 2024-2025, the Project's estimated peak demand would represent approximately 0.03 percent of the LADWP base peak load conditions.[60] 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.

(i) Construction

Construction equipment would comply with federal, State, and regional requirements where applicable. With respect to truck fleet operators, the USEPA and NHSTA have adopted fuel efficiency standards for medium- and heavy-duty trucks. The Phase 1 heavy- duty truck standards apply to combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles for model years 2014 through 2018 and result in a reduction in fuel consumption from 6 to 23 percent over the 2010 baseline, depending on the vehicle type.[61] USEPA and NHTSA also adopted the Phase 2 heavy-duty truck standards, which cover model years 2021 through 2027 and require the phase-in of a 5 to 25 percent reduction in fuel consumption over the 2017 baseline depending on the compliance year and vehicle type.[62] The energy modeling for trucks does not take into account specific fuel reductions from these regulations, since they would apply to fleets as they incorporate newer trucks meeting the regulatory standards; however, these regulations would

[57] *LADWP, 2017 Power Strategic Long-Term Resource Plan, December 2017, page 6.*
[58] *LADWP, 2017 Power Strategic Long-Term Resource Plan, Appendix A, Table A-1, December 2017.*
[59] *Calculated as follows: 7,428,839 kWh / 4,380 hours = 1,696 kW.*
[60] *Calculated as follows: 1,696 kW / 6,029,000 kW = 0.03 percent.*
[61] *California Energy Commission, Tracking Progress Website – Energy Efficiency Documents, Last Updated: September 2018.*
[62] *BP Global, Oil Reserves, 2018.*

have an overall beneficial effect on reducing fuel consumption from trucks over time as older trucks are replaced with newer models that meet the standards.

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

(ii) Operation

Electricity and natural gas usage during Project operations would be minimized through incorporation of applicable Title 24 standards, applicable CALGreen requirements, and the Los Angeles Green Building Code, in accordance with the applicable version of these standards at the time of building permit issuance. Furthermore, the Project incorporates energy-conservation measures such as installing energy efficient appliances. The Project would also incorporate water conservation features, such as installing water-saving fixtures and implementing water-efficient landscaping techniques.

With respect to operational transportation-related fuel usage, the Project would support statewide efforts to improve transportation energy efficiency and reduce transportation energy consumption with respect to private automobiles. The Project's future residents, visitors, and employees would utilize vehicles that comply with CAFE fuel economy standards and the Pavley standards, which are designed to result in more efficient use of transportation fuels. Transportation fuel efficiency would improve as these future Project residents, visitors, and employees replace their privately owned or leased older vehicle models with newer vehicle models that achieve greater fuel efficiency. The Project's mixed use design and its increase in density located on an infill site in close proximity to existing transit, including rail and bus lines, its proximity to existing off-site retail, restaurant, entertainment, commercial, and job destinations, and its highly walkable environment support the conclusion that that the Project has been properly designed and located so that its development would achieve a reduction in VMT compared to a project with the same land uses that does not have the location-specific nor the Project design-specific benefits nor the infill nature of the Project. Therefore, operation of the Project would comply with existing energy standards.

(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 2017 Power Strategic Long-Term Resource Plan identifies adequate resources (natural gas, coal) to support future generation capacity, and, as discussed above, LADWP's existing and planned electricity capacity and supplies would be sufficient to serve the Project's electricity

demand.[63] As discussed above in the Regulatory Framework, one of the objectives of SB 350 was to increase the procurement of California's electricity from renewable sources from 33 percent to 50 percent by 2030. Accordingly, LADWP is required to procure at least 50 percent of its energy portfolio from renewable sources by 2030. The current sources of LADWP's renewable energy include wind, solar, and geothermal sources. These sources accounted for 34.1 percent of LADWP's overall energy mix in 2019, the most recent year for which data are available.[64] These represent the available off-site renewable sources of energy that would meet the Project's energy demand. LADWP has committed to providing an increasing percentage of its energy portfolio from renewable sources so as to exceed the Renewables Portfolio Standard requirements, by increasing to 50 percent by 2025 (5 years before the 2030 requirement), 55 percent by 2030, and 65 percent by 2036.[65] Furthermore, with the passage of SB 100, LADWP will be required to update its long-term plans to demonstrate compliance with the update requirements including providing 60 percent of its energy portfolio from renewable sources by December 31, 2030 and ultimately planning for 100 percent eligible renewable energy resources and zero-carbon resources by December 31, 2045. The Project would not conflict with LADWP's ability to procure the required amount of renewable energy.

