

3.14 ENERGY

This section was prepared pursuant to the State CEQA Guidelines Section 15126 and Appendix F of the State CEQA Guidelines, which require that EIRs include a discussion of the potential energy impacts of projects. The analysis considers whether the project would result in inefficient, wasteful, and unnecessary consumption of energy. Energy related to the project would include energy directly consumed for residential and nonresidential land uses. Transportation-related energy consumption would include the use of fuels and electricity to power cars, trucks, and public transportation. Energy would also be consumed by equipment and vehicles used during project construction and routine maintenance activities.

No comment letters regarding energy were received in response to the notice of preparation (see Appendix A).

3.14.1 Regulatory Setting

Energy conservation is embodied in many federal, state, and local statutes and policies. At the federal level, energy standards apply to numerous products (e.g., the US Environmental Protection Agency's [EPA] EnergyStar™ program) and transportation (e.g., fuel efficiency standards). At the state level, Title 24 of the California Code of Regulations (CCR) sets forth energy standards for buildings. Further, the state provides rebates/tax credits for installation of renewable energy systems and offers the Flex Your Power program that promotes conservation in multiple areas. At the local level, individual cities and counties establish policies in their general plans and climate action plans (CAPs) related to the energy efficiency of new development and land use planning and to the use of renewable energy sources.

FEDERAL

Energy Policy and Conservation Act, and CAFE Standards

The Energy Policy and Conservation Act of 1975 established nationwide fuel economy standards to conserve oil. Pursuant to this Act, the National Highway Traffic and Safety Administration (NHTSA), part of the US Department of Transportation (DOT), is responsible for revising existing fuel economy standards and establishing new vehicle economy standards.

The Corporate Average Fuel Economy (CAFE) program was established to determine vehicle manufacturer compliance with the government's fuel economy standards. Compliance with the CAFE standards is determined based on each manufacturer's average fuel economy for the portion of their vehicles produced for sale in the country. NHTSA and EPA set the CAFE standards to improve the average fuel economy and reduce fossil fuel consumption and associated greenhouse gas (GHG) emissions generated by cars and light-duty trucks. The most recent update was in 2024, and the CAFE standards were finalized for model years (MYs) 2027 through 2031. The final rule establishes standards that require an industry-wide fleet average of approximately 49 miles per gallon (mpg) for passenger cars and light trucks. The final rule establishes standards that would require an industry-wide fleet average of approximately 50.4 mpg in MY 2031 for passenger cars and light trucks and an industry fleet-wide average for heavy-duty pickup trucks and vans (HDPUVs) of roughly 2.851 gallons per 100 miles in MY 2035. The final CAFE standards increase at a rate of 2 percent per year for passenger cars in MYs 2027–2031 and 2 percent per year for light trucks in MYs 2029–2031. The final HDPUV fuel efficiency standards increase at a rate of 10 percent per year in MYs 2030–2032 and 8 percent per year in MYs 2033–2035 (NHTSA 2024).

Energy Policy Act of 1992 and 2005

The Energy Policy Act of 1992 (EPAct) was passed to reduce the country's dependence on foreign petroleum and improve air quality. EPAct includes several parts intended to build an inventory of alternative fuel vehicles (AFVs) in large, centrally fueled fleets in metropolitan areas. EPAct requires certain federal, state, and local government and private fleets to purchase a percentage of light-duty AFVs capable of running on alternative fuels each year. In addition, financial incentives are also included in EPAct. Federal tax deductions are allowed for businesses and

individuals to cover the incremental cost of AFVs. States are also required by the act to consider a variety of incentive programs to help promote AFVs. The Energy Policy Act of 2005 provides renewed and expanded tax credits for electricity generated by qualified energy sources, such as landfill gas; provides bond financing, tax incentives, grants, and loan guarantees for clean renewable energy and rural community electrification; and establishes a federal purchase requirement for renewable energy.

Medium-and Heavy-Duty Vehicle Program

EPA and NHTSA set fuel efficiency and GHG standards for medium- and heavy-duty trucks. In 2011, EPA and NHTSA finalized a joint rule that established a national program to reduce GHG emissions and improve fuel economy for new medium- and heavy-duty engines and vehicles. This rule—called the Phase 1 standards—requires fuel efficiency standards for engines in model years (MYs) 2014 through 2018 (40 Code of Federal Regulations [CFR] Parts 85, 86, 1036, 1037, 1065, 1066, and 1068). In 2016, EPA and NHTSA adopted the Phase 2 standards, which require fuel efficiency standards for engines in MYs 2018 through 2027 (40 CFR Parts 9, 22, 85, 86, 600, 1033, 1036, 1037, 1039, 1042, 1043, 1065, 1066, and 1068) (EPA 2016).

