3.5 ENERGY

This section evaluates whether implementing the Project would result in an environmental impact related to the inefficient, wasteful, or unnecessary consumption of energy and evaluates the Project's consistency with applicable plans related to energy conservation or renewable energy. The capacity of existing and proposed infrastructure to serve the Project is evaluated in Section 3.14, "Utilities and Service Systems." The primary source of information used for this analysis is Section 5.7, "Greenhouse Gas Emissions and Energy," from the *City of Elk Grove General Plan Update Draft Environmental Impact Report* (General Plan EIR) (City of Elk Grove 2018).

The Sacramento Municipal Utility District (SMUD) submitted a comment letter regarding energy in response to the notice of preparation (NOP). The letter noted that SMUD is the primary energy provider in the Project area and requests that the project descriptions for the individual development projects undertaken as part of the Project will acknowledge any impacts related to utility easements, utility line routing, electrical load requirements, energy efficiency, climate change, and relocation of SMUD infrastructure. As discussed in Chapter 1, "Introduction," of this Draft SEIR, future development under the Project would be reviewed to determine if additional environmental review is needed, based on subsequent project details.

3.5.1 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 U.S. Environmental Protection Agency's [EPA's] 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 and tax credits for installing renewable energy systems, and its Flex Your Power program promotes conservation in multiple areas. At the local level, individual cities and counties establish policies in their general plans and climate action plans related to the energy efficiency of new development and land use planning and related 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, part of the U.S. 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 U.S. EPA calculates a CAFE value for each manufacturer based on the city and highway fuel economy test results and vehicle sales. The CAFE values are a weighted harmonic average of the EPA city and highway fuel economy test results. Based on information generated under the CAFE program, DOT is authorized to assess penalties for noncompliance. Under the Energy Independence and Security Act of 2007 (described below), the CAFE standards were revised for the first time in 30 years.

On August 2, 2018, the National Highway Traffic Safety Administration and EPA proposed the Safer Affordable Fuel-Efficient Vehicles Rule (SAFE Rule) (49 Code of Federal Regulations [CFR] 523, 531, 533, 536, 537 and 40 CFR 85 and 86). The final SAFE Rule was signed on March 30, 2020.

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. The EPAct includes several parts intended to build an inventory of alternative fuel vehicles (AFVs)

in large, centrally fueled fleets in metropolitan areas. The 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 the 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.

Energy Independence and Security Act of 2007

The Energy Independence and Security Act of 2007 is designed to improve vehicle fuel economy and help reduce U.S. dependence on oil. It represents a major step forward in expanding the production of renewable fuels, reducing dependence on oil, and confronting global climate change. The Energy Independence and Security Act of 2007 increases the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard requiring fuel producers to use at least 36 billion gallons of biofuel in 2022, which represents a nearly fivefold increase over current levels. It also reduces U.S. demand for oil by setting a national fuel economy standard of 35 miles per gallon by 2020—an increase in fuel economy standards of 40 percent.

By addressing renewable fuels and the CAFE standards, the Energy Independence and Security Act of 2007 builds upon progress made by the Energy Policy Act of 2005 in setting out a comprehensive national energy strategy for the 21st century; however, in August of 2018, the NHTSA and EPA proposed the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021–2026 Passenger Cars and Light Trucks, which, if adopted, would decrease the stringency of CAFE standards. The Proposed Rule would maintain the existing standards until 2020 with a zero percent increase in fuel efficiency until 2026. Part One of the SAFE Rule, which became effective on November 26, 2019, revokes the federal Clean Air Act waiver that California obtains from EPA to set more stringent fuel economy standard. At the time of preparing this environmental document, the exact implications of the SAFE Rule on the energy efficiency of California's vehicle fleet is unknown.

STATE

Warren-Alquist Act

The 1974 Warren-Alquist Act established the California Energy Resources Conservation and Development Commission, now known as the California Energy Commission (CEC). The creation of the act occurred as a response to the State legislature's review of studies projecting an increase in statewide energy demand, which would potentially encourage the development of power plants in environmentally sensitive areas. The act introduced State policy for siting power plants to reduce potential environmental impacts and sought to reduce demand for these facilities by directing CEC to develop statewide energy conservation measures to reduce wasteful, inefficient, and unnecessary uses of energy. Conservation measures recommended establishing design standards for energy conservation in buildings, which ultimately resulted in the creation of the Title 24 Building Energy Efficiency Standards (California Energy Code). These standards are updated regularly and remain in effect today. The act additionally directed CEC to coordinate with the Governor's Office of Planning and Research, the California Natural Resources Agency, and other interested parties in ensuring that a discussion of wasteful, inefficient, and unnecessary consumption of energy is included in all CEQA-related environmental documents for projects undergoing environmental review.