As discussed above, natural gas supplied to the Southern California area is mainly sourced from out-of-state with a small portion originating in California. According to the U.S. Energy Information Administration (EIA), the United States currently has approximately 90 years of natural gas reserves based on 2018 consumption.[66] Compliance with energy standards is expected to result in more efficient use of natural gas (lower consumption) in future years.[67] Therefore, Project construction and operation activities would have a negligible effect on natural gas supply.

As stated earlier, transportation fuels (gasoline and diesel) are produced from crude oil, which can be provided domestically or imported from various regions around the world. Based on current proven reserves, crude oil production would be sufficient to meet over 50 years of worldwide consumption.[68] Therefore, Project construction and operation activities would have a negligible effect on the transportation fuel supply.

Given the evidence presented above, the Project would minimize construction and operational energy and transportation fuel demand to the extent feasible and would not substantially impact energy resources.

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63 *"The 2017 [Power Strategic Long-Term Resource Plan] outlines an aggressive strategy for LADWP to accomplish its goals, comply with regulatory mandates, and provide sufficient resources over the next 20 years given the information presently available." Source: LADWP, 2017 Power Strategic Long-Term Resource Plan, December, 2016, page ES-25.*

64 *California Energy Commission, Utility Annual Power Content Labels for 2019, October 2020.*

65 *LADWP, 2017 Power Strategic Long-Term Resource Plan, December, 2016, page ES-3.*

66 *U.S. Energy Information Administration, Frequently Asked Questions, How much natural gas does the United States have, and how long will it last?*

67 *California Energy Commission, Tracking Progress – Energy Efficiency Document, Last Updated: September 2018.*

68 *BP Global, Oil reserves.*

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

As discussed in the **Section IV.K, Transportation**, of this Draft EIR, the Project would promote trip reductions and alternative modes of transportation. The Project Site is located within a High-Quality Transit Area, as defined by the SCAG. The Project's mix of residential, hotel, commercial/museum and restaurant uses, close proximity to transit (including rail service provided by Metro E (Expo) and A (Blue) Lines; and numerous regional, local, and rapid bus service provided by Metro, Commuter Express, Orange County Transportation Authority, Big Blue Bus, and DASH), and location near a broad mix of existing land uses would result in a net reduction in daily trips and VMT. The Project would encourage alternative transportation modes by providing 71 short-term bicycle parking spaces and 144 long-term bicycle parking spaces, for a total of 215 bicycle parking spaces, and the Applicant is also requesting to replace 57 vehicle parking spaces with bicycle parking spaces, pursuant to LAMC Section 12.21 A.4. Furthermore, the Project would also provide 10 percent of its required parking spaces with chargers for electric vehicles and would provide 20 percent of its required parking spaces pre-wired for future electric vehicle charging, thereby further reducing consumption of petroleum-based fuels. As such, as evidenced by the Project resulting in daily household VMT per capita and daily work VMT per employee below the Central APC thresholds, the Project would promote alternate modes of transportation and reduce its reliance on transportation energy.

(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 the Title 24 standards and the CALGreen Code, as amended to be more stringent than State requirements in LAMC Chapter 9, Article 9 (Green Building Code). The Project would minimize water demand and associated energy needed for water conveyance by including the installation of low-flow and high efficiency showerheads, toilets, and urinals; landscaping consisting of native and drought-tolerant plants; and water efficient irrigation. The HVAC system would be sized and designed in compliance with the CALGreen Code to maximize energy efficiency caused by heat loss and heat gain.