Construction Equipment Emission Standards

The CFR established tiered emissions standards for construction equipment (i.e., nonroad diesel engines) to phase in cleaner-burning equipment that will reduce nitrogen oxides (NO_x) and particulate matter emissions from exhaust. After 2014, all construction equipment manufactured in the United States is required to meet the highest tier of emission standards, Tier 4. EPA oversees implementation of these regulations (CFR Chapter 40, Parts 1039, 1065, and 1068).

Public Law No. 119-15

On June 12, 2025, Public Law 119-15, enacting House Joint Resolution 87, was signed into law. The law utilized the Congressional Review Act to nullify EPA's rule that had granted California a waiver to enforce stricter emissions standards for heavy-duty vehicles under the Clean Air Act (CAA). The disapproved rule included programs such as the Advanced Clean Trucks regulation and zero-emission requirements for airport shuttles. Passed under the Congressional Review Act, the law prevents EPA from implementing or reissuing the same or similar rules without new congressional authorization. This effectively blocks California, and other states that follow its standards, from enforcing these specific vehicle emission and warranty regulations.

Public Law No. 119-16

In early May 2025, the US House of Representatives passed House Joint Resolution 88 under the Congressional Review Act, aiming to void EPA's December 2024 waiver under the CAA that allowed California to implement the Advanced Clean Cars (ACC II) regulation. ACC II includes a zero-emission vehicle (ZEV) mandate targeting 100 percent new light-duty ZEV sales by 2035. In late May 2025, the Senate followed suit, approving the resolution; the first ever occurrence that waivers under the CAA have been revoked from a Congressional Review Act. With both chambers' approval, the resolution was signed by the President on June 12, 2025, to formally rescind the State's ability to enforce the ACC II regulation. The implications of this federal resolution on the State's capability to enforce its independent fuel economy standards are uncertain at this time, as the California Attorney General filed a lawsuit against the federal government on June 12, 2025, to challenge House Joint Resolution 88. Whether this action is successful is unknown, as is the possibility that a federal judge will issue a stay to halt the implementation of the ACC II regulation during the legal process. Notably, the mobile source emissions calculations and estimates disclosed in this analysis do not account for this regulatory update as emissions factors have not been updated by the California Air Resources Board (CARB) at this time.

STATE

Warren-Alquist Act

The 1975 Warren-Alquist Act established the California Energy Resources Conservation and Development Commission, now known as the California Energy Commission (CEC). The Act established state policy to reduce wasteful,

uneconomical, and unnecessary uses of energy by employing a range of measures. The California Public Utilities Commission (CPUC) regulates privately-owned utilities in the energy, rail, telecommunications, and water fields.

State of California Energy Action Plan

CEC is responsible for preparing the State Energy Plan, which identifies emerging trends related to energy supply, demand, conservation, public health and safety, and the maintenance of a healthy economy. The first Energy Action Plan (EAP) emerged in 2003 from a crisis atmosphere in California's energy markets. The state's three major energy policy agencies (CEC, CPUC, and the Consumer Power and Conservation Financing Authority [established under deregulation and now defunct]) came together to develop one high-level, coherent approach to meeting California's electricity and natural gas needs. It was the first time that energy policy agencies formally collaborated to define a common vision and set of strategies to address California's future energy needs and emphasize the importance of the impacts of energy policy on the California environment. In the October 2005 Energy Action Plan II, CEC and CPUC updated their energy policy vision by adding some important dimensions to the policy areas included in the original EAP, such as the emerging importance of climate change, transportation-related energy issues and research and development activities. CEC adopted an update to the EAP II in February 2008 that supplements the earlier EAPs and examines the state's ongoing actions in the context of global climate change.

The current plan is the 2025 Building Energy Action Plan, which was released December 19, 2025. The 2025 Energy Action Plan presents a statewide, multiagency perspective on ways to achieve greater decarbonization of existing buildings through improved energy efficiency, electrification, and supporting strategies. The 2025 Energy Action Plan discusses 21 topics that present major issues to building decarbonization (CEC 2025)..

Assembly Bill 2076: Reducing Dependence on Petroleum

Pursuant to Assembly Bill (AB) 2076 (Chapter 936, Statutes of 2000), CEC and CARB prepared and adopted a joint agency report in 2003, *Reducing California's Petroleum Dependence*. Included in this report are recommendations to increase the use of alternative fuels to 20 percent of on-road transportation fuel use by 2020 and 30 percent by 2030, significantly increase the efficiency of motor vehicles, and reduce per capita vehicle miles traveled (VMT) (CEC 2003). Further, in response to the CEC's 2003 and 2005 *Integrated Energy Policy Reports*, Governor Davis directed CEC to take the lead in developing a long-term plan to increase alternative fuel use. A performance-based goal of AB 2076 was to reduce petroleum demand to 15 percent below 2003 demand by 2020 and maintain that level for the foreseeable future.

