IV. Environmental Impact Analysis

P. Energy Consumption and Conservation

1. Introduction

This section describes the existing energy consumption and conservation measures employed at the Project Site and vicinity, identifies associated regulatory requirements, and evaluates the potential impacts related to implementation of the proposed Project. The information presented herein is based, in part, on the Energy Calculations for Kaiser Permanente Los Angeles Medical Center Project provided in Appendices N-1 and N-2. In addition, this section provides the content and analysis required the California Environmental Quality Act (CEQA) pursuant to California Public Resources Code (PRC) Section 21100(b)(3) and Appendix F, Energy Conservation, to the Guidelines for the Implementation of the California Environmental Quality Act (CEQA Guidelines).[1]

2. Environmental Setting

a) Regulatory Framework

There are several plans, policies, and programs regarding Energy at the federal, state, and local levels. Described below, these include:

- Federal Energy Policy and Conservation Act
- Energy Independence and Security Act of 2007
- CEQA
- Warren-Alquist Act
- Senate Bill 1078
- Senate Bill 107, Senate Bill X1-2, and Senate Bill 350
- Assembly Bill 1007

[1] 14 California Code of Regulations 15000 et seq.

- Assembly Bill 32 and Senate Bill 32
- California Building Standards
- Integrated Energy Policy Report
- State Vehicle Standards
- Sustainable Communities Strategy
- Southern California Association of Governments
- City of Los Angeles Sustainable City pLAn/L.A.'s Green New Deal
- City of Los Angeles Green Building Code
- City of Los Angeles Solid Waste Programs and Ordinances

(1) Federal

(a) Federal Energy Policy and Conservation Act

In 1975, Congress enacted the Federal Energy Policy and Conservation Act, which established the first fuel economy standards, known as the Corporate Average Fuel Economy (CAFE) standards, for on-road motor vehicles in the United States. Pursuant to the act, the National Highway Traffic Safety Administration (NHTSA) is responsible for establishing additional vehicle standards. In 2012, new CAFE standards for passenger cars and light trucks were approved for model years 2017 through 2021.[2] Fuel economy is determined based on each manufacturer's average fuel economy for the fleet of vehicles available for sale in the United States.

(b) Energy Independence and Security Act of 2007

On December 19, 2007, the Energy Independence and Security Act of 2007 (EISA) was signed into law. In addition to setting increased CAFE standards for motor vehicles, the EISA facilitates the reduction of national greenhouse gas (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.

[2] 77 FR 62624 – 63200.

- 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.
- While superseded by the U.S. Environmental Protection Agency (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.

This federal legislation requires ever-increasing levels of renewable fuels (the RFS) to replace petroleum.[3] The EPA is responsible for developing and implementing regulations to ensure that transportation fuel sold in the United States contains at least a minimum volume of renewable fuel. The RFS program regulations were developed in collaboration with refiners, renewable fuel producers, and many other stakeholders.

The RFS program was created under the Energy Policy Act of 2005 and established the first renewable fuel volume mandate in the U.S. As required under the act, the original RFS program required 7.5 billion gallons of renewable fuel to be blended into gasoline by 2012. Under the EISA, the RFS program was expanded in several key ways that lay the foundation for achieving significant reductions in GHG emissions from the use of renewable fuels, reducing imported petroleum, and encouraging the development and expansion of the renewable fuels sector in the U.S. The updated program is referred to as “RFS2” and includes the following:

- EISA expanded the RFS program to include diesel, in addition to gasoline.
- EISA increased the volume of renewable fuel required to be blended into transportation fuel from 9 billion gallons in 2008 to 36 billion gallons by 2022.
- EISA established new categories of renewable fuel and set separate volume requirements for each one.
- EISA required the EPA to apply lifecycle GHG performance threshold standards to ensure that each category of renewable fuel emits fewer GHGs than the petroleum fuel it replaces.

[3] U.S. Environmental Protection Agency (EPA), Renewable Fuel Standard, last updated June 7, 2017.

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

(2) State

(a) CEQA

In accordance with the CEQA Guidelines and Appendix F, Energy Conservation, of the CEQA Guidelines, in order to ensure that energy implications are considered in project decisions, Environmental Impact Reports (EIRs) must include a discussion of the potential significant energy impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy. Appendix F of the CEQA Guidelines provides a list of energy-related topics that should be analyzed in an EIR. In addition, while not described as significance thresholds for determining the significance of impacts related to energy, Appendix F provides the following topics that the lead agency may consider in the energy analysis in an EIR, where topics are applicable or relevant to the project:

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

(b) Warren-Alquist Act

The California Legislature passed the Warren-Alquist Act in 1974, which gives statutory authority to the California Energy Commission (CEC). The legislation also incorporated the following three key provisions designed to address the demand side of the energy equation:

- It directed the CEC to formulate and adopt the nation's first energy conservation standards for both buildings constructed and appliances sold in California.
- It removed the responsibility of electricity demand forecasting from the utilities, which had a financial interest in high demand projections, and transferred it to the more impartial CEC.
- It directed the CEC to embark on an ambitious research and development program, with a particular focus on fostering what were characterized as "non-conventional energy sources."

(c) Senate Bill 1078

Senate Bill (SB) 1078 (2002) established the California Renewables Portfolio Standard (RPS) Program and required that a retail seller of electricity purchase a specified minimum percentage of electricity generated by eligible renewable energy resources as defined in any given year, culminating in a 20 percent standard by December 31, 2017. These retail sellers include electrical corporations, community choice aggregators, and electric service providers. The bill relatedly required the CEC to certify eligible renewable energy resources, design and implement an accounting system to verify compliance with the RPS by retail sellers, and allocate and award supplemental energy payments to cover above-market costs of renewable energy.

(d) SB 107, SB X1-2, and SB 350

SB 107 (2006) accelerated the RPS established by SB 1078 by requiring that 20 percent of electricity retail sales be served by renewable energy resources by 2010 (not 2017). Additionally, SB X1-2 (2011) requires all California utilities to generate 33 percent of their electricity from eligible renewable energy resources by 2020. Specifically, SB X1-2 sets a three-stage compliance period: by December 31, 2013, 20 percent shall come from renewables; by December 31, 2016, 25 percent shall come from renewables; and by December 31, 2020, 33 percent shall come from renewables.

SB 350 (2015) requires retail sellers and publicly owned utilities to procure 50 percent of their electricity from eligible renewable energy resources by 2030, with interim goals of 40 percent by 2024 and 45 percent by 2027.

Consequently, utility energy generation from non-renewable resources is expected to be reduced based on implementation of the 33 percent RPS in 2020 and the 50 percent RPS in 2030.

(e) Assembly Bill 1007

Assembly Bill (AB) 1007 (2005) required the CEC to prepare a statewide plan to increase the use of alternative fuels in California (State Alternative Fuels Plan). The CEC prepared the plan in partnership with the California Air Resources Board (CARB) and in consultation with the other state, federal, and local agencies. The plan assessed various alternative fuels and developed fuel portfolios to meet California's goals to reduce petroleum consumption, increase alternative fuels use, reduce GHG emissions, and increase in-state production of biofuels without causing a significant degradation of public health and environmental quality.

(f) AB 32 and SB 32

In 2006, the Legislature enacted AB 32, the California Global Warming Solutions Act. AB 32 requires California to reduce its GHG emissions to 1990 levels by 2020.

In 2016, the Legislature enacted SB 32, which extended the horizon year of the state's codified GHG reduction planning targets from 2020 to 2030, requiring California to reduce its GHG emissions to 40 percent below 1990 levels by 2030.

In accordance with AB 32 and SB 32, CARB prepares scoping plans to guide the development of Statewide policies and regulations for the reduction of GHG emissions. Many of the policy and regulatory concepts identified in the scoping plans focus on increasing energy efficiencies and the use of renewable resources and reducing the consumption of petroleum-based fuels (such as gasoline and diesel). As such, the State's GHG emissions reduction planning framework creates co-benefits for energy-related resources. Additional information on AB 32 and SB 32 is provided in Section IV.F, Greenhouse Gas Emissions, of this Draft EIR.

(g) California Building Standards

24 CCR Part 6 was established in 1978 and serves to enhance and regulate California's building standards. While not initially promulgated to reduce GHG emissions, Part 6 of Title 24 specifically established Building Energy Efficiency Standards that are designed to ensure new and existing buildings in California achieve energy efficiency and preserve outdoor and indoor environmental quality. These energy efficiency standards are reviewed every few years by the Building Standards Commission and the California

Energy Commission (CEC) (and revised if necessary).[4] The regulations receive input from members of industry, as well as the public, in order to "reduce the wasteful, uneconomic, inefficient, or unnecessary consumption of energy."[5] These regulations are carefully scrutinized and analyzed for technological and economic feasibility and cost effectiveness. As a result, these standards save energy, increase electricity supply reliability, increase indoor comfort, avoid the need to construct new power plants, and help preserve the environment. The current Title 24 standards are the 2019 Title 24 Building Energy Efficiency Standards, which became effective January 1, 2020. Notably, Title 24, Part 6, does not apply to hospitals but applies to other facilities associated with the medical center, such as the medical office buildings.

(h) Integrated Energy Policy Report

CEC is responsible for preparing integrated energy policy reports, which identify emerging trends related to energy supply, demand, conservation, public health and safety, and maintenance of a healthy economy. The latest Integrated Energy Policy Report was released in early 2018 and addressed a variety of issues, including, but not limited to, implementation of SB 350, electricity resource/supply plans, electricity and natural gas demand forecast, natural gas outlook, transportation energy demand forecasts, doubling energy efficiency savings, integrated resource planning, climate adaptation and resiliency, renewable gas, Southern California energy reliability, distributed energy resources, strategic transmission investment plan, and existing power plant reliability issues.[6]

(i) State Vehicle Standards

In a response to the transportation sector accounting for more than half of California's carbon dioxide (CO_2) emissions, AB 1493 was enacted in 2002. AB 1493 required CARB to set GHG emission standards for passenger vehicles, light-duty trucks, and other vehicles determined by CARB to be vehicles whose primary use is noncommercial personal transportation in the state. The bill required that CARB set GHG emission standards for motor vehicles manufactured in 2009 and all subsequent model years. The 2009–2012 standards resulted in a reduction in approximately 22 percent GHG emissions compared to emissions from the 2002 fleet, and the 2013–2016 standards resulted in a reduction of approximately 30 percent.

In 2012, CARB approved a new emissions-control program for model years 2017 through 2025. The program combines the control of smog, soot, and global warming gases and

4 California Public Resources Code (PRC) Section 25402(b)(1).
5 California PRC 25402.
6 CEC, 2018 Integrated Energy Policy Report Update, adopted February 20, 2019.

requirements for greater numbers of zero-emission vehicles into a single package of standards called Advanced Clean Cars. By 2025, when the rules would be fully implemented, new automobiles would emit 34 percent fewer global warming gases and 75 percent fewer smog-forming emissions.[7]

Although the focus of the State's vehicle standards is on the reduction of air pollutants and GHG emissions, one co-benefit of implementation of these standards is a reduced demand for petroleum-based fuels.