With respect to transportation energy demand, as discussed above, the Project would represent an urban infill development, since it would be undertaken on a currently developed site in an urban area. In addition, it would provide a mixed-use development with increased density at a Project Site that is located near existing off-site commercial and retail destinations and in close proximity to existing public transit stops. The Project would result in increased density on the Project Site, would be located in a transportation efficient area, would result in increased land use diversity and mixed-uses on the Project Site by including different types of land uses near one another, would be located in an area that offers access to multiple existing nearby destinations including restaurant, bar, studio/production, office, entertainment, movie theater, and residential uses as well as high quality public transit stations and stops. These land use characteristics and features

would minimize VMT and are included in the transportation fuel demand for the Project's mobile sources.

With implementation of these features along with complying with State and local energy efficiency standards, the Project would exceed applicable energy conservation policies and regulations beyond identified in City requirements.

(h) Whether the project conflicts with adopted energy conservation plans.

The Project would be required to comply with the 2019 CALGreen Code, 2019 Title 24 standards, and the L.A. Green Building Code standards. Compliance with State and local energy efficiency standards would ensure that the Project meets all applicable energy conservation policies and regulations. The Project would be designed to exceed the Title 24 energy requirements by 20 percent, such as installing more energy-efficient electricity lighting/appliances and natural gas fixtures, as required by the L.A. Green Building Code.

Furthermore, as discussed in greater detail in **Section IV.E, Greenhouse Gas Emissions**, the Project would be consistent with applicable goals, measures, and policies of programs and plans that intend to reduce the reliance on fossil fuels, greenhouse gas emissions, energy demand, and promote overall public health. Such programs and plans include the 2017 Scoping Plan, the 2016-2040 RTP/SCS, the Sustainable City pLAn, and applicable SCAQMD Rules. Additionally, it should be noted that the goals and policies of the recently adopted 2020–2045 RTP/SCS are similar to, and consistent with, those of the 2016–2040 RTP/SCS. Hence, because the Project would be consistent with the 2016–2040 RTP/SCS, the Project would also be consistent with the 2020–2045 RTP/SCS.

Based on the above, the Project is designed in a manner that is consistent with and not in conflict with relevant energy conservation plans that are intended to encourage development that results in the efficient use of electricity, natural gas, and transportation fuel resources.

Threshold a) Conclusion

As demonstrated by the analyses of the eight *State CEQA Guidelines* Appendix F and the Threshold Guide criteria discussed above, the Project would not cause wasteful, inefficient, or unnecessary consumption of energy during construction or operation. The Project's energy requirements would not substantially affect local and regional supplies or capacity. The Project's energy usage during peak and base periods would also not conflict with electricity, natural gas, and transportation fuel future projections for the region. Electricity generation capacity and supplies of natural gas and transportation fuels would also be sufficient to meet the needs of Project-related construction and operations. During operations, the Project would comply with and exceed existing minimum energy efficiency requirements such as the Title 24 standards and CALGreen Code, in accordance with the applicable version of these standards at the time of building permit issuance. In summary, the Project's energy demands would not substantially affect available energy supplies and would comply with existing energy efficiency standards. **Therefore,**

Project impacts related to wasteful, inefficient, and unnecessary consumption of energy would be less than significant during construction and operation.

(2) Mitigation Measures

Impacts related to wasteful, inefficient, and unnecessary consumption of energy would be less than significant; no mitigation would be required.

(3) Level of Significance After Mitigation

Impacts related to wasteful, inefficient, and unnecessary consumption of energy would be less than significant without mitigation.