Integrated Energy Policy Report

Senate Bill (SB) 1389 (Chapter 568, Statutes of 2002) required the CEC to "conduct assessments and forecasts of all aspects of energy industry supply, production, transportation, delivery and distribution, demand, and prices. The Energy Commission shall use these assessments and forecasts to develop energy policies that conserve resources, protect the environment, ensure energy reliability, enhance the state's economy, and protect public health and safety" (Public Resources Code [PRC] Section 25301[a]). This work culminated in the Integrated Energy Policy Report (IEPR).

CEC adopts an IEPR every two years and an update every other year. The 2023 IEPR, the most recent IEPR, was adopted in February 2024. The 2023 IEPR summarizes California's priority energy issues, outlining strategies and recommendations to further the state's goal of ensuring reliable, affordable, and environmentally responsible energy sources. Energy topics covered in the report include progress toward statewide renewable energy targets and issues facing future renewable development; efforts to increase energy efficiency in existing and new buildings; progress by utilities in achieving energy efficiency targets and potential; improving coordination among the state's energy agencies; streamlining power plant licensing processes; results of preliminary forecasts of electricity, natural gas, and transportation fuel supply and demand; future energy infrastructure needs; the need for research and development efforts to statewide energy policies; and issues facing California's nuclear power plants (CEC 2024a).

Senate Bill 1078: California Renewables Portfolio Standard Program

SB 1078 (Sher 2002) established California's Renewables Portfolio Standard (RPS) for electricity supply. The program sets continuously escalating renewable energy procurement requirements for the state's load-serving entities.

Generation must be procured from RPS-certified facilities. SB 2 (1X) of 2011 obligated all California electricity providers to obtain at least 33 percent of their energy from renewable resources by 2020. The CPUC and CEC are jointly responsible for implementing the program. All electricity retail sellers had an interim target between compliance periods to serve at least 38.5 percent of their load with RPS-eligible resources by December 31, 2022. In general, retail sellers either met or exceeded the interim 38.5 percent target and are on track to achieve their compliance requirements. In 2018, SB 100 (Public Utilities Code Sections 399.11, 399.15, 399.30 and, Section 454.53) was signed into law, which again increases the RPS to 60 percent by 2030 and requires all the state's electricity to come from carbon-free resources by 2045.

SB 100 established a new RPS target of 50 percent by 2026, increases the RPS target in 2030 from 50 to 60 percent, and establishes a goal of 100 percent zero-carbon energy sources by 2045. SB 1020 superseded the goals of SB 100 by requiring that 90 percent of all retail sales of electricity to California end-use customers are procured from renewable energy and zero-carbon resources by December 31, 2035. The requirement increases to 95 percent by December 31, 2040, and to 100 percent by December 31, 2045. Under SB 1020, state agency facilities must use 100 percent renewable and zero-carbon energy resources by December 31, 2035.

Advanced Clean Fleets

CARB's 2022 Advanced Clean Fleets regulation was developed to reduce diesel particulate matter through the transition of medium- and heavy-duty trucks to become fully electric by 2045. In January 2025, California withdrew its request for a waiver and authorization for the addition of the Advanced Clean Fleets regulation to its emissions control program in anticipation of federal efforts to nullify or block its CAA waivers (CARB 2025a). CARB is not enforcing the existing portions of the Advanced Clean Fleets regulation that require a federal waiver or authorization, such as the portions of the Advanced Clean Fleet regulation that apply to high-priority and drayage fleets. However, not all elements of the Advanced Clean Fleets regulation require a federal waiver or authorization (CARB 2025b). State and local government fleets will still be required to be fully electric by 2045.

Climate Change Scoping Plan

The California legislature enacted AB 1279 in 2022, which establishes the policy of the state to achieve net zero emissions as soon as possible but no later than 2045; to maintain net negative GHG emissions thereafter; and to ensure that by no later than 2045, statewide anthropogenic GHG emissions are reduced by at least 85 percent below 1990 levels. CARB released the final *2022 Scoping Plan for Achieving Carbon Neutrality* (2022 Scoping Plan) on November 16, 2022, as directed by AB 1279 (CARB 2022). The 2022 Scoping Plan traces the pathway for the state to achieve the goals set forth in AB 1279 and includes several regulations, plans, and policies directed to reduce energy consumption, improve energy efficiency, and increase renewable energy resources within the state. CARB adopted the 2022 Scoping Plan on December 16, 2022.

California Energy Efficiency Action Plan

The *2021 California Building Decarbonization Assessment* is the initial report addressing the mandates codified in AB 3232 (Friedman, Chapter 373, Statutes of 2018). The report analyzes scenarios to reduce GHG emissions by at least 40 percent by 2030 and identifies several strategies that will lead to significant emission reductions related to electricity and natural gas use in buildings, as well as from refrigerants. The strategies include electrification, electricity generation decarbonization, energy efficiency, refrigerant leakage reduction, distributed energy resources, decarbonizing the gas system, and demand flexibility. The assessment shows that California can achieve significantly more than a 40 percent reduction by 2030 through these strategies.