(j) Sustainable Communities Strategy

The Sustainable Communities and Climate Protection Act of 2008, or SB 375, coordinates land use planning, regional transportation plans (RTPs), and funding priorities to help California meet its GHG emissions reduction mandates. As codified in California Government Code Section 65080, SB 375 requires metropolitan planning organizations to include a sustainable communities strategy (SCS) in their RTPs. The main focus of the SCS is to plan for growth in a fashion that will ultimately reduce GHG emissions, but the strategy is also a part of a bigger effort to address other development issues within the general vicinity, including transit and vehicle miles traveled (VMT), which influence the consumption of petroleum-based fuels.

(3) Regional

(a) Southern California Association of Governments

The Southern California Association of Governments (SCAG) is the designated metropolitan planning organization for six Southern California counties (Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial), and is federally mandated to develop plans for regional issues relating to transportation, the economy, community development, and the environment. With respect to air quality and GHG emissions, SCAG prepared the 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). On September 3, 2020, the SCAG Regional Council adopted the 2020–2045 RTP/SCS, which builds upon the progress made in the 2016–2040 RTP/SCS. Pursuant to Government Code Section 65080(b)(2)(B), the SCS must "set forth forecasted development pattern for the region which when integrated with the transportation network, and other transportation measures and policies, will reduce the GHG emissions from automobiles and light trucks to achieve the GHG reduction targets." Using growth forecasts and economic trends, the 2020–2045 RTP/SCS provides a vision for transportation throughout the region for the next 25 years. It considers the role of transportation in the broader context of economic,

[7] California Air Resources Board (CARB), The Advanced Clean Cars Program, 2021.

environmental, and quality-of-life goals for the future, identifying regional transportation strategies to address mobility needs.

(4) Local

(a) City of Los Angeles Sustainable City pLAn/L.A.'s Green New Deal

On April 8, 2015, Mayor Eric Garcetti released the Sustainable City pLAn, a program of actions designed to meet short-term (2017) and long-term (2025 and 2035) targets in 14 categories designed to advance economic, environmental, and equity objectives.[8] In 2019, the City released L.A.'s Green New Deal, which updated and superseded the 2015 Sustainable City pLAn. Rather than an adopted plan, L.A.'s Green New Deal is a mayoral initiative that consists of a program of actions designed to create sustainability-based performance targets through 2050 that advance economic, environmental, and equity objectives. L.A.'s Green New Deal is guided by four key principles: (1) a commitment to uphold the Paris Climate Agreement; (2) a promise to deliver environmental justice and equity through an inclusive green economy; (3) a plan to ensure every Angeleno has the ability to join the green economy by creating pipelines to good paying, green jobs; and (4) a determination to lead by example within City government, showing the world what an urban Green New Deal looks like in practice.[9] While not a plan adopted solely to reduce GHG emissions, within L.A.'s Green New Deal (Sustainable City pLAn 2019), climate mitigation is one of eight explicit benefits that help define its strategies and goals. These include reducing GHG emissions through near-term outcomes:

- Reduce potable water use per capita by 22.5 percent by 2025; 25 percent by 2035; and maintain or reduce 2035 per capita water use through 2050.

- Reduce building energy use per square feet for all building types 22 percent by 2025; 34 percent by 2035; and 44 percent by 2050 (from a baseline of 68 million British thermal units/square foot in 2015).

- All new buildings will be net zero carbon by 2030, and 100 percent of buildings will be net zero carbon by 2050.

- Increase cumulative new housing unit construction to 150,000 by 2025; and 275,000 units by 2035.

[8] City of Los Angeles, Sustainable City pLAn, April 8, 2015.
[9] City of Los Angeles, L.A.'s Green New Deal, 2019.

- Ensure 57 percent of new housing units are built within 1,500 feet of transit by 2025; and 75 percent by 2035.

- Increase the percentage of all trips made by walking, biking, micro-mobility/matched rides or transit to at least 35 percent by 2025, 50 percent by 2035, and maintain at least 50 percent by 2050.

- Reduce VMT per capita by at least 13 percent by 2025; 39 percent by 2035; and 45 percent by 2050.

- Increase the percentage of electric and zero emission vehicles in the city to 25 percent by 2025; 80 percent by 2035; and 100 percent by 2050.

- Increase landfill diversion rate to 90 percent by 2025; 95 percent by 2035 and 100 percent by 2050.
- Reduce municipal solid waste generation per capita by at least 15 percent by 2030, including phasing out single-use plastics by 2028 (from a baseline of 17.85 lbs. of waste generated per capita per day in 2011).

- Eliminate organic waste going to landfill by 2028.

- Reduce urban/rural temperature differential by at least 1.7 degrees by 2025; and 3 degrees by 2035.

- Ensure proportion of Angelenos living within 0.5 miles of a park or open space is at least 65 percent by 2025; 75 percent by 2035; and 100 percent by 2050.

(b) City of Los Angeles Green Building Code

On December 15, 2010, the Los Angeles City Council approved Ordinance No. 181480, which amended Chapter IX of the Los Angeles Municipal Code (LAMC), referred to as the Los Angeles Green Building Code, by adding a new Article 9 (Los Angeles Green Building Code) to incorporate various provisions of the 2010 CALGreen Code. On December 20, 2016, the Los Angeles City Council approved Ordinance No. 184,692, which further amended Chapter IX of the LAMC, by amending certain provisions of Article 9 to reflect local administrative changes and incorporating by reference portions of the 2016 CALGreen Code. On December 18, 2019, the Los Angeles City Council approved Ordinance No. 186488, which amended Chapter IX, Article 9 of the LAMC to incorporate provisions of the 2019 CALGreen Code. Projects filing building permit applications on or after January 1, 2020, must comply with the provisions of the Los Angeles Green Building Code. The City of Los Angeles Green Building Code has many mandatory and voluntary measures that would result in reductions of GHG emissions. Among the mandatory measures for nonresidential uses are the installation of electric vehicle supply equipment; requiring 25 percent of hardscape be

shaded or composed of alternatives that reduce heat (such as open-grid pavement); meeting the applicable energy efficiency requirements of Title 24, Part 6 of the California Energy Code, requiring each building to reduce overall potable water use by 20 percent; and compliance with Section 66.32 of the LAMC regarding construction and demolition waste diversion requirements.

(c) City of Los Angeles Solid Waste Programs and Ordinances

The recycling of solid waste materials also contributes to reduced energy consumption. Specifically, when products are manufactured using recycled materials, the amount of energy that would have otherwise been consumed to extract and process virgin source materials is reduced. For example, in 2015, 3.61 million tons of aluminum were produced by recycling in the U.S., saving enough energy to provide electricity to 7.5 million homes.[10] In 1989, California enacted AB 939, the California Integrated Waste Management Act, which establishes a hierarchy for waste management practices such as source reduction, recycling, and environmentally safe land disposal.[11] The City has also adopted programs and ordinances related to solid waste including (1) the City of Los Angeles Solid Waste Management Policy Plan, which was adopted in 1993 and is a long-range policy plan promoting source reduction for recycling for a minimum of 50 percent of the City's waste by 2000 and 70 percent of the waste by 2020; (2) the RENEW LA Plan, which is a Resource Management Blueprint with the aim to achieve a zero waste goal through reducing, reusing, recycling, or converting the resources now going to disposal so as to achieve an overall diversion level of 90 percent or more by 2025; (3) the Waste Hauler Permit Program (Ordinance 181519), which requires all private waste haulers collecting solid waste, including construction and demolition waste, to obtain AB 939 Compliance Permits and to transport construction and demolition waste to City certified construction and demolition processing facilities; and (4) the Exclusive Franchise System Ordinance (Ordinance No. 182986), which, among other requirements, sets maximum annual disposal levels and specific diversion requirements for franchised waste haulers in the City to promote solid waste diversion from landfills in an effort to meet the City's zero waste goals. These solid waste reduction programs and ordinances help to reduce the number of trips to haul solid waste, therefore reducing the amount of petroleum-based fuel, and also help to reduce the energy used to process solid waste.

[10] American Geosciences Institute, How Does Recycling Save Energy? Accessed October 2018.

[11] California Department of Resources Recycling and Recovery (CalRecycle), History of California Solid Waste Law, 1985–1989, last updated July 27, 2018.[12] Los Angeles Department of Water and Power (LADWP), 2017 Power Strategic Long-Term Resource Plan, p. 17, December 2017.

b) Existing Conditions

(1) Electricity

The production of electricity requires the consumption or conversion of energy resources, including water, wind, oil, gas, coal, solar, geothermal, and nuclear resources, into electrical energy. The delivery of electricity involves a number of system components, including power generation facilities, transmission and distribution lines, 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. Production of electricity and its conveyance through the power grid occur in response to market demand.

Energy capacity, or electrical power, is generally measured in watts (W) while energy use is measured in watt-hours (Wh). For example, if a light bulb has a capacity rating of 100 W, the energy required to keep the bulb on for 1 hour would be 100 Wh. If 10, 100-W bulbs were on for 1 hour, the energy required would be 1,000 Wh or 1 kilowatt-hour (kWh). On a utility scale, a generator's capacity is typically rated in megawatts (MW), which is one million watts, while energy usage is measured in megawatt-hours (MWh) or gigawatt-hours (GWh), which is one billion watt-hours.
LADWP provides electrical service throughout the City and many areas of the Owens Valley, serving approximately four million people within a service area of approximately 465 square miles, excluding the Owens Valley. Electrical service provided by the LADWP is divided into two planning districts: Valley and Metropolitan. The Valley Planning District includes the LADWP service area north of Mulholland Drive, and the Metropolitan Planning District includes the LADWP service area south of Mulholland Drive. The Project Site is located within LADWP's Metropolitan Planning District.

LADWP generates power from a variety of energy sources, including natural gas, nuclear, large hydroelectric, coal, and renewable resources, including biomass and biowaste, geothermal, small hydroelectric, solar, and wind. According to LADWP's 2017 Power Strategic Long-Term Resource Plan, the LADWP has a generation capacity greater than 7,531 MW. In 2017, the LADWP power system experienced an instantaneous peak demand of 6,555 MW.[12] Approximately 34 percent of LADWP's 2019 electricity purchases were from renewable sources, which is similar to the 25 percent statewide percentage of electricity purchases from renewable sources.[13]

[12] Los Angeles Department of Water and Power (LADWP), 2017 Power Strategic Long-Term Resource Plan, p. 17, December 2017.
[13] CEC, 2018 Power Content Label: Los Angeles Department of Water and Power, July 2019.

LADWP supplies electrical power to the Project Site from electrical service lines located in the Project vicinity. As shown in **Table IV.P-1**, the existing land uses on the Project Site consume approximately 4,556,465 kWh of electricity per year.