Threshold b) Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

(1) Impact Analysis

As discussed above, the energy conservation policies and plans relevant to the Project include the California Title 24 energy standards, the 2019 CALGreen building code, and the City of Los Angeles Green Building Code. As these conservation policies are mandatory under the City of Los Angeles Building Code, the Project would not conflict with applicable plans for renewable energy or energy efficiency. In addition, the Project would implement measures to exceed Title 24 energy efficiency requirements. The Project's design would comply with existing energy standards and incorporate features to reduce energy consumption. **Therefore, Project impacts related to potential conflict with a state or local plan for renewable energy or energy efficiency would be less than significant during construction and operation.**

(2) Mitigation Measures

Impacts to state or local plans for renewable energy standards would be less than significant; no mitigation would be required.

(3) Level of Significance After Mitigation

Impacts to state or local plans for renewable energy standards would be less than significant without mitigation.

e) Cumulative Impacts

(1) Impact Analysis

As identified in **Section III, Environmental Setting**, of this Draft EIR, a total of 172 Related Projects are located in the vicinity of the Project Site. A map of the related project locations is provided in **Figure III-5** in **Section III** of this Draft EIR.

The geographic context for the cumulative impact analysis related to electricity and natural gas is the service areas of LADWP and SoCalGas, respectively. 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 countywide and regional consumption. The Project in conjunction with forecasted growth in these geographies would cumulatively increase the consumption of electricity, natural gas, and transportation energy.

(a) Wasteful, Inefficient, and Unnecessary Use of Energy

(i) Electricity

Buildout of the Project, Related Projects, and additional forecasted growth in LADWP's service area would cumulatively increase the demand for electricity supplies and infrastructure capacity. LADWP forecasts that its total energy sales in the 2024-2025 fiscal year (i.e., the Project's buildout year) will be 23,286 GWh of electricity.[69] As previously indicated, the Project-related net increase in annual electricity consumption of 7,428,839 kWh per year would represent approximately 0.03 percent of LADWP's projected sales in 2024, and in general, each Related Project would be expected to comprise a similarly limited percentage of overall electricity consumption. The total increase in electricity demand for the Related Projects would be approximately 369.75 GWh per year.[70] When combined with the Project's electricity demand, the cumulative increase in energy demand resulting from the Project and Related Projects would be approximately 377.18 GWh, or approximately 1.6 percent of LADWP's total projected sales in 2024. As with the Project, Related Projects would be required to evaluate energy impacts during construction and operation related to the wasteful, inefficient, or unnecessary use of electricity, incorporate energy conservation features, comply with applicable regulations including the City's Green Building Code, the Title 24 standards, and CALGreen, and incorporate mitigation measures, as necessary under CEQA.

LADWP relies on multiple forms of data from various agencies, including historical sales from the General Accountings Consumption and Earnings report, historical Los Angeles County employment data provided from the State Economic Development Division, plug-in electric vehicle projections from the CEC account building permits when determining electricity Load Forecasts, solar rooftop installations from the Solar Energy Development Group, electricity price projections from the Financial Services organization, and LADWP program efficiency forecasts.[71] In addition, LADWP considers projected Los Angeles County building permit amounts calculated by the UCLA Anderson School of Management when determining its load forecast and would therefore account for the Project's and the Related Projects' electricity demand within its forecasts.[72] Data used to develop the LADWP demand forecasts account for population growth,

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[69] *LADWP defines its future electricity supplies in terms of sales that will be realized at the meter. LADWP, 2017 Power Strategic Long-Term Resource Plan, Appendix A, December 2017.*

[70] *KPFF Consulting Engineers, Morrison Hotel Project, Utility Infrastructure Technical Report: Energy for APNs 5139-022-003, 5139-022-004, 5139-022-020, 5139-022-006, and 5139-022-02, 1220-1246 South Hope Street and 427-435 Pico Boulevard, Los Angeles, California, 90015, September 23, 2020, page 11. See* ***Appendix D.1*** *of this Draft EIR. (This cumulative value remains the same when accounting for the net change in land uses from Related Project No. 172 [1201 South Grand Project].)*

[71] *Los Angeles Department of Water and Power, 2017 Power Strategic Long-Term Resource Plan, 2017, p. 70.*

[72] *Los Angeles Department of Water and Power, 2017 Power Strategic Long-Term Resource Plan, 2017, p. 67.*

energy efficiency improvements, and economic growth which includes construction projects.[73] Therefore, electricity usage resulting from future operations at many of the Related Projects is likely accounted for in the LADWP projections.