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

California's energy consumption of new residential and nonresidential buildings is regulated by CCR Title 24, Part 6, Building Energy Efficiency Standards (California Energy Code). CEC updates the California Energy Code every three years with more stringent design requirements for reduced energy consumption, resulting in fewer GHG emissions. The 2022 California Energy Code went into effect on January 1, 2023. The 2022 California Energy Code advances the on-site energy generation progress started in the 2019 California Energy Code by encouraging electric heat pump technology and use, establishing electric-ready requirements when natural gas is installed, expanding solar

photovoltaic (PV) system and battery storage standards, and strengthening ventilation standards to improve indoor air quality. CEC estimates that the 2022 California Energy Code will save consumers \$1.5 billion and reduce GHGs by 10 million metric tons of carbon dioxide-equivalent over the next 30 years (CEC 2021).

The 2025 Building Energy Efficiency Standards (2025 California Energy Code) were adopted on September 11, 2024, and will go into effect for commercial uses on January 1, 2026. The 2025 California Energy Code will not go into effect for residential uses until January 1, 2031. This was affected following the signing of AB 130 and AB 131 by the Governor on June 30, 2025, as part of the effort to address housing needs in the state. Regarding commercial buildings, the 2025 California Energy Code puts particular emphasis on encouraging efficient electric heat pump technology for space and water heating in newly constructed select nonresidential building types, replacing end-of-life rooftop heating, ventilation, and air-conditioning units of a specific size with high efficiency systems, establishing electric-ready requirements for commercial kitchens, updating solar and storage standards for buildings to make clean energy available for onsite use while minimizing exports to the electrical grid.

California Green Building Standards (Title 24, Part 11)

The California Green Building Standards Code, also known as the CALGreen Code, is a portion of the California Building Code developed by CEC that consists of both voluntary and mandatory requirements related to green building standards for statewide residential and non-residential construction. The voluntary provisions of the CALGreen Code often guide the adoption of local reach codes by incorporated cities and unincorporated counties. The current version is the 2022 CALGreen Code, which took effect on January 1, 2023. Compared to the 2019 CALGreen Code, the 2022 CALGreen Code strengthened sections pertaining to electric vehicle (EV) and bicycle parking, water efficiency and conservation, and material conservation and resource efficiency, among other sections of the CALGreen Code. The CALGreen Code sets design requirements equivalent to or more stringent than those of the California Energy Code for energy efficiency, water efficiency, waste diversion, and indoor air quality. These codes are adopted by local agencies that enforce building codes and are used as guidelines by state agencies for meeting the requirements of EO B-18-12.

The 2025 CALGreen Code was adopted on September 11, 2024, and goes into effect for commercial uses on January 1, 2026. Similar to the discussion of the 2025 California Energy Code above, the 2025 CALGreen Code will not go into effect for residential uses until January 1, 2031. This was affected following the signing of AB 130 and AB 131 by the Governor on June 30, 2025, as part of the effort to address housing needs in the state. Relative to the 2022 CALGreen Code, the 2025 version includes increased requirements for EV charging infrastructure (i.e., a higher percentage of parking spaces that must be equipped with EV chargers and more stringent requirements for the types of chargers that must be installed) in both residential and non-residential buildings. The 2025 CALGreen Code also includes required analysis of Embodied Carbon in Building Materials, which was not required under the 2022 CALGreen Code. Lastly, the 2025 CALGreen Code includes updates to energy efficiency standards aimed at further reducing energy consumption in buildings and promoting the use of renewable energy sources.

LOCAL

City of Roseville General Plan 2035

The City of Roseville General Plan 2035 contains several policies applicable to the project that address energy (City of Roseville 2020). Key provisions from the Air Quality and Climate Change Element are summarized below.

Air Quality and Climate Change Element Policies

- ▶ **Policy AQ1.11** Promote local purchase and use of electric vehicles through incentives and strategic expansion of charging infrastructure.
- ▶ **Policy AQ1.17** Conserve energy and reduce air pollutant emissions by encouraging energy efficient building designs and transportation systems and promoting energy efficiency retrofits of existing structures.

- ▶ **Policy AQ1.18** Promote building and transportation energy efficiency in new residential and commercial development by encouraging and incentivizing implementation measures early in the design and development process.
- ▶ **Policy AQ1.19** Encourage energy efficiency by identifying potential cost savings, resource, and health benefits.

General Plan Implementation Measures

Appendix A of the General Plan identifies the General Plan's implementation measures, which are proactive activities designed to implement General Plan policies. The following may apply to the project:

Development Review Process

Project review should address energy efficient building and site designs, as well as the proper storage, use, and disposal of hazardous materials.