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 current plan is the 2003 *Energy Action Plan* (2008 update), which calls for the state to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies a number of strategies, including assisting

public agencies and fleet operators in implementing incentive programs for zero-emission vehicles and addressing their infrastructure needs, as well as encouraging urban design that reduces vehicle miles traveled (VMT) and accommodates pedestrian and bicycle access.

The 2008 update has been supplemented by the 2019 California Energy Efficiency Action Plan, which includes three goals to drive energy efficiency: doubling energy efficiency savings by 2030, removing and reducing barriers to energy efficiency in low-income and disadvantaged communities, and reducing greenhouse gas (GHG) emissions from the buildings sector (CEC 2019).

Assembly Bill 2076: Reducing Dependence on Petroleum

Pursuant to AB 2076 (Chapter 936, Statutes of 2000), CEC and the California Air Resources Board (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 VMT (CEC and CARB 2003). Further, in response to CEC's 2003 and 2005 Integrated Energy Policy Reports (IEPRs), the governor 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 2030.

Integrated Energy Policy Report

Senate Bill (SB) 1389 (Chapter 568, Statutes of 2002) required 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" (PRC Section 25301[a]). This work culminated in preparation of the first IEPR.

CEC adopts an IEPR every 2 years and an update every other year. The 2019 IEPR, which is the most recent IEPR, was adopted January 31, 2020. The 2019 IEPR provides a summary of priority energy issues currently facing the state, 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 2020a).

Legislation Associated with Electricity Generation

The state has passed multiple pieces of legislation requiring the increasing use of renewable energy to produce electricity for consumers. California's Renewable Portfolio Standard (RPS) Program was established in 2002 (SB 1078) with the initial requirement to generate 20 percent of their electricity from renewable by 2017, 33 percent of their electricity from renewables by 2020 (SB X1-2 of 2011), 52 percent by 2027 (SB 100 of 2018), 60 percent by 2030 (also SB 100 of 2018), and 100 percent by 2045 (also SB 100 of 2018). More detail about these regulations is provided in Section 4.19, "Greenhouse Gas Emissions and Climate Change."

Senate Bill 350: Clean Energy and Pollution Reduction Act of 2015

The Clean Energy and Pollution Reduction Act of 2015 (SB 350) requires doubling of the energy efficiency savings in electricity and natural gas for retail customers through energy efficiency and conservation by December 31, 2030.

Assembly Bill 1007: State Alternative Fuels Plan

AB 1007 (Chapter 371, Statutes of 2005) required CEC to prepare a state plan to increase the use of alternative fuels in California. CEC prepared the State Alternative Fuels Plan in partnership with CARB and in consultation with other state, federal, and local agencies. The plan presents strategies and actions California must take to increase the use of

nonpetroleum fuels in a manner that minimizes the costs to California and maximizes the economic benefits of in-state production. The plan assessed various alternative fuels and developed fuel portfolios to meet California's goals to reduce petroleum consumption, increase alternative fuel use, reduce greenhouse gas (GHG) emissions, and increase in-state production of biofuels without causing a significant degradation to public health and environmental quality.

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

The energy consumption of new residential and nonresidential buildings in California is regulated by the California Energy Code. The code was established by CEC in 1978 in response to a legislative mandate to create uniform building codes to reduce California's energy consumption and provide energy-efficiency standards for residential and nonresidential buildings. CEC updates the California Energy Code every 3 years, typically including more stringent design requirements for reduced energy consumption, which results in the generation of fewer GHG emissions.

The 2019 California Energy Code was adopted by CEC on May 9, 2018, and will apply to projects constructed after January 1, 2020. CEC estimates that the combination of required energy-efficiency features and mandatory solar panels in the 2019 California Energy Code will result in new residential buildings that use 53 percent less energy than those designed to meet the 2016 California Energy Code. CEC also estimates that the 2019 California Energy Code will result in new commercial buildings that use 30 percent less energy than those designed to meet the 2016 standards, primarily through the transition to high-efficacy lighting (CEC 2018).