TABLE IV.P-1
EXISTING ELECTRICITY CONSUMPTION ON THE PROJECT SITE

Land Use	Size (sf)	Total (kWh/year)
Medical Office Building, Site 1 (1345 North Vermont Avenue)	219,110	4,051,381
Medical Office Building, Site 2 (4760B Sunset Boulevard)	15,110	279,439
Apartments Low Rise	2,000	8,236
Unenclosed Parking Structure	114,736	200,795
Parking Lot 1	34,400	12,040
Parking Lot 2	13,068	4,574
Total		4,556,465

SOURCE: CalEEMod 2016. See Appendix N-2 and Section IV.B, Air Quality, for details.
NOTES: sf= square feet
kWh=kilowatt-hour

(2) Natural Gas

Natural gas is a combustible mixture of simple hydrocarbon compounds (primarily methane) that is used as a fuel source. Natural gas consumed in California is obtained from naturally occurring reservoirs, mainly located outside the State, and delivered through high-pressure transmission pipelines. The natural gas transportation system is a nationwide network, and therefore, resource availability is typically not an issue. Natural gas provides almost one-third of the state's total energy requirements and is used in electricity generation, space heating, cooking, water heating, industrial processes, and as a transportation fuel. Natural gas is measured in terms of cubic feet.

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 21.8 million customers in more than 500 communities encompassing approximately 24,000 square miles throughout Central and Southern California, from the City of Visalia to the Mexican border.[14]

SoCalGas receives gas supplies from several sedimentary basins in the western U.S. and Canada, including supply basins located in New Mexico (San Juan Basin), West Texas (Permian Basin), the Rocky Mountains, and Western Canada, as well as local California supplies.[15] The traditional, southwestern U.S. sources of natural gas will continue to supply most of SoCalGas's 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.[16]

As shown on **Table IV.P-2**, the existing land uses on the Project Site consume approximately 118,824 therms[17] per year or 11,882,400 thousand British thermal units (kBTU) of natural gas per year.

TABLE IV.P-2
EXISTING NATURAL GAS CONSUMPTION ON THE PROJECT SITE

Land Use	Size	Total (therms/year)
Medical Office Building, Site 1 (1345 North Vermont Avenue))	219,110	110,893
Medical Office Building, Site 2 (4760B Sunset Boulevard)	15,110	7,649
Apartments Low Rise	2,000	282
Unenclosed Parking Structure	114,740	0
Parking Lot 1	34,400	0
Parking Lot 2	13,068	0
Total		**118,824**

SOURCE Calculated in CalEEMod. Refer to Appendix N-2 of this Draft EIR.
NOTES: sf=square feet

[14] Southern California Gas Company (SoCalGas), Company Profile, accessed October 2018.
[15] California Gas and Electric Utilities, 2018 California Gas Report, p. 80, accessed October 2018.
[16] California Gas and Electric Utilities, 2018 California Gas Report, pp. 80–81, accessed October 2018.
[17] A therm is a unit of heat equivalent to 100,000 British Thermal Units or 1.055×10^8 joules.

(3) Transportation Energy

According to the CEC, transportation accounts for 38.5 percent of California's total energy consumption in 2015.[18] In 2019, California consumed approximately 15.3 billion gallons of gasoline and 3.01 billion gallons of diesel fuel.[19,20] Petroleum-based fuels currently account for 90 percent of California's transportation energy sources.[21] However, the State is now working on developing flexible strategies to reduce petroleum use. Over the last decade, California has implemented several policies, rules, and regulations to improve vehicle efficiency, increase the development and use of alternative fuels, reduce air pollutants and GHGs from the transportation sector, and reduce VMT. Accordingly, gasoline consumption in California has declined. The CEC predicts that the demand for gasoline will continue to decline over the next 10 years, and there will be an increase in the use of alternative fuels.[22] According to CARB's Emission Factor (EMFAC) Web Database, Los Angeles County on-road transportation sources were projected to consume 4.07 billion gallons of gasoline and 0.63 billion gallons of diesel fuel in 2019.[23]

The existing on-site land uses currently generate a demand for transportation-related fuel use as a result of vehicle trips to and from the Project Site. The estimate of annual VMT associated with the existing Project Site land uses is 17,501,981 VMT per year, or 864,383 gallons of gasoline and 46,935 gallons of diesel per year (Appendix N-2).

Persons traveling to and from the Project Site also have the option of using public transportation to reduce transportation-related fuel use. Extensive public bus and rail transit service is provided within the Kaiser Permanente Medical Center campus study area. Public bus transit service within the Kaiser Permanente Medical Center campus study area is provided by Los Angeles County Metropolitan Transportation Authority (Metro) and Los Angeles Department of Transportation (LADOT) DASH and Commuter Express Transit Service. A summary of the existing transit service, including the transit route, destinations, and peak-hour headways is presented in **Table IV.M-3**, in Section IV.M, Transportation, of this Draft EIR. The existing public transit routes in the Kaiser Permanente Medical Center campus vicinity are illustrated in **Figure IV.M-2**. For further discussion of public transit lines that serve the Project area, refer to Section IV.M, Transportation, of this Draft EIR.

---

18 CEC, 2017 Integrated Energy Policy Report. p. 3, April 16, 2018.
19 California Board of Equalization, Net Taxable Gasoline Gallons 10 Year Report, accessed May 2020.
20 California Board of Equalization, Taxable Diesel Gallons 10 Year Report, accessed May 2020.
21 CEC, 2017-2018 Investment Plan Update for the Alternative and Renewable Fuel and Vehicle Technology Program, October 2016.
22 CEC, 2015 Integrated Energy Policy Report, p. 113, June 29, 2016.
23 CARB, EMFAC2017 Web Database, accessed December 2020.

3. Project Impacts

a) Thresholds of Significance

In accordance with the State CEQA Guidelines Appendix G (Appendix G), the Project would have a significant impact related to energy consumption and conservation if it would:

Threshold (a): Result in potentially significant environment 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.

This analysis relies on the Appendix G Thresholds. The analysis uses factors and considerations identified in the 2006 L.A. CEQA Thresholds Guide, as appropriate, to assist in answering the Appendix G Threshold questions. With regard to Threshold (a), this analysis relies on Appendix F of the State CEQA Guidelines and was prepared in response to the requirement in California PRC Section 21100(b)(3), which states that an EIR shall include a detailed statement setting forth "[m]itigation measures proposed to minimize significant effects of the environment, including, but not limited to, measures to reduce the wasteful, inefficient, and unnecessary consumption of energy." In addition, with regard to potential impacts to energy, the 2006 L.A. CEQA Thresholds Guide states that a determination of significance shall be made on a case-by case basis, considering the following factors:

- The extent to which the project would require new (off-site) energy supply facilities and distribution infrastructure, or capacity enhancing alterations to existing facilities.
- Whether and when the needed infrastructure was anticipated by adopted plans.
- The degree to which the project design and/or operations incorporate energy conservation measures, particularly those that go beyond City requirements.

In accordance with Appendix F of the State CEQA Guidelines and the 2006 L.A. CEQA Threshold Guide, the following criteria may be considered in determining if the threshold of significance is met:

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

maintenance, and/or removal. If appropriate, the energy intensiveness of materials may be discussed.

- The effects of the Project on local and regional energy supplies and on requirements for additional capacity.
- The effects of the Project on peak and base period demands for electricity and other forms of energy.
- The degree to which the Project complies with existing energy standards.
- The effects of the Project on energy resources.
- The Project's projected transportation energy use requirements and its overall use of efficient transportation alternatives.
- The degree to which the Project design and/or operations incorporate energy-conservation measures, particularly those that go beyond City requirements.
- Whether the Project conflicts with adopted energy conservation plans.

With regard to Threshold (b), the Project will be evaluated for consistency with adopted energy conservation plans and policies relevant to the Project. Such adopted energy conservation plans and policies include Title 24 energy efficiency requirements, CalGreen and Los Angeles Green Building Code. Also, as discussed in Section IV.F. Greenhouse Gas Emissions, of this Draft EIR, the Project would be consistent with the SCAG 2020–2045 RTP/SCS which includes goals to reduce VMT and corresponding decrease in fuel consumption.

b) Methodology

Consistent with California PRC Section 21100(b)(3), this impact analysis evaluates the potential for the Project to result in a substantial increase in energy demand and/or wasteful use of energy during Project construction, operation and maintenance, and decommissioning. The impact analysis is informed by Appendix F of the State CEQA Guidelines. The potential impacts are analyzed based on an evaluation of whether construction and operational energy use estimates for the Project would be considered excessive, wasteful, or inefficient, taking into account that the Project would provide a new source of renewable energy.

(1) Construction

Electricity usage associated with the supply and conveyance of water used for dust control during construction was calculated using California Emissions Estimator Model (CalEEMod) Version 2016.3.2. Electricity used to power lighting, electronic equipment, and other construction activities necessitating electrical power was assumed to be negligible.

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

Petroleum emissions associated with the use of construction equipment and vehicles, which were used to calculate gallons of petroleum consumed, were also calculated using CalEEMod.

Construction of the proposed Project would consume energy resources as a result of the use of heavy-duty construction equipment, on-road trucks, and workers commuting to and from the Project Site. The energy calculations, shown in Appendix N-1, are based on the inputs of anticipated construction equipment mix as indicated in the Section IV.B, Air Quality, of this Draft EIR. Fuel consumption from construction equipment was estimated by converting the total carbon dioxide (CO_2) emissions from each construction phase to gallons using the conversion factors for CO_2 to gallons of gasoline or diesel. The conversion factor for gasoline is 8.78 kilograms per metric ton CO_2 per gallon, and the conversion factor for diesel is 10.21 kilograms per metric ton CO_2 per gallon.[24]

(2) Operation

Operation of the proposed Project would consume energy resources for the buildings' heating, ventilation, and air conditioning (HVAC) system, water demand, wastewater treatment, and other Project activities. Project electricity usage and natural gas consumption is based on the estimated total annual building load summaries (Appendix N-2). The first full year after buildout of the proposed Project was assumed to be 2030. Additional information and model results for each of the analyses previously described are presented in Appendix N-2.

c) Project Design Features

As described in Chapter III, Project Description, of this Draft EIR, the Project would be constructed to incorporate environmentally sustainable building features and construction protocols required by the Los Angeles Green Building Code and CALGreen Code, which would reduce energy use and would minimize impacts on natural resources and

[24] The Climate Registry, Default Emission Factors, May 1, 2018.

infrastructure. Additionally, the proposed buildings would also be designed and constructed to incorporate environmentally sustainable design features equivalent to a minimum Silver certification under the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) Rating System, or other equivalent green building standards. Such LEED features would include energy-efficient structures and a pedestrian- and bicycle-friendly site design. LEED standards would be incorporated in order to reduce energy usage (Project Design Feature **PDF-GHG-1** in Section IV.F, Greenhouse Gas Emissions, of this Draft EIR). The proposed Project would incorporate an environmentally sustainable design using green building technologies as identified in the principles for energy efficiency, water conservation, environmentally preferable building materials, and overall waste reduction. Accordingly, Project Design Features **PDF-AIR-4, PDF-TRF-2, PDF-HYD-1** through **PDF-HYD-10,** and **PDF-SW-1** and **PDF-SW-2** will be incorporated into the Project, as described in Section IV.F, Greenhouse Gas Emissions, of this Draft EIR.

d) Analysis of Project Impacts

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

(1) Impact Analysis

(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 operation).