Air Quality and Climate Change Mitigation Strategies - Land Use (Ongoing)

Encourage development to be located and designed to minimize greenhouse gas and air pollutant emissions and avoid exposure to substantial pollutant concentrations by doing the following:

- ▶ Provide for mixed-use and transit-supportive development that reduces the length and frequency of vehicle trips or reduces the need for vehicle trips by providing practical pedestrian, bicycle, and transit options.

City of Roseville Communitywide Sustainability Action Plan

The Roseville Communitywide Sustainability Action Plan (SAP) sets forth a comprehensive strategy to reduce GHG emissions and improve energy efficiency, as well as to promote economic growth based on clean technology and sustainable practices (City of Roseville 2010). While the 2035 General Plan includes goals and policies that guide the City's approach to addressing sustainability and climate change, the SAP serves as a more detailed strategy to implement the City's sustainability and climate change policies. The following are some of the energy measures suggested by the SAP that are relevant to the project.

Measure E-1.4

- ▶ Qualifying new commercial construction should strive to achieve ENERGY STAR performance criteria. This denotes that the building's estimated energy use is intended to be in the top 25% compared to similar buildings throughout the nation. Once the building is built and operating for at least one year, it may qualify to receive an ENERGY STAR plaque.
- ▶ For new commercial construction projects not qualifying for ENERGY STAR, building designs should strive for a 15% reduction in the overall energy budget over California Title 24 performance standards.

3.14.2 Environmental Setting

PHYSICAL SETTING

Energy Types and Sources

California relies on a regional power system composed of a diverse mix of natural gas, renewable, hydroelectric, and nuclear generation resources. One-third of energy commodities consumed in California are natural gas. In 2024, renewable resources, including hydroelectric power and small-scale solar power, supplied 57 percent of California's in-state electricity generation; natural gas fueled another 35 percent; and nuclear power provided almost all the rest (EIA 2025).

Alternative Fuels

A variety of alternative fuels are used to reduce demand for petroleum-based fuel. The use of these fuels is encouraged through various statewide regulations and plans (e.g., Low Carbon Fuel Standard, AB 32 Scoping Plan).

Conventional gasoline and diesel may be replaced (depending on the capability of the vehicle) with many transportation fuels, including biodiesel/renewable diesel, electricity, ethanol, and hydrogen.

California has a growing number of alternative fuel vehicles through the joint efforts of CEC, CARB, local air districts, federal government, transit agencies, utilities, and other public and private entities. As of July 2025, California contained nearly 70,490 stations with alternative fuels (AFDC 2025).

Commercial and Residential Energy Use

Commercial buildings represent just under one-fifth of US energy consumption, with office space, retail space, and educational facilities representing about half of commercial sector energy consumption. The commercial sector accounted for 8 percent of total energy in the US in 2023. In comparison, the residential sector accounted for approximately 7 percent of US energy consumption (EIA 2025).

Homes in the United States built between 2000 and 2005 used 14 percent less energy per square foot than homes built in the 1980s and 40 percent less energy per square foot than homes built before 1950. However, larger home sizes offset these efficiency improvements. Primary energy consumption in the residential sector totaled 9.5 quadrillion British thermal units (Btu) in 2020 (the latest year the US Energy Information Administration's (EIA's) Residential Energy Consumption Survey was completed) (EIA 2024). Energy consumption increased 4.4 percent from 2015 to 2020. (EIA 2024)

Energy Use for Transportation

In 2024, the transportation sector comprised the largest end-use sector of energy in the state totaling 42 percent, followed by the industrial sector totaling 22 percent, the residential sector at 17 percent, and the commercial sector at 17 percent (EIA 2025). CEC reported retail sales of 163 million gallons of gasoline and 18 million gallons of diesel in Placer County in 2023 (the most recent data available) (CEC 2024b).

Energy Use and Climate Change

Scientists and climatologists have produced evidence that the burning of fossil fuels by vehicles, power plants, industrial facilities, residences, and commercial facilities has led to an increase of the earth's temperature. For an analysis of greenhouse gas production and the project's impacts on climate change, refer to Section 3.4, "Greenhouse Gas Emissions."

Electrical and Natural Gas Infrastructure

Roseville Electric provides electrical service to customers within the City limits. The City's utility obtains power from a variety of sources. In 2023, Roseville Electric consisted of 29 percent renewable energy, which consisted of solar, wind, hydroelectric, geothermal, and biomass (Roseville Electric 2023). The project includes the construction of an electrical substation to provide power to the project. In addition, two 60-kilovolt (kV) overhead power lines would need to be extended along the south side of Blue Oaks Boulevards, starting at the southeast corner of Westbrook Boulevard and through the project site on the commercial side to the substation. The Pacific Gas and Electric Company (PG&E) is the natural gas provider for the city. PG&E underground transmission pipelines are located throughout City rights-of-way to serve existing development.