California Green Building Standards (Title 24, Part 11)

The California Green Building Standards, also known as CALGreen, is a reach code (i.e., optional standards that exceed the requirements of mandator codes) developed by CEC that provides green building standards for statewide residential and nonresidential construction. The current version is the 2019 CALGreen Code, which took effect on January 1, 2020. As compared to the 2016 CalGreen Code, the 2019 CalGreen Code strengthened sections pertaining to 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 used as guidelines by state agencies for meeting the requirements of Executive Order B-18-12.

Legislation Associated with Greenhouse Gas Reduction

The state has passed legislation that aims to reduce GHG emissions. The legislation often has an added benefit of reducing energy consumption. SB 32 requires a statewide GHG emission reduction of at least 40 percent below 1990 levels by no later than December 31, 2030. Executive Order S-3-05 sets a long-term target of reducing statewide GHG emissions by 80 percent below 1990 levels by 2050.

SB 375 aligns regional transportation planning efforts, regional GHG emission reduction targets, and land use and housing allocation. The Advanced Clean Cars program, approved by CARB, combines the control of GHG emissions and criteria air pollutants and the increase in the number of zero-emission vehicles into a single package of standards. The program's zero-emission vehicle regulation requires battery, fuel cell, and/or plug-in hybrid electric vehicles to account for up to 15 percent of California's new vehicle sales by 2025.

Implementation of the state's legislation associated with GHG reduction will have the co-benefit of reducing California's dependency on fossil fuel and making land use development and transportation systems more energy efficient.

More details about legislation associated with GHG reduction are provided in the regulatory setting of Section 3.7, "Greenhouse Gas Emissions and Climate Change."

LOCAL

City of Elk Grove General Plan

The City of Elk Grove General Plan includes policies that promote energy conservation and reduction strategies (City of Elk Grove 2019):

- **Policy H-2-3:** Support energy-conserving programs in the production and rehabilitation of affordable housing to reduce household energy costs, improve air quality, and mitigate potential impacts of climate change in the region.
- **Policy NR-2-4**: Preserve and plant trees in appropriate densities and locations to maximize energy conservation and air quality benefits.
- **Policy NR-4-1:** Require all new development projects which have the potential to result in substantial air quality impacts to incorporate design, and/or operational features that result in a reduction in emissions equal to 15 percent compared to an "unmitigated baseline project." An unmitigated baseline project is a development project which is built and/or operated without the implementation of trip reduction, energy conservation, or similar features, including any such features which may be required by the Zoning Code or other applicable codes.
- **Policy NR-6-1:** Promote energy efficiency and conservation strategies to help residents and businesses save money and conserve valuable resources.
- **Policy NR-6-3:** Promote innovation in energy efficiency.
- **Policy NR-6-5:** Promote energy conservation measures in new development to reduce on-site emissions and seek to reduce the energy impacts from new residential and commercial projects through investigation and implementation of energy efficiency measures during all phases of design and development.
- **Policy NR-6-6:** Encourage renewable energy options that are affordable and benefit all community members.
- **Policy NR-6-7:** Encourage the use of solar energy systems in homes, commercial businesses, and City facilities as a form of renewable energy.

City of Elk Grove Climate Action Plan

The *City of Elk Grove Climate Action Plan: 2019 Update* (CAP), adopted in February 2019 and amended in December 2019 by the Elk Grove City Council, was incorporated into the most recent update to the General Plan (discussed above). The CAP includes GHG emission reduction targets, strategies, and implementation measures developed to help the City reach these targets. Reduction strategies address GHG emissions associated with transportation and land use, energy, water, waste management and recycling, agriculture, and open space. The following City goals are related to transportation and energy use (City of Elk Grove 2019):

- Encourage or Require Green Building Practices in New Construction,
- Phase in Zero Net Energy Standards in New Construction,
- Solar Photovoltaics in New and Existing Residential and Commercial Development,
- Limit Vehicle Miles Traveled,
- Require Tier 4 Final Construction Equipment by 2030, and
- Require EV [electric vehicle] Charging Stations for All New Development.