(i) Construction

During Project construction, energy would be consumed in the form of electricity associated with the conveyance of water used for dust control and, on a limited basis, powering lights, electronic equipment, or other construction activities necessitating electrical power. As discussed below, construction activities, including the construction of new buildings and facilities, typically do not involve the consumption of natural gas.

Project construction would also consume energy in the form of petroleum-based fuels associated with the use of off-road construction vehicles and equipment on the Project Site, construction worker travel to and from the Project Site, and delivery and haul truck trips (e.g., hauling of demolition material to off-site reuse and disposal facilities).

(a) Electricity

Construction of the proposed Project would require the use of electric power for needed lighting and electronic equipment (such as computers inside temporary construction trailers and HVAC). The amount of electricity used during construction would be minimal because typical energy demand stems from low-level electricity consumed by several construction trailers and electrically powered hand tools. The majority of the energy used during construction would be from petroleum. 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. The electricity used for construction activities would be temporary and minimal, compared to existing and proposed operational energy use. Impacts to electricity during construction would, thus, be less than significant.

(b) Natural Gas

Construction activities, including the construction of new buildings and facilities, typically do not consume 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 and no resulting impact.

(c) Transportation Energy

Petroleum would be consumed throughout construction of the proposed Project. Fuel consumed by construction equipment would be the primary energy resource expended over the course of construction, and VMT associated with the transportation of construction materials and construction worker commutes would also result in petroleum consumption. Heavy-duty construction equipment associated with construction activities, and haul trucks involved in moving dirt around the Project Site, would rely on diesel fuel. Construction workers would travel to and from the Project Site throughout the duration of construction. It is assumed that construction workers would travel to and from the Project Site in gasoline-powered vehicles.

Heavy-duty construction equipment of various types would be used during each phase of construction. CalEEMod was used to estimate construction equipment usage, and results are included in Appendix N-1.

Fuel consumption from construction equipment was estimated by converting the total CO_2 emissions from each construction phase to gallons using conversion factors for CO_2 to gallons of gasoline or diesel. The conversion factor for gasoline is 9.13 kilograms per metric ton CO_2 per gallon, and the conversion factor for diesel is 10.35 kilograms per metric ton CO_2 per gallon.[25] The estimated diesel fuel use from construction equipment is shown in **Table IV.P-3**.

TABLE IV.P-3
CONSTRUCTION EQUIPMENT DIESEL FUEL DEMAND

Phase	Pieces of Equipment	Equipment CO_2 (MT)	kg CO_2/Gallon	Gallons
Demolition – Site 1	5	68.91	10.35	6,657.97
Site Preparation – Site 1	3	19.06	10.35	1,841.55
Grading – Site 1	4	58.04	10.35	5,607.73
Demolition – Site 2	4	21.96	10.35	2,121.74
Building Construction – Site 1	8	531.21	10.35	51,324.64
Site Preparation – Site 2	2	1.73	10.35	167.15
Grading – Site 2	5	4.03	10.35	389.37
Building Construction – Site 2	5	155.38	10.35	15,012.56
Paving – Site 2	7	7.1	10.35	685.99
Architectural Coating – Site 2	1	1.92	10.35	185.51
Demolition – Site 3	4	136.55	10.35	13,193.24
Paving – Site 1	5	13.64	10.35	1,317.87
Demolition – Site 4	5	254.6	10.35	24,599.03
Architectural Coating – Site 1	1	2.94	10.35	284.06
Demolition – Site 5	4	79.56	10.35	7,686.96
Site Preparation – Site 5	2	1.29	10.35	124.64
Grading – Site 5	5	4.71	10.35	455.07
Building Construction – Site 5	6	260.03	10.35	25,123.67
Site Preparation – Site 4	3	10.85	10.35	1,048.31
Grading – Site 4	5	20.18	10.35	1,949.76
Building Construction – Site 4	9	921.23	10.35	89,007.73
Paving – Site 5	7	7.58	10.35	732.37
Architectural Coating – Site 5	1	2.05	10.35	198.07
Paving – Site 4	6	24.24	10.35	2,342.03

[25] The Climate Registry, Default Emission Factors, April 19, 2016.

TABLE IV.P-3
CONSTRUCTION EQUIPMENT DIESEL FUEL DEMAND

Phase	Pieces of Equipment	Equipment CO_2 (MT)	kg CO_2/Gallon	Gallons
Architectural Coating – Site 4	1	3.96	10.35	382.61
Demolition – Site 6	4	33.51	10.35	3,237.68
Site Preparation – Site 6	2	1.29	10.35	124.64
Grading – Site 6	5	3.37	10.35	325.60
Building Construction – Site 6	6	198.03	10.35	19,133.33
Site Preparation – Site 3	2	0.86	10.35	83.09
Grading – Site 3	5	2.69	10.35	259.90
Building Construction – Site 3	5	116.27	10.35	11,233.82
Paving – Site 6	7	5.68	10.35	548.79
Architectural Coating – Site 6	1	1.53	10.35	147.83
Paving – Site 3	7	5.68	10.35	548.79
Architectural Coating – Site 3	1	1.53	10.35	147.83
Total				**288,230.92**

SOURCE: Appendix N-1 (pieces of equipment and equipment CO_2); The Climate Registry, Default Emission Factors, April 19, 2016 (kg/CO_2/gallon).
NOTES: CO_2 = carbon dioxide; MT = metric ton; kg = kilogram.
Gallons are determined by multiplying the equipment CO_2 by the kg CO_2/gallon factor.

Fuel consumption from worker and vendor trips is estimated by converting the total CO_2 emissions from each construction phase to gallons using the conversion factors for CO_2 to gallons of gasoline or diesel. Worker vehicles are assumed to be gasoline-fueled, and vendor/hauling vehicles are assumed to be diesel-fueled. Calculations for total worker, vendor, and hauler fuel consumption for all construction phases are provided in **Tables IV.P-4, IV.P-5,** and **IV.P-6**, respectively.

TABLE IV.P-4
CONSTRUCTION WORKER VEHICLE GASOLINE DEMAND

Phase	Trips	Vehicle CO_2 (MT)	kg CO_2/Gallon	Gallons
Demolition – Site 1	845	4.32	9.13	473.17
Site Preparation – Site 1	200	1.02	9.13	111.72
Grading – Site 1	750	3.83	9.13	419.50
Demolition – Site 2	420	3.00	9.13	328.59
Building Construction – Site 1	74,698	366.12	9.13	40,100.77
Site Preparation – Site 2	20	0.10	9.13	10.95
Grading – Site 2	78	0.40	9.13	43.81
Building Construction – Site 2	5,236	25.85	9.13	2,831.33
Paving – Site 2	270	1.29	9.13	141.29
Architectural Coating – Site 2	45	0.21	9.13	23.00
Demolition – Site 3	2,610	12.23	9.13	1,339.54
Paving – Site 1	299	1.43	9.13	156.63
Demolition – Site 4	3,120	14.60	9.13	1,599.12
Architectural Coating – Site 1	782	3.73	9.13	408.54
Demolition – Site 5	1,520	6.77	9.13	741.51
Site Preparation – Site 5	15	0.07	9.13	7.67
Grading – Site 5	91	0.41	9.13	44.91
Building Construction – Site 5	32,046	138.96	9.13	15,220.15
Site Preparation – Site 4	80	0.34	9.13	37.24
Grading – Site 4	247	1.06	9.13	116.10
Building Construction – Site 4	39,387	163.34	9.13	17,890.47
Paving – Site 5	288	1.23	9.13	134.72
Architectural Coating – Site 5	320	1.37	9.13	150.05
Paving – Site 4	465	1.86	9.13	203.72
Architectural Coating – Site 4	341	1.37	9.13	150.05
Demolition – Site 6	640	2.49	9.13	272.73
Site Preparation – Site 6	15	0.06	9.13	6.57
Grading – Site 6	65	0.25	9.13	27.38
Building Construction – Site 6	12,699	49.02	9.13	5,369.11
Site Preparation – Site 3	10	0.04	9.13	4.38
Grading – Site 3	52	0.20	9.13	21.91
Building Construction – Site 3	5,520	20.87	9.13	2,285.87
Paving – Site 6	216	0.82	9.13	89.81

TABLE IV.P-4
CONSTRUCTION WORKER VEHICLE GASOLINE DEMAND

Phase	Trips	Vehicle CO_2 (MT)	kg CO_2/Gallon	Gallons
Architectural Coating – Site 6	120	0.45	9.13	49.29
Paving – Site 3	216	0.82	9.13	89.81
Architectural Coating – Site 3	60	0.23	9.13	25.19
Total				**90,926.62**

SOURCES: Appendix N-1 (construction worker CO_2); The Climate Registry, Default Emission Factors, April 19, 2016 (kg/CO_2/gallon).
NOTES: CO_2 = carbon dioxide; MT = metric ton; kg = kilogram. Gallons are determined by multiplying the equipment CO_2 by the kg CO_2/gallon factor and dividing by 1,000.

TABLE IV.P-5
CONSTRUCTION VENDOR TRUCK DIESEL FUEL DEMAND

Phase	Trips	Vehicle CO_2 (MT)	kg/CO_2/Gallon	Gallons
Demolition – Site 1	0	0	10.35	0
Demolition – Site 2	0	0	10.35	0
Site Preparation – Site 1	0	0	10.35	0
Grading – Site 1	0	0	10.35	0
Building Construction – Site 1	31,382	386.44	10.35	37,337.20
Site Preparation – Site 2	0	0	10.35	0
Grading – Site 2	0	0	10.35	0
Building Construction – Site 2	2,772	34.20	10.35	3,304.35
Paving – Site 2	0	0	10.35	0
Architectural Coating – Site 2	0	0	10.35	0
Demolition – Site 3	0	0	10.35	0
Paving – Site 1	0	0	10.35	0
Demolition – Site 4	0	0	10.35	0
Architectural Coating – Site 1	0	0	10.35	0
Demolition – Site 5	0	0	10.35	0
Site Preparation – Site 5	0	0	10.35	0
Grading – Site 5	0	0	10.35	0
Building Construction – Site 5	12,426	146.10	10.35	14,115.94
Site Preparation – Site 4	0	0	10.35	0
Grading – Site 4	0	0	10.35	0

TABLE IV.P-5
CONSTRUCTION VENDOR TRUCK DIESEL FUEL DEMAND

Phase	Trips	Vehicle CO_2 (MT)	kg/CO_2/Gallon	Gallons
Building Construction – Site 4	20,039	234.09	10.35	22,617.39
Paving – Site 5	0	0	10.35	0
Architectural Coating – Site 5	0	0	10.35	0
Paving – Site 4	0	0	10.35	0
Architectural Coating – Site 4	0	0	10.35	0
Demolition – Site 6	0	0	10.35	0
Site Preparation – Site 6	0	0	10.35	0
Grading – Site 6	0	0	10.35	0
Building Construction – Site 6	4,980	57.58	10.35	5,563.29
Site Preparation – Site 3	0	0	10.35	0
Grading – Site 3	0	0	10.35	0
Building Construction – Site 3	2,760	31.83	10.35	3,075.36
Paving – Site 6	0	0	10.35	0
Architectural Coating – Site 6	0	0	10.35	0
Paving – Site 3	0	0	10.35	0
Architectural Coating – Site 3	0	0	10.35	0
Total				**86,013.53**

SOURCES: Appendix N-1 (construction worker CO_2); The Climate Registry, Default Emission Factors, April 19, 2016 (kg/CO_2/gallon).
NOTES: CO_2 = carbon dioxide; MT = metric ton; kg = kilogram. Gallons are determined by multiplying the equipment CO_2 by the kg CO_2/gallon factor and dividing by 1,000.