3.14.3 Impacts and Mitigation Measures

METHODOLOGY

Appendix F of the State CEQA Guidelines requires consideration of the energy implications of a project. CEQA requires mitigation measures to reduce "wasteful, inefficient and unnecessary" energy usage (PRC Section 21100, subdivision [b][3]). Neither the law nor the State CEQA Guidelines establish criteria that define wasteful, inefficient, or unnecessary use. Therefore, impacts related to energy are addressed qualitatively.

Levels of construction- and operation-related energy consumption by the project were estimated and measured in megawatt-hours of electricity, kilo-British thermal units (kBTU) of natural gas, gallons of gasoline, and gallons of diesel fuel. Energy consumption estimates for construction and operational activities were calculated using the proposed phasing of the project and proposed land use types and the California Emissions Estimator Model (CalEEMod) version 2022.1.1.30 computer program; fuel consumption rates were obtained from CARB's OFFROAD and Emission FACTors (EMFAC) model for Placer County and CARB's emission factors for the non-road tier 4 and standard diesel generators.

In compliance with PCAPCD Rule 225, Wood Burning Appliances, residential land uses were modeled without fireplaces and wood burning stoves. Additionally, residential land uses were modeled without natural gas. Although the project would use natural gas, natural gas would only be used to meet the operational needs of the non-residential land uses.

Two types of diesel generators would be included in the project: 15 3- megawatt Tier 4 generators with 4,000 horsepower (HP) each to provide power to the future potential data center and 12 emergency diesel generators for the commercial and retail buildings with 500 HP. Generator emissions were calculated using CalEEMod default emission factors (i.e., statewide average emissions factors and Tier) for 500 HP generators and CARB emission factors for Tier 4 off-road diesel generators (CARB 2020). Where project-specific information was not known, CalEEMod default values based on the project's location were used.

As described in Chapter 2, "Project Description," the actual tenants of the Innovation and Commercial zones are not known yet. Thus, for the purposes of this EIR analysis, higher intensity uses are assumed to evaluate the most conservative range of environmental impacts. For example, land use types were modeled based on allowable land uses from Tables 2-1 and 2-3 in Chapter 2, "Project Description." Where specific land uses were not available, the likely and conservative equivalents were used to estimate energy consumption. The innovation land uses were modeled as data centers, research and development medical facilities, and automobile repair shops; the medical offices were modeled as a medical office building; and the retail land use was modeled as a hardware store.

THRESHOLDS OF SIGNIFICANCE

Thresholds of significance are based on Appendix G of the State CEQA Guidelines. The project would cause a significant impact related to energy if it would:

- ▶ result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy, or wasteful use of energy resources, during project construction or operation; or
- ▶ conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

ISSUES NOT DISCUSSED FURTHER

All issues related to energy listed under the significance criteria above are addressed in this section.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 3.14-1: Wasteful, Inefficient, or Unnecessary Consumption of Energy, During Project Construction or Operation

Construction activities associated with the project would be temporary and would not increase long-term energy or fuel demand. Operational activities would increase the use of fuel (gasoline and diesel), electricity, and natural gas; however, the project would, at a minimum, comply with the energy efficiency requirements of applicable building codes (e.g., California Energy Code, CALGreen Code), which are updated regularly with increasingly stringent standards for energy conservation and efficiency. Although the project would use natural gas, it would only be used to meet the operational needs of an advanced manufacturer or other user and would not be utilized for heating, ventilation, and air conditioning (HVAC) systems. In addition, the project would not generate VMT above applicable City thresholds and, therefore, would not be considered inefficient from a transportation energy perspective. For these reasons, the project's use of energy would not be considered wasteful, inefficient, or unnecessary and this impact would be **less than significant**.

Construction

Energy would be required to construct, operate, and maintain construction equipment and to produce and transport construction materials associated with construction of the project. Project construction would occur in phases between 2027 and 2038, with backbone infrastructure occurring first to allow future subsequent development. An on-site electrical substation would be constructed to serve the site and off-site improvements would include a bus turnout along the southern frontage of the project site and the extension of Blue Oaks Boulevard, which would occur as needed to serve each phase of the proposed development. All project construction activities associated with full buildout were included in the total fuel estimates.

The one-time energy expenditure required to construct the physical buildings and infrastructure associated with the project would be nonrecoverable. Most energy consumption would result from operation of construction equipment and vehicle trips associated with commutes by construction workers and haul trucks supplying materials. As detailed in Section 2.5.2, "Construction Activities," for any given phase of construction, there would be a range of 75 to 125 construction workers for a given shift. For a conservative estimate, the modeling assumed that 125 construction workers would be onsite for a given shift. An estimate of fuel needed for construction activities associated with the project is provided in Table 3.14-1.