City of Elk Grove Municipal Code

Municipal Code Chapter 16.07 provides permitting guidance for EV charging stations. Municipal Code Sections 16.07.200 through 16.07.500 summarize the streamlined permitting process for installation of EV charging stations including provisions pertaining to the completion of a technical review checklist that ensures that installation of an EV charging station would not result in any adverse environmental or health effects. As stated in Municipal Code Section 16.07.400, "the intent of this chapter [is] to encourage the installation of electric vehicle charging stations by removing

obstacles to permitting for charging stations so long as the action does not supersede the Building Official's authority to address higher priority, life-safety situations."

Municipal Code Section 23.58.120 requires one "EV ready" parking space for all new one family and two family dwelling units. This section also requires that 2.5 percent of parking for multifamily projects provide EV charging and an additional 2.5 percent of parking be ready for future EV charging expansion.

3.5.2 Environmental Setting

ELECTRICITY AND NATURAL GAS USE

Electric services are provided to the City from Sacramento Municipal Utility District (SMUD). Natural gas is supplied to the City from Pacific Gas and Electric (PG&E). See Section 3.14, "Utilities and Service Systems," for more detailed information on electrical and natural gas infrastructure specifically serving the Project area.

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 is natural gas. In 2019, approximately 34 percent of natural gas consumed in the state was used to generate electricity. Large hydroelectric powered approximately 15 percent of electricity and renewable energy from solar, wind, small hydroelectric, geothermal, and biomass combustion totaled 32 percent (CEC 2020b). In 2019, SMUD provided its customers with 28 percent eligible renewable energy (i.e., biomass combustion, geothermal, small scale hydroelectric, solar, and wind) and 44 percent and 27 percent from large scale hydroelectric and natural gas, respectively (SMUD 2020). The contribution of in- and out-of-state power plants depends on the precipitation that occurred in the previous year, the corresponding amount of hydroelectric power that is available, and other factors. SMUD is the primary electricity and natural gas service provider in Sacramento County.

The proportion of SMUD-delivered electricity generated from eligible renewable energy sources is anticipated to increase over the next three decades to comply with the SB 100 goals described in Section 3.5.1.

ENERGY USE FOR TRANSPORTATION

In 2018, the transportation sector comprised the largest end-use sector of energy in the state totaling 39.1 percent, followed by the industrial sector totaling 23.5 percent, the commercial sectors at 19.2 percent, and the residential sector of 18.3 percent (EIA 2020). On-road vehicles use about 90 percent of the petroleum consumed in California. CEC reported retail sales of 600 million and 41 million gallons of gasoline and diesel, respectively, in Sacramento County in 2019 (the most recent data available) (CEC 2020c). The California Department of Transportation (Caltrans) projects that 996 million gallons of gasoline and diesel will be consumed in Sacramento County in 2030 (Caltrans 2008).

ENERGY USE AND CLIMATE CHANGE

Scientists and climatologists have produced substantial 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 (IPCC 2014 and OPR, CEC, and CNRA 2018). For an analysis of greenhouse gas production and the Project's contribution to climate change, see Section 3.7, "Greenhouse Gas Emissions and Climate Change."

3.5.3 Impacts and Mitigation Measures

METHODOLOGY

The following impact analysis is based primarily on review of the information and analysis presented in the General Plan EIR then compared to Project-related modeling performed for this analysis.

Energy consumed by the Project during construction would include gasoline and diesel fuel, measured in gallons. Gasoline, and some diesel fuel, would be consumed from worker commute trips to and from the Project area. Diesel would primarily be consumed to operate heavy-duty equipment such as dozers, tractors, and pavers and to support haul truck trips. Emissions factors from CARB's EMissonFactor 2017 program were used to calculate the average fuel economy for vehicles operating within Sacramento County by year (2021–2029).

Energy consumed during operation would include electricity and direct natural gas consumption, measured in megawatt-hours per year. Natural gas would also be indirectly combusted from electricity demand.

Building-related energy consumption estimates for maximum extent housing sites proposed under the Housing Element Update that are identified in Table 2-3 of Chapter 2, "Project Description," were calculated using the California Emissions Estimator Model (CalEEMod) version 2016.3.2 computer software (CAPCOA 2017). Where Project-specific information was unknown, CalEEMod default values based on the Project area were used. CalEEMod default electricity consumption rates were adjusted to account for energy-efficiency improvements from the 2019 California Energy Code, which would result in a 53 and 30-percent reduction in energy consumption in residential and nonresidential buildings, respectively, compared with the 2016 California Energy Code included in CalEEMod (CEC 2018a). Implementation of the Safety Element Update would not result in the creation of new buildings or features that would have operational emissions. Thus, this issue is not address below.