TABLE IV.P-6
CONSTRUCTION HAUL TRUCK DIESEL FUEL DEMAND

Phase	Trips	Vehicle CO_2 (MT)	kg CO_2/Gallon	Gallons
Demolition – Site 1	96	3.71	10.35	358.45
Demolition – Site 2	22	0.85	10.35	82.13
Site Preparation – Site 1	2,969	114.62	10.35	11,074.40
Grading – Site 1	5,938	229.24	10.35	22,148.79
Building Construction – Site 1	0	0	10.35	0
Site Preparation – Site 2	48	1.85	10.35	178.74
Grading – Site 2	48	1.85	10.35	178.74
Building Construction – Site 2	0	0	10.35	0
Paving – Site 2	0	0	10.35	0
Architectural Coating – Site 2	0	0	10.35	0
Demolition – Site 3	383	14.15	10.35	1,367.15
Paving – Site 1	0	0	10.35	0
Demolition – Site 4	548	20.21	10.35	1,952.66
Architectural Coating – Site 1	0	0	10.35	0
Demolition – Site 5	609	21.92	10.35	2,117.87
Site Preparation – Site 5	439	15.80	10.35	1,526.57
Grading – Site 5	878	31.60	10.35	3,053.14
Building Construction – Site 5	0	0	10.35	0
Site Preparation – Site 4	651	23.30	10.35	2,251.21
Grading – Site 4	1,303	46.64	10.35	4,506.28
Building Construction – Site 4	0	0	10.35	0
Paving – Site 5	0	0	10.35	0
Architectural Coating – Site 5	0	0	10.35	0
Paving – Site 4	0	0	10.35	0
Architectural Coating – Site 4	0	0	10.35	0
Demolition – Site 6	25	0.88	10.35	85.02
Site Preparation – Site 6	503	17.75	10.35	1,714.98
Grading – Site 6	1,005	35.46	10.35	3,426.09
Building Construction – Site 6	0	0	10.35	0
Site Preparation – Site 3	169	5.94	10.35	573.91
Grading – Site 3	337	11.84	10.35	1,143.96
Building Construction – Site 3	0	0	10.35	0

TABLE IV.P-6
CONSTRUCTION HAUL TRUCK DIESEL FUEL DEMAND

Phase	Trips	Vehicle CO_2 (MT)	kg CO_2/Gallon	Gallons
Paving – Site 6	0	0	10.35	0
Architectural Coating – Site 6	0	0	10.35	0
Paving – Site 3	0	0	10.35	0
Architectural Coating – Site 3	0	0	10.35	0
Total				**57,740.10**

SOURCES: Appendix N-1 (construction worker CO_2); The Climate Registry, Default Emission Factors, April 19, 2016 (kg/CO_2/gallon).
NOTES: CO_2 = carbon dioxide; MT= metric ton; kg = kilogram. Gallons are determined by multiplying the equipment CO_2 by the kg CO_2/gallon factor and dividing by 1,000.

As shown in Tables IV.P-3 through IV.P-6,[26] construction of the proposed Project is estimated to consume approximately 431,985 gallons of diesel and 90,927 gallons of gasoline. According to CARB's EMFAC Web Database, Los Angeles County on-road transportation sources were projected to consume 4.07 billion gallons of gasoline and 0.63 billion gallons of diesel fuel in 2019.[27] For comparison purposes, the fuel usage during Project construction would represent approximately 0.07 percent of the 2019 annual on-road diesel energy consumption and 0.002 percent of 2019 annual on-road diesel energy consumption in Los Angeles County, as shown in Appendix N-1, of this Draft EIR.

The proposed Project would be required to comply with CARB's Airborne Toxics Control Measure, which restricts heavy-duty diesel vehicle idling time to 5 minutes. As described further in Criteria 2 through 8 below, petroleum-based fuel use during construction of the proposed Project would be temporary and minimal, in comparison to existing and proposed operational use, and would not be wasteful or inefficient. Therefore, impacts would be less than significant during construction.

(ii) Operation

During operation of the Project, energy would be consumed for multiple purposes, including, but not limited to, HVAC; refrigeration; lighting; and the use of electronics, equipment, and machinery. Energy would also be consumed during Project operations related to water usage, solid waste disposal, and vehicle trips. As shown in **Table IV.P-7**

[26] Gasoline and diesel consumption totals provided may not match the sums presented in tables due to rounding.
[27] CARB, EMFAC2017 Web Database, accessed December 2020.

below, the Project's buildout energy demand would be a net increase of 1,533,820 kWh of electricity per year, a net decrease of 58,640 therms of natural gas per year, 650,535 gallons of gasoline per year, and 41,390 gallons of diesel fuel per year.

(a) Electricity

At full buildout, the proposed Project's operational phase would require electricity for building operation (appliances, lighting, etc.). The proposed Project would also be required to comply with the 2019 Title 24 standards or the most recent standards at the time of building issuance.

Phase 1 of the Project includes the construction of a 130,000-square-foot medical office building (MOB) on Site 1, an enclosed parking structure on Site 1, and a procedure addition to a MOB on Site 2 (refer to Chapter III of this Draft EIR for Phase 1 details). The worst-case scenario for Phase 2 of the Project (Option B) includes the construction of a retail/commercial building on Site 5, a parking structure on Site 5, and an MOB on Site 4 (refer to Chapter III for Phase 2 details). The worst-case scenario for Phase 3 of the Project (Option B) includes construction of an MOB on Site 3 and expansion of an existing parking structure on Site 6 (refer to Chapter III for Phase 3 details). As shown in **Table IV.P-7**, with compliance with Title 24 standards and applicable CALGreen requirements, at buildout the Project would result in a projected on-site net increase of 1,533,820 kWh per year in electricity demand. Additional details regarding these calculations are provided in Appendix N-2.

TABLE IV.P-7
PHASES 1 THROUGH 3 (OPTION B) ESTIMATED PROJECT OPERATION ELECTRICITY DEMAND

Land Use	Size (square feet)	Total (kWh/yr)
Phase 1		
Site 1 (1345 North Vermont Avenue) – Medical Office Building	130,000	1,413,100
Site 1 (1345 North Vermont Avenue) – Enclosed Parking Structure	302,800	393,640
Site 2 (4760B Sunset Boulevard) – Procedure Addition to Medical Office Building	50,000	543,500
Phase 2 (Option B)		
Site 5 (1517 Vermont Avenue) – Parking Structure	230,600	299,780
Site 5 (1517 Vermont Avenue) – Retail/Commercial Space	2,300	0
Site 4 (1526 North Edgemont Street) - Medical Office Building Option B	177,300	2,482,200
Phase 3 (Option B)		
Site 3 (1505 Edgemont Street) – Medical Office Building Option B	73,500	798,945
Site 6 (4950 Sunset Boulevard) – Parking Structure Expansion	122,400	159,120
Existing Facilities to be Demolished		
Demolition of Apartments	*2,000*	*8,236*
Demolition of Existing Medical Office Building, Site 1 (1345 North Vermont Avenue)	*219,110*	*4,051,381*
Demolition of Existing Medical Office Building, Site 2 (4760B Sunset Boulevard)	*15,110*	*279,439*
Demolition of 86-space parking lot (1)	*34,400*	*12,040*
Demolition of 0.3-acre parking lot (2)	*13,068*	*4,574*
Demolition of parking structure	*114,736*	*200,795*
Project Total		**6,090,285**
Existing		*4,556,465*
Net Total		**1,533,820**

SOURCES: Appendix N-2; Ted Jacob Engineering Group, Kaiser LAMC Campus – Sunset Master Plan, August 2018.
NOTE: kWh/yr = kilowatt hours per year.

In addition to complying with CALGreen Code, the Project will also implement Project Design Feature **PDF-GHG-1**, presented in Section IV.F, Greenhouse Gas Emissions, of this Draft EIR, which would further reduce the Project's energy demand. In addition, LADWP is required to procure at least 33 percent of its energy portfolio from renewable sources by 2020. The current sources procured by LADWP include wind, solar, and geothermal sources. These sources account for 34 percent of LADWP's overall energy mix in 2019, the most recent year for which data are available.[28] LADWP forecasts that its total energy sales in 2030 (the Project buildout year) will be 24,738 GWh of electricity.[29] Based on the Project's estimated electrical consumption of 1,533,820 kWh/year, the Project would account for approximately 0.006 percent of LADWP's total projected sales during 2030 for the Project's 2030 buildout year. Furthermore, Project Design Feature **PDF-GHG-1** would require that the proposed Project achieve LEED Gold standards and that Kaiser Permanente would contract for 100 percent of off-site generated power to be green power, renewable energy certificates, or carbon offsets. Impacts would be less than significant.

(b) Natural Gas

Natural gas would be directly consumed throughout operation of the proposed Project, primarily through building heating.

Phase 1 of the Project includes MOBs (refer to Chapter III for Phase 1 details). Based on the worst-case scenario, Phase 2 of the Project includes a retail/commercial building and a hospital under Option B (refer to Chapter III for Phase 2 details). Based on the worst-case scenario, Phase 3 of the Project includes an MOB under Option B (refer to Chapter III for Phase 3 details). As shown in **Table IV.P-8**, compliance with the latest Title 24 standards and applicable CALGreen Code requirements means buildout of the Project would result in a projected on-site net decrease of 58,640 therms per year (or approximately 5,864,000 kBTU per year) of natural gas. Additional details regarding these calculations are provided in Appendix N-2.

[28] CEC, 2016 Power Content Label: Los Angeles Department of Water and Power, accessed October 2018.
[29] LADWP, 2017 Power Strategic Long-Term Resource Plan, page 134, Table 3-1, December 2017.