Table 3.14-1 Construction Energy Consumption

Fuel Type	Gallons
Diesel	438,433
Gasoline	78,669

Source: Calculations by Ascent in 2025.

Construction associated with all years of construction and all land uses associated with the project (i.e., residential and nonresidential) would consume a total of 438,433 gallons of diesel and 78,669 gallons of gasoline, as shown in Table 3.14-1. Although construction activities would require fuel and other energy sources, these energy needs would be temporary and would not increase long-term energy or fuel demand. In addition, to maximize their profitability, construction contractors strive to complete construction projects in an efficient manner to meet project schedules and minimize cost. Thus, only the necessary amount of fuel would be consumed to complete construction of the project. Furthermore, all construction equipment would be subject to applicable regulations relating to diesel equipment (see "Construction Equipment Emission Standards" above under Section 3.8.1, "Regulatory Setting"). These regulations phase in cleaner-burning equipment that would be more energy efficient. For these reasons, construction activities associated with the project would not result in wasteful, inefficient, or unnecessary energy consumption.

Operation

The project would, at a minimum, be built to meet the California Energy Code and CALGreen requirements in place at the time of development. All project buildings would be required to comply with the California Energy Code standards for building energy efficiency in place at the time of development. Nevertheless, implementation of the project would increase electricity and natural gas consumption relative to existing conditions. The project's residential component would provide housing for 1,550 to 1,650 residents at buildout in 2038. The residential component of the project would be designed to be all-electric, exceeding current building code requirements and furthering the objective of increasing the use of renewable energy in place of fossil fuel sources. Although the innovation and commercial uses would not be all-electric, natural gas would only be used to meet the operational needs of an advanced manufacturer or other user; it would not be utilized for HVAC heating. The current California Building Code requires solar panels for new residential land uses. For non-residential uses, while the building code does not require solar, future solar panel systems would be optional and feasibility/applicability would be determined at the time of each development application based on the specific land use proposed. As detailed in Section 3.14.3, "Methodology," the project would support a mix of residential, retail, medical offices, and innovation center uses. Allowable uses were used as proxies for the project modeling, as described above in the "Methodology" discussion. A summary of the estimated building energy usage at buildout is provided in Table 3.14-2.

Table 3.14-2 Operational Building Energy Consumption (at Buildout)

Land Use/Equipment	Electricity Consumption (MWh/year)	Natural Gas Consumption (kBtu/year)	Fuel Usage (Gallons Diesel)
Low-Density Residential	2,733	0	N/A
High-Density Residential	696	0	N/A
Medical Offices	438	604,084	N/A
Retail	262	259,493	N/A
Innovation	17,451	34,293,789	N/A
Back-up Generators ¹	894	0	40,415
Total	22,474	35,157,366	40,415

¹ Back-up generators were assumed to be diesel-powered; thus, diesel fuel consumption was estimated for all onsite generators for the project.

Notes: MWh/year = megawatt-hours per year; kBtu = British thermal unit.

Source: Calculations by Ascent in 2025.

In addition, implementation of Mitigation Measure 3.5-1a would require onsite solar PV systems and battery energy storage systems (BESS) and Mitigation Measure 3.5-1c would require the use of renewable natural gas. Implementation of these measures would promote the use of renewable energy sources and the reduction of fossil fuel as well as reduce reliance on the grid by promoting onsite energy (e.g., solar, BESS facility); thus, further enhancing the project's energy efficiency.

Mobile Sources

Mobile-source energy consumption, in the form of fossil fuel, is directly linked to the anticipated VMT associated with the project. That is, the more VMT generated, the more fuel consumption would be required. As stated in Section 3.3, "Transportation," the project's net effect on VMT would be 40,649 per year. The project's average VMT per service population of 14.24 would not exceed the City VMT threshold of 23.27 VMT per service population. Annual VMT associated with the project would result in additional fuel demand of 319,513 gallons of gasoline per year and 1,313,781 gallons of diesel per year as shown in Table 3.14-3.

Table 3.14-3 Transportation Energy Consumption

Fuel Type	Gallons/Year
Diesel	279,098
Gasoline	1,313,781

Notes: gallons/year = gallons per year.

Source: Calculations by Ascent in 2025.

Implementation of Mitigation Measure 3.4-3e would require non-residential project applicants to develop and implement a mandatory commute reduction program for employees. The program would require commute trip reduction marketing, an employee ridesharing program, and implementation of end-of-trip bicycle facilities. These measures would further reduce the project's transportation-related energy consumption.