Operational fuel use estimates were calculated using EMFAC 2017 using the estimated level of VMT associated with the Project as described in Section 3.13, "Transportation."

Refer to Appendix C for detailed assumptions and modeling results.

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 related to wasteful, inefficient, or unnecessary consumption of energy during project construction or operation; or
- conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 3.5-1: Wasteful, Inefficient, or Unnecessary Consumption of Energy during Project Construction or Operation

The General Plan EIR evaluated the energy consumption associated with the land uses proposed under the General Plan and concluded that energy consumption would not be wasteful, inefficient, or unnecessary because development would be required to comply with the most recent versions of the California Energy Code and actions under the Elk Grove CAP that include zero net energy requirements in 2020 and 2030 for residential and commercial development. Implementation of the Housing Element and Safety Element Update could result in the consumption of additional energy supplies during construction in the form of gasoline and diesel fuel consumption; however, this energy expenditure would not be considered wasteful when compared to other construction projects. Operation of housing sites under the Housing Element Update would also result in additional energy consumption but would be required to comply with the most recent version of the California Energy Code and the CAP. Implementation of the Housing Element and Safety Element Update would be required to comply with these standards and would not result in a new or substantially more severe energy impacts that was addressed in the General Plan EIR. Project impacts would be **less than significant**.

Impact 5.7.3 of the General Plan EIR evaluated whether implementation of the proposed land uses under the General Plan would result in the wasteful, inefficient, or unnecessary consumption of energy. The General Plan EIR concluded that construction-related energy expenditures would be less than significant due to the inherent short-term nature of construction. The General Plan EIR also determined that operational energy usage would be less than significant because future development would comply with applicable future versions of the California Energy Code. Also, the General Plan and CAP included policies and actions that would reduce energy consumption.

Most of the construction-related energy consumption for the housing sites under the Housing Element Update and improvements for emergency access and evacuation associated with implementation of the Safety Element Update would be associated with off-road equipment and the transport of equipment and materials using on-road haul trucks.

An estimated 1,292,200 gallons of gasoline and 2,715,000 gallons of diesel fuel may be used during construction of the housing sites proposed under the Housing Element Update (see Appendix C for a summary of construction calculations). The energy needs for construction is assumed to occur over a roughly 8-year period and are not anticipated to require additional capacity or substantially increase peak or base period demands for electricity and other forms of energy. Gasoline and diesel would also be consumed during worker commute trips. Energy would be required to transport demolition waste and excavated materials. The one-time energy expenditure required to construct the housing sites (spread over the estimated 8-year buildout period) would be nonrecoverable. There is no atypical construction-related energy demand associated with the housing sites. Nonrenewable energy would not be consumed in a wasteful, inefficient, or unnecessary manner when compared to other construction activity in the region. Additionally, as shown in Appendix C, on-road gasoline and diesel fuel consumption associated with construction activity would go down every year as the vehicle fleet becomes more fuel-efficient over time. Implementation of potential emergency access and evacuation improvements under the Safety Element Update could also result in temporary energy use during construction.

Table 3.5-1 summarizes the anticipated operational electricity use, natural gas combustion, and gasoline and diesel fuel consumption associated with the operation of the maximum extent housing sites proposed under the Housing Element Update . This would be typical of residential, commercial, and educational land uses requiring electricity and natural gas for lighting, space and water heating, climate control, home appliances, and landscape maintenance activities.

The Project would increase electricity and natural gas consumption relative to existing conditions; however, construction and operation would not require additional or new electrical or natural gas infrastructure outside of the General Plan area (see Section 3.14, "Utilities and Service Systems").

Housing site development would be required to adhere to the 2019 California Energy Code and any subsequent code updates, historically every three years, throughout the project lifetime. Additionally, as compared to the existing zoning under the General Plan, several parcels would be rezoned to be greater density. For instance, parcels C-1, Sterling Meadows High-Density Residential Site, C-3, Laguna Boulevard and Bruceville Road, and C-4, 2804 Elk Grove Boulevard (among several others) are proposed to be rezoned to RD-30 to provided additional higher-density, affordable housing to meet the City's housing needs (see Table 2-2 in Chapter 2, "Project Description." More densely operated land uses would improve the energy efficiency of the City's residences on a per capita basis as compared to the less dense land uses currently included in the existing Housing Element and General Plan.