Additionally, as discussed above, LADWP was required to procure at least 33 percent of its energy portfolio from renewable sources by 2020 and is committed to meeting the requirement of the RPS Enforcement Program to use at least 50 percent of the State's energy from renewables by 2030. The current sources of renewable energy procured by LADWP include wind, solar, and geothermal sources. These sources accounted for 34.1 percent of LADWP's overall energy mix in 2019, the most recent year for which data are available. This represents the available off-site renewable sources of energy that could meet the Project's and related projects energy demand. Additionally, LADWP is on track to meet 65 percent or more energy from renewable sources by 2036 through the commission of large-scale solar projects (Moapa Southern Paiute Solar, Copper Mountain 3 Solar), expansion of customer-owned rooftop and ground-mounted solar projects, and construction of a new geothermal project in Imperial County.[74]

(ii) Natural Gas

Buildout of the Project, Related Projects, and additional forecasted growth in SoCalGas' service area would cumulatively increase the demand for natural gas supplies and infrastructure capacity. Based on the 2020 California Gas Report, the California Energy and Electric Utilities estimates natural gas consumption within SoCalGas' planning area will be approximately 2,349 million CF per day in 2024, with an estimated 1,086 million CF per day of additional supplies available.[75] As previously indicated, the Project's natural gas demand of 59,613 CF per day would account for approximately 0.003 percent of the 2024 forecasted consumption in SoCalGas' planning area, and in general, each Related Project would be expected to comprise a similarly limited percentage of overall natural gas consumption. The total increase in natural gas consumption for the Related Projects would be approximately 2,364,562 CF per day.[76] When combined with the Project's natural gas consumption, the cumulative increase in energy demand resulting from the Project and Related Projects would be approximately 2,424,175 CF per day, or approximately 0.1 percent of the daily 2024 forecasted consumption in SoCalGas' planning area, and approximately 0.2 percent of additional supplies available. As with the Project, Related Projects would be required to evaluate energy impacts during construction and operation related to the wasteful, inefficient, or unnecessary use of natural gas, incorporate energy conservation features, comply with applicable regulations including the City's Green Building Code, the Title 24 standards and CALGreen code, and incorporate mitigation measures, as necessary under CEQA. Related

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[73] *Los Angeles Department of Water and Power, 2017 Power Strategic Long-Term Resource Plan, 2017, p. A-2.*

[74] *City of Los Angeles, Department of Water and Power, News Releases, LADWP Achieves 25 Percent Renewable Energy Milestone.*

[75] *California Gas and Electric Utilities, 2020 California Gas Report, page 145.*

[76] *KPFF Consulting Engineers, Morrison Hotel Project, Utility Infrastructure Technical Report: Energy for APNs 5139-022-003, 5139-022-004, 5139-022-020, 5139-022-006, and 5139-022-02, 1220-1246 South Hope Street and 427-435 Pico Boulevard, Los Angeles, California, 90015, September 23, 2020, page 12. See* ***Appendix D.1*** *of this Draft EIR. (This cumulative value remains the same when accounting for the net change in land uses from Related Project No. 172 [1201 South Grand Project].)*

Projects, as with the Project, would also be required to evaluate potential impacts related to local and regional supplies or capacity based on regional growth plans, such as the 2016-2040 RTP/SCS and 2020-2045 RTP/SCS, and SoCalGas energy supply projections for long-term planning.

SoCalGas' forecasts account for projected population growth and development based on local and regional plans. Therefore, natural gas usage resulting from operations at future development sites, including those of the Related Projects, is likely accounted for in the SoCalGas projections.