TABLE IV.P-8
PHASES 1 THROUGH 3 (OPTION B) ESTIMATED PROJECT OPERATION NATURAL GAS DEMAND

Land Use	Size (square feet)	Total (therms/yr)
Phase 1		
Site 1 (1345 North Vermont Avenue) – Medical Office Building	130,000	16,770
Site 1 (1345 North Vermont Avenue) – Enclosed Parking Structure	302,800	0
Site 2 (4760B Sunset Boulevard) – Procedure Addition to Medical Office Building	50,000	6,450
Phase 2 (Option B)		
Site 5 (1517 Vermont Avenue) – Parking Structure	230,600	0
Site 5 (1517 Vermont Avenue) – Retail/ Commercial Space	2,300	0
Site 4 (1526 North Edgemont Street) – Medical Office Building Option B	177,300	27,482
Phase 3 (Option B)		
Site 3 (1505 Edgemont Street) – Medical Office Building Option B	73,500	9,482
Site 6 (4950 Sunset Boulevard) – Parking Structure Expansion	122,400	0
Existing Facilities to be Demolished		
Demolition of Apartments	*2,000*	*282*
Demolition of Existing Medical Office Building (1)	*219,110*	*110,893*
Demolition of Existing Medical Office Building (2)	*15,110*	*7,649*
Demolition of 86-space parking lot (1)	*34,400*	*0*
Demolition of 0.3-acre parking lot (2)	*13,068*	*0*
Demolition of parking structure	*114,736*	*0*
Project Total		**60,184**
Existing		*118,824*
Net Total		**(58,640)**

SOURCES: Appendix N-2; Ted Jacob Engineering Group, Kaiser LAMC Campus – Sunset Master Plan, August 2018.
NOTE: therms/yr = therms per year.

In addition to complying with the CALGreen Code, the Project will also implement Project Design Feature **PDF-HYD-6**, which, as detailed in Section IV.H, would reduce natural gas consumption through the installation of efficient domestic water heating systems.

As provided in Table IV.P-8, compliance with 2019 Title 24 standards and applicable 2019 CALGreen Code requirements means buildout of the Project would generate an on-site net decrease of 58,640 therms per year (or approximately 5,864,000 kBTU per year) of natural gas. As discussed above, in addition to complying with applicable regulatory requirements regarding energy conservation (e.g., Title 24, Part 6 Building Energy Efficiency Standards[30] and CALGreen Code), the Project will implement project design features to further reduce energy use.

In 2017, SoCalGas supplied 2,504 million cubic feet per day to its service area. Assuming a conversion factor of 1 million cubic feet to 1 thousand dekatherms, this equates to 25 million therms per day. Therefore, the Project would consume 0.0006% of SoCalGas's daily supply.[31]

Overall, the Project would result in a net decrease in natural gas demand, as compared to the existing condition, and impacts would be less than significant.

(c) Transportation Energy

During operation of the proposed Project, the majority of fuel consumption would involve the use of motor vehicles traveling to and from the Project Site. Petroleum fuel consumption associated with the proposed Project is a function of the VMT as a result of proposed Project operation. As discussed in Sections IV.B, Air Quality; IV.F, Greenhouse Gas Emissions; and IV.M, Transportation and Traffic, of this Draft EIR, the analysis has estimated the number of trips associated with the proposed Project, which would result in additional fuel consumption and energy use. The proposed Project would result in a total of 17,863,870 VMT per year.

Similar to construction worker and vendor trips, fuel consumption was estimated by converting the total CO_2 emissions from each land use type to gallons using the conversion factors for CO_2 to gallons of gasoline or diesel. Based on the annual fleet mix provided in CalEEMod, 92.5 percent of the fleet range from light-duty to medium-duty vehicles and motorcycles were assumed to run on gasoline. The remaining 7.5 percent of vehicles represent medium-heavy duty to heavy-duty vehicles and buses/recreational vehicles, which were assumed to run on diesel.

[30] Refer to Section IV.F, Greenhouse Gas Emissions for a discussion of Title 24, Building Energy Efficiency Standards

[31] California Gas and Electric Utilities, 2018 California Gas Report, p. 80, 2018.

Calculations for annual mobile-source fuel consumption are provided in **Table IV.P-9**. Mobile sources from the proposed Project would result in approximately 650,535 gallons of gasoline fuel consumed per year and approximately 41,390 gallons of diesel fuel consumed per year at Project buildout.

TABLE IV.P-9
MOBILE SOURCE FUEL CONSUMPTION – OPERATION

Fuel	Vehicle MT CO_2	kg CO_2/Gallon	Gallons
Gasoline	5,939	9.13	650,535
Diesel Fuel	428	10.35	41,390
Total			**691,925**

SOURCES: The Climate Registry, Default Emission Factors, April 19, 2016.
NOTES: MT = metric ton; CO_2 = carbon dioxide; kg = kilogram. Gallons are determined by multiplying the equipment CO_2 by the kg CO_2/gallon factor and dividing by 1000.

As discussed in Section IV.M, Transportation, of this Draft EIR, public bus transit service within the Kaiser Permanente Medical Center campus study area is currently provided by Metro and LADOT DASH and Commuter Express Transit Service. The Metro B Line Vermont/Sunset Station is located at the northeast corner of the Vermont Avenue/Sunset Boulevard intersection. A portal is situated within the Medical Center campus at the northwest corner of the Vermont Avenue/Sunset Boulevard intersection that connects with the subterranean Metro B Line Vermont/Sunset Station. A summary of the existing transit service, including the transit route, destinations and peak hour headways is presented in Table IV.M-3 in Section IV.M, Transportation, of this Draft EIR.

The Project would also provide bicycle parking, and the Project would be designed to enhance the walkability of the Project Site, through methods, such as pedestrian-level wayfinding signage, landscaping, lighting along pedestrian walkways, outdoor seating areas, and shade trees.

As such, the Project's siting would minimize transportation fuel consumption through the reduction of VMT, as described above and discussed further in Section IV.F, Greenhouse Gas Emissions and Section IV.M, Transportation, of this Draft EIR. The City of Los Angeles' VMT Calculator was used to estimate the proposed Project's VMT, which considers the TDM strategies described above. As summarized in Table IV.P-9, when accounting for the measures that would be implemented to reduce VMT, the Project's estimated petroleum-based fuel usage would be approximately 650,535 gallons of gasoline and 41,390 gallons of diesel per year, or a total of 691,925 gallons of petroleum-based fuels annually. This would be less than the existing annual consumption of 911,318

gallons of petroleum-based fuels associated with the existing Project Site land uses. Therefore, impacts would be less than significant during operation.

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

(i) Electricity

During construction, electricity would be intermittently consumed during the conveyance of the water used to control fugitive dust, as well as to provide electricity for temporary lighting and other general construction activities. The electricity demand at any given time would vary throughout the construction period based on the construction activities being performed and would cease upon completion of construction. When not in use, electrical equipment would be powered off so as to avoid unnecessary energy consumption. The electricity used for construction activities would be temporary and minimal; it would be within the supply and infrastructure service capabilities of LADWP; and it would not require additional capacity. Furthermore, the electricity demand during construction would be less than the existing condition and would be offset with the removal of the existing on-site uses which currently generate a demand for electricity.

The Project's operation would result in a slight increase in electricity as compared to the existing condition. Project Design Feature **PDF-GHG-1** would require the installation of an on-site photovoltaic (PV) system and it would require that Kaiser contract for 100 percent of off-site generated power to be green power, renewable energy certificates, or carbon offsets.

Therefore, it is anticipated that LADWP's existing and planned local and regional electricity capacity and electricity supplies would be sufficient to support the Project's electricity demand, which would not require additional capacity. Impacts would be less than significant.

(ii) Natural Gas

Construction activities, including the construction of new buildings and facilities, typically do not involve the consumption of natural gas. Accordingly, natural gas would not be supplied to support Project construction activities; thus, there would be no natural gas demand generated by construction, resulting in a net decrease when compared to the existing condition.

In relation to Project operation, please refer to the discussion in Criteria 1. The Project would result in a net decrease in natural gas consumption as compared to

the existing condition. Therefore, it is anticipated that SoCalGas's existing and planned local and regional natural gas supplies would be sufficient to support the Project's natural gas demand, which would not require additional capacity. Impacts would be less than significant.

(iii) Transportation Energy

Transportation fuel usage during Project construction activities would represent approximately 0.07 percent of the 2019 annual on-road diesel energy consumption (634 million gallons) and 0.002 percent of the 2019 annual gasoline energy consumption (4.07 billion gallons) within Los Angeles County, respectively. As energy consumption during Project construction activities would be relatively negligible, the Project would not likely affect regional energy consumption during the construction period and would not require additional capacity.

At buildout, Project operation would consume a total of 650,535 gallons of gasoline and a total of 41,390 gallons of diesel per year, or a total of 691,925 gallons of petroleum-based fuels per year. For comparison purposes, the transportation-related fuel usage for the Project would represent approximately 0.02 percent of the 2019 annual on-road gasoline (4.07 billion gallons) and approximately 0.11 percent of the annual on-road diesel-related energy consumption (634 million gallons) in Los Angeles County, as shown in Appendix N-2. As a result, petroleum usage caused by the Project would not likely have a significant effect on local and regional energy supplies or require additional capacity. Impacts would be less than significant.

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

As discussed above, the electricity used for construction activities would be temporary and minimal and would be within the supply and infrastructure service capabilities of LADWP.

Operation of the Project would result in a net decrease in electricity demand. LADWP forecasts that its total energy sales in 2030 (the Project buildout year) will be 24,738 GWh of electricity.[32] Based on the Project's estimated electrical consumption of 1,533,820 kWh/year, the Project would account for approximately 0.006 percent of LADWP's total projected sales during 2030 for the Project's 2030 buildout year. Regarding peak load conditions, the LADWP experienced a peak of 6,432 MW on August 31, 2017. Based on LADWP estimates for 2017, the base case peak demand for the power grid is 5,854

[32] LADWP, 2017 Power Strategic Long-Term Resource Plan, page 134, Table 3-1, December 2017.

MW.[33] Under peak conditions, the Project would consume a total of 1,533,820 kWh on an annual basis, which is equivalent to a daily peak load of 337 kW.[34] In comparison to the LADWP power grid base peak load of 5,854 MW in 2017, the Project would represent approximately 0.006 percent of the LADWP base peak load conditions. In addition, LADWP's annual growth projection in peak demand of the electrical power grid of 0.4 percent would be sufficient to account for future electrical demand by the Project.

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, and there would be no natural gas demand generated by construction, resulting in a net decrease when compared to existing conditions.

As stated above, the Project would result in an estimated net decrease is 58,640 therms per year (or approximately 5,864,000 kBTU per year) of natural gas during operation. In 2017, SoCal gas supplied 2,504 million cubic feet per day to its service area. Assuming a conversion factor of 1 million cubic feet to 1 thousand dekatherms, this equates to 25 million therms per day. Therefore, the Project would consume 0.0006 percent of SoCal Gas's daily supply.[35]

Transportation fuel usage during Project construction activities would represent approximately 0.07 percent of the 2019 annual on-road diesel energy consumption (634 million gallons) and 0.002 percent of the 2019 annual gasoline energy consumption (4.07 billion gallons) within Los Angeles County, respectively. As energy consumption during Project construction activities would be relatively negligible, the Project would not likely affect regional energy consumption in years during the construction period and would not require additional capacity.