Summary

The project would increase energy consumption for temporary construction activities related to vehicle use and material transport. However, construction activities would be temporary and would not increase long-term energy or fuel demand. In addition, construction activities would only consume the necessary amount of fuel and energy to complete work in an efficient and timely manner. Once operational, the project would increase transportation and building energy demand. However, as stated above, VMT associated with the project would not exceed the City VMT threshold of 23.27 VMT per service population and, thus, would not result in excessive or unnecessary fossil fuel consumption than if project-generated VMT were above the City's threshold.

According to Appendix F of the State CEQA Guidelines, the means to achieve the goal of conserving energy include decreasing overall per capita energy consumption, decreasing reliance on fossil fuels, and increasing reliance on renewable energy sources. As described above, the project would, at a minimum, comply with the energy efficiency requirements of applicable building codes (e.g., California Energy Code, CALGreen Code). These codes are updated regularly with increasingly stringent standards for energy conservation and efficiency. The residential component would include solar panels, as required by the current California Building Code. Although the project would use natural gas, it would only be used to meet the operational needs of an advanced manufacturer or other user and would not be utilized for HVAC systems. Therefore, this use of energy would not be considered wasteful, inefficient, or unnecessary. For these reasons, the project would not conflict with the goals of conserving energy as outlined in Appendix F of the State CEQA Guidelines. This impact would be **less than significant** because the project's use of energy would not be considered wasteful, inefficient, or unnecessary. The implementation of Mitigation Measures 3.4-3e, 3.5-1a, and 3.5-1c would further enhance the project's energy efficiency by requiring the implementation of an employee commute reduction program, promoting the increased use of renewable energy sources and reduction of fossil fuels, and reducing the reliance on the grid by promoting onsite energy generation.

Mitigation Measures

No mitigation is required.

Impact 3.14-2: Conflict with or Obstruct a State or Local Plan for Renewable Energy or Energy Efficiency

The project's residential component would include solar panels, as required by the current California Building Code. The utilization of alternative energy sources (e.g., solar panels) would result in an increase in renewable energy use, which would directly support the goals and strategies in the state's Energy Efficiency Action Plan and the City of Roseville General Plan. Construction and operation of project buildings in compliance with the California Energy Code would improve energy efficiency compared to buildings built to earlier iterations of the code. In addition, although natural gas is assumed to be included in the design and operation of nonresidential portions of the project, it would only be utilized in the case of an operational need for an advanced manufacturer or other user and would not be utilized for HVAC systems. The project would align with the priorities of local plans as well as the Energy Efficiency Action Plan, the 2022 Scoping Plan, the City of Roseville General Plan, and the Roseville Communitywide SAP. Therefore, the project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency, and this impact would be **less than significant**.

The relevant plans that pertain to the efficient use of energy are the Energy Efficiency Action Plan (CEC 2019), which focuses on energy efficiency and building decarbonization; the 2022 Scoping Plan (CARB 2022); the City of Roseville General Plan (City of Roseville 2020); and City of Roseville Communitywide SAP (City of Roseville 2010), which seeks to increase on-site renewable energy generation, exceed RPS requirements, increase energy efficiency, and provide alternative transportation and use alternative fuels to meet GHG reduction goals. The project would meet the

mandatory requirements of the CALGreen Code related to energy efficiency features, electric vehicle charging infrastructure requirements, and onsite solar energy generation. This would be consistent with City General Plan Policy AQ1.17, which encourages energy efficient building designs to conserve energy and City SAP Objective E-1, which aims to minimize non-renewable energy consumption and maximize renewable energy consumption.

Appendix D of the 2022 Scoping Plan identifies priority areas to reduce VMT, electrify the transportation sector, and decarbonize buildings. CARB provides project attributes associated with each that are intended as a guide to help local jurisdictions qualitatively identify projects that are consistent with the state's climate goals. The criteria of these priorities are primarily concerned with project design features that exceed the minimum requirements of the CALGreen Code (i.e., features such as renewable energy generation systems, EV chargers, and energy efficiency standards which meet the Tier 2 requirements of CALGreen). Projects that include all these key attributes would be consistent with the State climate goals; however, projects that incorporate some, but not all these attributes can also demonstrate consistency with the State climate goals. Consistent with the priorities identified in the 2022 Scoping Plan, the project includes EV capable parking facilities, onsite renewable energy, and limited natural gas infrastructure; which are all features that reduce fossil fuel use, increase renewable energy use, and increase overall energy efficiency through efficient design. These features would also align with the Energy Efficiency Action Plan, which strives to increase energy efficiency (CEC 2019). In addition, as detailed in Section 3.3, "Transportation," the project would have an average VMT per service population of 14.2, which is below the applicable threshold of 23.3 VMT per service population. Therefore, implementation of the project would not result in excessive or unnecessary fossil fuel consumption than if project-generated VMT were above the City's threshold. For these reasons, the project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency. This impact would be **less than significant**.

Mitigation Measures

No mitigation is required.