(iii) Transportation-Related 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. At buildout, the Project's estimated net petroleum-based fuel usage would be approximately 290,689 gallons of gasoline and 17,722 gallons of diesel per year. For comparison purposes, the net fuel usage during Project operation would represent approximately 0.008 percent of the 2024 (the Project's buildout year) annual on-road gasoline-related energy consumption and 0.003 percent of the 2024 annual diesel fuel-related energy consumption in Los Angeles County, as projected by CARB's EMFAC on-road vehicle emissions factor model.[77] While it is speculative to assess transportation fuel usage from Related Projects, in general, each Related Project would be expected to comprise a similarly limited percentage of Countywide fuel consumption. Furthermore, the Project would be consistent with the policies set forth in the 2016–2040 RTP/SCS and 2020-2045 RTP/SCS. 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 with the Project, Related Projects would be required under CEQA to evaluate if their respective developments would conflict with the energy efficiency policies emphasized by the applicable RTP/SCS, such as the per capita VMT targets, promotion of alternative forms of transportation, proximity to public transportation options, provisions for encouraging multi-modal and energy efficient transit such as by accommodating bicycle parking and EV chargers at or above regulatory requirements.

By its very nature, the 2016–2040 RTP/SCS and 2020-2045 RTP/SCS are regional planning tools that addresses cumulative growth and resulting environmental effects. Therefore, growth and related transportation-related energy consumption resulting from future operations at many of the Related Projects is likely accounted for in SCAG's regional planning projections.

Additionally, as described above, petroleum currently accounts for 90 percent of California's transportation energy sources;[78] however, over the last decade the State has implemented

[77] *California Air Resources Board, EMFAC2017 on-road vehicle emissions factor model, EMFAC2017 (Modeling input: Los Angeles County; Fleet Aggregate; Annual; 2024). The modeling input values are considered generally representative of conditions for the region and representative of the majority of vehicles associated with Project-related VMT. According to EMFAC2017 modeling, Los Angeles County on-road vehicles will consume 3.58 billion gallons of gasoline and 642 million gallons of diesel in 2024 (i.e., the Project's buildout year).*

[78] *California Energy Commission, 2020-2023 Investment Plan Update for the Clean Transportation Program, November 2020, page 10.*

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, all of which serve to reduce reliance on petroleum fuels. The CEC, forecasts a decline in gasoline demand due to increased fuel efficiency and increased use of alternative fuels, such as natural gas, biofuels, and electricity.[79] As with the Project, other Related Projects would be expected to reduce VMT by encouraging the use of alternative modes of transportation and other design features that promote VMT reductions.

(iv) Conclusion

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

(b) Consistency with State or Local Energy Plans

Related 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's Green Building Code. Each of the Related Projects would be reviewed by the local utility providers to identify necessary electricity and natural gas service connections to meet the needs of their respective uses. Related Project applicants would be required to provide for the needs of their individual projects, thereby contributing to the electrical and natural gas infrastructure in the Project area. Related Projects would also be required to evaluate electricity and natural gas demands and coordinate with the local utility providers for providing adequate service, in accordance with future projected supplies, to each of the Related Project sites. Furthermore, the Related Projects are generally infill projects in a developed area already served by existing facilities and are generally residential, mixed-use, and commercial projects and not high-energy demand facilities such as heavy industrial uses. 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 and 2020-2045 RTP/SCS. The Project would be a mixed-use Project and located near public transit which would result in a VMT reduction. As discussed above and in **Section IV.E, Greenhouse Gas Emissions**, of this Draft EIR, the Project would reduce VMT consistent with the policies of the 2016-2040 RTP/SCS and 2020-2045 RTP/SCS, as well as with CARB's updated 2035 target. 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, consistent with regional planning for cumulative development. **Therefore, as with the Project, Related Projects would also be consistent with adopted plans for energy efficiency and cumulative impacts would be less than significant.**

[79] *California Energy Commission, 2019 Integrated Energy Policy Report, February 2020, page 228.*

(2) Mitigation Measures

Cumulative impacts related to energy would be less than significant; no mitigation would be required

(3) Level of Significance After Mitigation

Cumulative impacts related to energy consumption would be less than significant without mitigation.