At buildout, Project operation would consume a total of 650,535 gallons of gasoline and a total of 41,390 gallons of diesel per year, or a total of 691,925 gallons of petroleum-based fuels per year. For comparison purposes, the transportation-related fuel usage for the Project would represent approximately 0.02 percent of the 2019 annual on-road gasoline (4.07 billion gallons) and approximately 0.11 percent of the annual on-road diesel-related energy consumption (634 million gallons) in Los Angeles County, as shown in Appendix N-2. As a result, petroleum usage caused by the Project would not likely have a significant effect on local and regional energy supplies or require additional capacity. Impacts would be less than significant.

---

[33] LADWP, 2017 Power Strategic Long-Term Resource Plan, 2017 Retail Electric Sales and Demand Forecast, p. 6, December 2017.

[34] California Public Utilities Commission, Report: System Efficiency of California's Electric Grid, p.11, Figure 6, May 22, 2017.

[35] California Gas and Electric Utilities, 2018 California Gas Report, p. 80, accessed October 2018.

The electricity, natural gas, and transportation energy supplies would be sufficient to serve the proposed Project's peak energy consumptions, and impacts would be less than significant.

(d) The Degree to which the Project Complies with Existing Energy Standards.

Electricity and natural gas usage during Project operations, as presented in Tables IV.P-7 and IV.P-8, respectively, would comply with 2019 Title 24 standards and applicable 2019 CALGreen Code requirements and Los Angeles Green Building Code. Therefore, Project operational activities would comply with existing energy standards with regards to electricity and natural gas usage.

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

Therefore, Project operational activities would comply with existing energy standards with regards to transportation fuel consumption. Impacts would be less than significant.

(e) Effects of the Project on Energy Resources.

As discussed above, LADWP's electricity generation is derived from a mix of nonrenewable and renewable sources such as coal, natural gas, solar, geothermal, wind, and hydropower. The LADWP's most recently adopted 2017 Power Strategic Long-Term Resource Plan identifies adequate resources to support future generation capacity. The Project would implement Project Design Feature **PDF-GHG-1**, which would further reduce electricity demand. Therefore, Project construction and operation activities would have a less-than-significant impact on electricity supply because the Project would result in a minimal increase in electricity demand.

Natural gas supplied to Southern California is mainly sourced from out of state with a small portion originating in California. Sources of natural gas for the Southern California region are obtained from locations throughout the western U.S. as well as Canada.[36]

[36] California Gas and Electric Utilities, 2018 California Gas Report, accessed October 2018.

According to the U.S. Energy Information Administration, the U.S. currently has over 90 years of natural gas reserves based on 2016 consumption.[37] Compliance with energy standards is expected to result in more efficient use of natural gas (lower consumption) in future years. The Project would implement Project Design Feature **PDF-HYD-6** (efficient domestic water heating systems), which would further reduce natural gas demand. Therefore, Project construction and operation activities would have a less-than-significant impact on natural gas supply because the Project would result in a net decrease in natural gas demand.

Transportation fuels (gasoline and diesel) are produced from crude oil, which is imported from various regions around the world. Based on current proven reserves, crude oil production would be sufficient to meet over 50 years of consumption.[38] The Project would also comply with CAFE standards, which would result in more efficient use of transportation fuels (lower consumption). Project-related vehicle trips would also comply with Pavley and Low Carbon Fuel Standards, which are designed to reduce vehicle GHG emissions but would also result in fuel savings in addition to CAFE standards. Therefore, Project construction and operation activities would have a negligible effect on the transportation fuel supply.

As discussed above in the Regulatory Framework, one of the objectives of SB 350 is to increase procurement of California's electricity from renewable sources from 33 percent to 50 percent by 2030. Accordingly, LADWP is required to procure at least 50 percent of its energy portfolio from renewable sources by 2030. The current sources of renewable energy procured by LADWP include wind, solar, and geothermal sources. These sources account for 34 percent of LADWP's overall energy mix in 2019, the most recent year for which data are available.[39] This represents the available off-site renewable sources of energy that would meet the Project's energy demand.

With regard to on-site renewable energy sources, the Project's buildings will have solar panels that will generate renewable energy on site and reduce demand for energy produced off-site. Due to the Project Site's location, however, other on-site renewable energy sources would not be feasible to install on site as there are no local sources of energy from the following sources: biodiesel, biomass hydroelectric and small hydroelectric, digester gas, fuel cells, landfill gas, municipal solid waste, ocean thermal, ocean wave, and tidal current technologies, or multi-fuel facilities using renewable fuels. Additionally, wind-powered energy is not viable on the Project Site due to the lack of

[37] U.S. Energy Information Administration, How much natural gas does the United States have, and how long will it last? Accessed October 2018.
[38] BP Global, Oil reserves, accessed October 2018.
[39] LADWP, 2020 Power Content Label: Los Angeles Department of Water and Power, accessed December 2020.

sufficient wind in the Los Angeles basin. Specifically, based on a map of California's wind resource potential, the Project Site is not identified as an area with wind resource potential.[40] However, Project Design Feature **PDF-GHG-1** would require the installation of an on-site PV system. Project Design Feature **PDF-GHG-1** would also require that Kaiser Permanente contract for 100 percent of off-site generated power to be green power, renewable energy certificates, or carbon offsets. Impacts would be less than significant.

(f) The Project's Projected Transportation Energy Use Requirements and its Overall Use of Efficient Transportation Alternatives.

During operation of the proposed Project, the majority of fuel consumption would involve the use of motor vehicles traveling to and from the Project Site. Petroleum fuel consumption associated with the proposed Project is a function of the VMT as a result of proposed Project operation. As discussed in Sections IV.B, Air Quality; IV.F, Greenhouse Gas Emissions; and IV.M, Transportation and Traffic, of this Draft EIR, the analysis has estimated the number of trips associated with the proposed Project, which would result in additional fuel consumption and energy use associated with transportation. The proposed Project would result in a total of 17,863,870 VMT per year.

Calculations for annual mobile-source fuel consumption are provided in Table IV.P-9, Mobile Source Fuel Consumption – Operation. Mobile sources from the proposed Project would result in approximately 650,535 gallons of gasoline fuel consumed per year and approximately 41,390 gallons of diesel fuel consumed per year at Project buildout. This would be less than the existing annual consumption of 911,318 gallons of petroleum-based fuels associated with the existing Project Site land uses. By comparison, California as a whole consumes approximately 19.3 billion gallons of petroleum per year.[41]

As discussed in Section IV.M, Transportation, of this Draft EIR, public bus transit service within the Medical Center campus is currently provided by Metro and LADOT DASH and Commuter Express Transit Service. The Metro B Line subway Vermont/Sunset Station is located at the northeast corner of the Vermont Avenue/Sunset Boulevard intersection. A portal is situated within the Medical Center campus at the northwest corner of the Vermont Avenue/Sunset Boulevard intersection that connects with the subterranean Metro B Line Vermont/Sunset Station. A summary of the existing transit service, including the transit route, destinations, and peak-hour headways is presented in Table IV.M-3.

[40] CEC, Wind Resource Area & Wind Resources, accessed October 2018.
[41] CEC, Diesel Fuel Data, Facts, and Statistics, accessed October 2018.

The Project would also provide bicycle parking, and the Project would be designed to enhance the walkability of the Project Site, through methods such as pedestrian-level wayfinding signage, landscaping, lighting along pedestrian walkways, outdoor seating areas, and shade trees. Bicycle parking would be provided at the 1517 North Vermont Parking Structure, 4950 Sunset Parking Structure, 1345 North Vermont Parking Structure. At a minimum, 37 short-term and 74 long-term parking spaces would be provided.

As such, the Project's siting would minimize transportation fuel consumption through the reduction of VMT, as described above and discussed further in Section IV.F, Greenhouse Gas Emissions, of this Draft EIR. As summarized in Table IV.P-9, when accounting for the measures that would be implemented to reduce VMT, the Project's estimated petroleum-based fuel usage would be approximately 650,535 gallons of gasoline and 41,390 gallons of diesel per year, or a total of 691,925 gallons of petroleum-based fuels annually. This would be less than the existing annual consumption of 911,318 gallons of petroleum-based fuels associated with the existing Project Site land uses. Therefore, the Project would encourage the use of efficient transportation alternatives. Impacts would be less than significant.

(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 Los Angeles Green Building Code requires compliance with CALGreen Code and California's Building Energy Efficiency Standards.[42] The City has also adopted several plans and regulations to promote the reduction, reuse, recycling, and conversion of solid waste going to disposal systems. These regulations include the City of Los Angeles Solid Waste Management Policy Plan, the RENEW LA Plan, and the Exclusive Franchise System Ordinance (Ordinance No. 182986). These solid waste reduction programs and ordinances help to reduce the number of trips associated with hauling solid waste, thereby reducing the amount of petroleum-based fuel consumed. Furthermore, recycling efforts indirectly reduce the energy necessary to create new products made of raw material, which is an energy-intensive process. Thus, through compliance with the City's construction-related solid waste recycling programs, the Project would contribute to reduced fuel-related energy consumption.

The Project will incorporate sustainability design features in accordance with regulatory requirements as described in Section IV.F, Greenhouse Gas Emissions, of this Draft EIR.

[42] Refer to Section IV.F, Greenhouse Gas Emissions for a discussion of Title 24, Part 6 Building Energy Efficiency Standards.

In addition to compliance with energy-efficiency standards and recycling initiatives, the Project would also include Project Design Feature **PDF-GHG-1,** which would reduce the Project's energy consumption. Project Design Feature **PDF-GHG-1** would require the installation of an on-site PV system and LED lighting and occupancy sensors for exterior and interior lighting. Project Design Feature **PDF-GHG-1** would also require that Kaiser Permanente contract for 100 percent of off-site generated power to be green power, renewable energy certificates, or carbon offsets. The Project will also implement Project Design Feature **PDF-AQ-6** (enhanced walkability), as discussed in Section IV. B, Air Quality, of this Draft EIR, as well as Project Design Feature **PDF-TRF-2** (Transportation Demand Management) described in Section IV.M, Transportation, of this Draft EIR which would result in reduced fossil-fueled vehicle trips and associated GHGs. Water conservation measures would also reduce the need for water and wastewater conveyance, which are described in Section IV.H, Hydrology and Water Quality, of this Draft EIR and include Project Design Features **PDF-HYD-1** (high-efficiency toilets), **PDF-HYD-2** (no-flush urinals), **PDF-HYD-3** (low flow showerheads), **PDF-HYD-4** (domestic water heating systems), **PDF-HYD-5** (tankless water heaters), and **PDF-HYD-6** through **PDF-HYD-10** (water efficient irrigation and landscaping). Finally, measures that reduce solid waste, including Project Design Features **PDF-SW-1** (construction materials and recycling) and **PDF-SW-2** (reduce, reuse, and recycle solid waste from hospital operations), as described in Section IV.O.3, Service Systems – Solid Waste, of this Draft EIR, would also reduce GHGs associated with landfill off-gassing. The Project would incorporate energy-conservation measures that go beyond City requirements; therefore, impacts would be less than significant.

As demonstrated in the analysis above, the Project would not cause wasteful, inefficient, and unnecessary consumption of energy during construction or operation. The Project's energy requirements would not significantly affect local and regional supplies or require additional capacity. The Project's energy usage during peak and base periods would also be consistent with electricity and natural gas 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 will comply with existing energy efficiency requirements such as CALGreen Code, as well as include energy conservation measures beyond requirements. **In summary, the Project's energy demands would not significantly affect available local and regional energy supplies, would comply with existing energy efficiency standards, and would not require additional capacity. Therefore, Project impacts related to energy use would be less than significant during construction and operation.**

(2) Mitigation Measures

Impacts relating to wasteful, inefficient, and unnecessary consumption of energy resources would be less than significant. Therefore, no mitigation measures are required.

(3) Level of Significance after Mitigation

Impacts relating to wasteful, inefficient, and unnecessary consumption of energy resources were determined to be less than significant. Therefore, no mitigation measures were required or included.

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

(1) Impact Analysis

(a) Whether the Project Conflicts with Adopted Energy Conservation Plans.

The Project would comply with applicable regulatory requirements for the design of new buildings, including the provisions set forth in the 2019 CALGreen Code and California's Building Energy Efficiency Standards (Title 24, Part 6), which have been incorporated into the City of Los Angeles Green Building Code.

With regard to transportation uses, the Project design would reduce VMT throughout the region and encourage use of alternative modes of transportation. The Project would also be consistent with regional planning strategies that address energy conservation. As discussed above and in Section IV.I, Land Use, of this Draft EIR, SCAG's 2020–2045 RTP/SCS focuses on increasing mobility options to achieve a more sustainable growth pattern. It charts a path toward a more mobile, sustainable, and prosperous region by making connections between transportation networks, between planning strategies and between the people whose collaboration can improve the quality of life for Southern Californians. As part of the approach, the 2020–2045 RTP/SCS focuses on reducing fossil fuel use by decreasing VMT, reducing building energy use, and increasing use of renewable sources. The Project would reduce VMT as compared to the existing condition and would be consistent with the 2020–2045 RTP/SCS goals and policies.

In addition, the Project would comply with State energy efficiency requirements and would use electricity from LADWP, which has a current renewable energy mix of 34 percent. All of these features would serve to reduce the consumption of electricity, natural gas, and transportation fuel. Based on the above, the Project would be consistent with adopted energy conservation plans.

As demonstrated in the analysis above, construction and operation of the Project would not conflict with adopted energy conservation plans.

(2) Mitigation Measures

Impacts relating to conflicting with or obstructing a state or local plan for renewable energy or energy efficiency would be less than significant. Therefore, no mitigation measures are required.

(3) Level of Significance after Mitigation

Impacts related to the conflict with a state or local plan for renewable energy or energy efficiency is determined to be less than significant without mitigation. Therefore, no mitigation measures were required or included, and the impact level remains less than significant.

e) Cumulative Impacts

(1) Impact Analysis

Cumulative impacts occur when impacts that are significant or less than significant from a proposed Project's impacts combined with similar impacts from other past, present, or reasonably foreseeable projects in a similar geographic area. Based on the information presented in Chapter II, Environmental Setting, of this Draft EIR, there are 85 related projects located within the vicinity of the Project Site. The geographic context for the cumulative analysis of electricity is LADWP's service area, and the geographic context for the cumulative analysis of natural gas is the SoCalGas service area. While the geographic context for transportation-related energy use is more difficult to define, it is meaningful to consider the Project in the context of County-wide consumption. Growth within the County of Los Angeles is anticipated to increase the demand for electricity, natural gas, and transportation energy, as well as the need for energy infrastructure, such as new or expanded energy facilities.

(a) 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. The Project's estimated electricity demand would be a net increase of 1,533,820 kWh per year. Thus, although Project development would result in the use of renewable and nonrenewable electricity resources during construction and operation, which could limit future availability of nonrenewable energy sources, the use of such resources would be on a relatively small scale, would be reduced by measures making the Project more energy-efficient, and would be consistent with growth expectations for

LADWP's service area. Furthermore, as with the Project, during construction and operation, other future development projects would be expected to incorporate energy conservation features, comply with applicable regulations including the CALGreen Code and State energy standards under Title 24, and incorporate mitigation measures, as necessary. As such, the Project's contribution to cumulative impacts related to wasteful, inefficient and unnecessary use of electricity would not be cumulatively considerable and, thus, would be less than significant.

(b) Natural Gas

Buildout of the Project, related projects, and additional forecasted growth in the SoCalGas service area would cumulatively increase the demand for natural gas supplies and infrastructure capacity. Buildout of the Project is projected to generate an on-site net decrease of 58,640 therms per year (or approximately 5,864,000 kBTU per year) of natural gas.

Although Project development would result in the use of natural gas resources, which could limit their future availability, the use of such resources would be on a relatively small scale, would be reduced by measures rendering the Project more energy-efficient, and would be consistent with regional and local growth expectations for the SoCalGas service area, all as previously discussed. Furthermore, future development projects would be expected to incorporate energy conservation features, comply with applicable regulations, including the CALGreen Code and State energy standards under Title 24, and incorporate mitigation measures, as necessary. As such, the Project's contribution to cumulative impacts related to wasteful, inefficient and unnecessary use of natural gas would not be cumulatively considerable and thus, would be less than significant.

(c) Transportation Energy

Buildout of the Project, related projects, and additional forecasted growth would cumulatively increase the demand for transportation-related fuel in the state and region. As described above, at buildout, the Project would consume a net total of 650,535 gallons of gasoline and 41,390 gallons of diesel per year, or a total of 691,925 gallons of petroleum-based fuels per year. For comparison purposes, the transportation-related fuel usage for the Project would represent approximately 0.02 percent of the 2019 annual on-road gasoline (4.07 billion gallons) and approximately 0.11 percent of the annual on-road diesel-related energy consumption (634 million gallons) in Los Angeles County, as shown in Appendix N-2.

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

from the transportation sector, and reduce VMT, which would reduce reliance on petroleum fuels (e.g., AB 1493 Pavley Regulations and Advanced Clean Cars Program). According to the CEC, gasoline consumption has declined by 6 percent since 2008, and the CEC predicts that the demand for gasoline will continue to decline over the next 10 years and that the use of alternative fuels will increase, such as natural gas, biofuels, and electricity.[43] As with the Project, other future development projects would be expected to reduce VMT by encouraging the use of alternative modes of transportation and other design features that promote VMT reductions. Thus, it is anticipated that future energy users would become more efficient and less wasteful over time.

Furthermore, as described above, the Project would be consistent with the energy efficiency policies emphasized by the 2020–2045 RTP/SCS. Since the Project is consistent with the 2020–2045 RTP/SCS, its contribution to cumulative impacts related to wasteful, inefficient, and unnecessary use of transportation fuel would not be cumulatively considerable and, thus, would be less than significant.

(d) Conclusion

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

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

(a) 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 2030 (the Project buildout year) will be 24,738 GWh of electricity.[44] Based on the Project's estimated electrical consumption of 1,533,820 kWh/year, the Project would account for approximately 0.006 percent of LADWP's total projected sales during 2030 for the Project's 2030 buildout year. Thus, although Project development would result in the use of renewable and non-renewable electricity resources during construction and operation,

[43] CEC, 2017-2018 Investment Plan Update for the Alternative and Renewable Fuel and Vehicle Technology Program, October 2016.

[44] LADWP, 2017 Power Strategic Long-Term Resource Plan, page 134, Table 3-1, December 2017.

which could limit future availability, the use of such resources would be on a relatively small scale, would be reduced by measures making the Project more energy-efficient, and would be consistent with growth expectations for LADWP's service area. Electricity infrastructure is typically expanded in response to increasing demand, and system expansion and improvements by LADWP are ongoing. Development projects within the LADWP service area would also be anticipated to incorporate site-specific infrastructure improvements, as necessary. Each of the related projects would be reviewed by LADWP to identify necessary power facilities and service connections to meet the needs of their respective projects. Project applicants would be required to provide for the needs of their individual projects, thereby contributing to the electrical infrastructure in the Project area. As such, the impact of the proposed Project in combination with related projects with respect to electricity infrastructure would not be cumulatively considerable and, thus, impacts would be less than significant.

(b) Natural Gas

Buildout of the Project, related projects, and additional forecasted growth in the Southern California Gas Company (SoCalGas) service area would cumulatively increase the demand for natural gas supplies and infrastructure capacity. Based on the 2018 California Gas Report, the CEC estimates natural gas consumption within SoCalGas' planning area will be approximately 2,310 million cubic feet per day in 2030.[45] Natural gas infrastructure is typically expanded in response to increasing demand and system expansion and improvements by SoCalGas occur as needed. It is expected that SoCal Gas would continue to expand delivery capacity, if necessary, to meet demand increases within its service area. Development projects within its service area, including the Project and related projects also served by the existing SoCalGas infrastructure, would also be anticipated to incorporate site-specific infrastructure improvements, as appropriate. However, the Project would result in a net decrease in natural gas consumption when compared to the existing condition as shown as in Table IV.P-8. As such, the impact of the proposed Project in combination with related projects with respect to natural gas infrastructure would not be cumulatively considerable and, thus, impacts would be less than significant.

(c) Transportation Energy

Buildout of the Project, related projects, and additional forecasted growth would cumulatively increase the demand for transportation-related fuel in the state and region. The Project design would reduce the VMT throughout the region and encourage use of alternative modes of transportation. The Project would be consistent with regional planning strategies that address energy conservation. As discussed above and in Section IV.I, Land Use, of this Draft EIR, SCAG's 2020–2045 RTP/SCS focuses on creating

[45] California Gas and Electric Utilities, 2018 California Gas Report, p. 97, accessed October 2018.

livable communities with an emphasis on sustainability and integrated planning, and identifies mobility, economy, and sustainability as the three principles most critical to the future of the region. As part of the approach, the 2020–2045 RTP/SCS focuses on reducing fossil fuel use by decreasing VMT, reducing building energy use, and increasing use of renewable sources. The Project would be consistent with the 2020–2045 RTP/SCS goals and policies.

Furthermore, as described above, the Project would be consistent with the energy efficiency policies emphasized by the 2020–2045 RTP/SCS. Since the Project is consistent with the 2020–2045 RTP/SCS, its contribution to cumulative impacts related to a conflict with a state or local plan for renewable energy or energy efficiency would not be cumulatively considerable and, thus, would be less than significant.

(d) Conclusion

Based on the analysis provided above, the Project's contribution to cumulative impacts related to energy consumption (i.e., electricity, natural gas, transportation energy) would not result in a cumulatively considerable effect related to a conflict with a state or local plan for renewable energy or energy efficiency. **As such, the Project's impacts would not be cumulatively considerable; therefore, cumulative energy infrastructure impacts under Threshold (b) would be less than significant.**

(2) Mitigation Measures

Cumulative impacts related to energy consumption are less than significant, and as such, no mitigation measures are required.

(3) Level of Significance after Mitigation

Cumulative impacts related to energy were determined to be less than significant without mitigation. Therefore, no mitigation measures were required or included.

This page intentionally left blank