Table 3.5-1 Project Operational Energy Consumption for Housing Element Update Housing Sites (2030)

Energy Type	Energy Consumption	Units
Electricity	35,208	MWh/year
Natural Gas	352,077	therms/year
Gasoline	2,180,942	gal/year
Diesel	461,273	gal/year

Notes: MWh/year = megawatt-hours per year; therm/year = thermal units per year, gal/year = gallons per year.

Source: Calculations by Ascent Environmental in 2020

Although energy use was modeled to reflect 2019 California Energy Code, new iterations of the Code are likely, based upon prior State actions, to become increasingly more stringent with updates to the efficiency standards until the Project's final buildout year. The California Energy Code is one mechanism that will assist the state in reaching its long-term energy goals of achieving carbon neutrality by 2045 as mandated by SB 100 (discussed in Section 3.5.1, "Regulatory Setting"). This would result in increased building energy efficiency over time as buildings continue to be developed within the City. Moreover, future development under the Housing Element would be supplied with energy resources that will become increasingly more renewable as utilities (i.e., SMUD) comply with the benchmark goals contained in the RPS (also see Section 3.5.1, "Regulatory Setting"). Additionally, as stated above, the Project would result in greater residential density as existing and candidate sites are rezoning to higher density in response to the City's forecasted housing needs resulting in greater energy efficiency per capita.

Notably, the values presented in Table 3.5-1 for electricity and natural gas consumption are associated with the design elements of the 2019 Title 24 California Building Code. It is foreseeable that the Title 24 California Building Code, and the relevant parts that improve the energy efficiency of residential and nonresidential development (i.e., Part 6, California Energy Code, and Part 11, California Green Building Standards Code), is updated on its triennial basis. At this time, it is unknown how energy efficiency will be upgraded in code updates. Therefore, this analysis provides a more conservative estimate of future energy consumption as it is expected that the Title 24 California Building Code in effect in 2030 would result in more energy efficient development to assist the state in meeting its long-term energy and climate change goals such as SB 100 (See Section 3.7, "Greenhouse Gas Emissions and Climate Change," for additional discussion of applicable statewide regulations, policies, and plans that address reducing GHG emissions associated with the energy sector).

Implementation of the Housing Element and Safety Element Update would also be subject to the energy efficiency actions of the CAP (see Impact 3.5-2). This would be demonstrated through site design submittals and applications for subsequent housing projects for City review and approval under the City's design review process. Therefore, the Project would not have a more severe impact than what was identified in the General Plan EIR. This impact would be less than significant.

Mitigation Measures

No additional mitigation is required beyond compliance with the City's CAP and the 2019 California Energy Code and any subsequent code updates.

Impact 3.5-2: Conflict with or Obstruction of a State or Local Plan for Renewable Energy or Energy Efficiency

The General Plan EIR evaluated consistency with applicable state or local plans for renewable energy and energy efficiency and concluded that the land use under the General Plan would not conflict with an applicable plan. Implementation of the Housing Element and Safety Element Update could increase energy demands compared to existing conditions; however, development would be required to comply with applicable California Energy Code. Additionally, the City's CAP contains several measures that would apply to the housing sites that would reduce overall energy demand. As a result, implementation of the Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Therefore, the Housing Element and Safety Element Update would not have a more severe impact than what was identified in the General Plan EIR. This impact would be **less than significant**.

Impact 5.7-3 of the General Plan EIR evaluated the consistency of land uses under the General Plan against applicable renewable energy and energy efficiency plans, including the City's CAP. The General Plan EIR concluded that because several CAP measures would result in reduced energy demand in addition to reducing GHG emissions, that the General Plan would be consistent with the CAP. The CAP, though designed to reduce GHG emissions specifically, concurrently plays a role in improving energy efficiency and enhancing renewable energy resources, and therefore may be considered to be a plan for renewable energy or energy efficiency.

As noted above, housing sites under the Housing Element Update would be required to comply with the California Energy Code, which are intended to increase the energy efficiency of new development projects in the state. The 2019 California Energy Code (and subsequent updates), which the Project is subject to, is designed to move the state closer to its zero-net energy goals. For these same reasons, the Project would be consistent with the energy conservation Goals and Policies expressed in the City's General Plan identified above in Section 3.5.1, "Regulatory Setting." As also stated in Section 3.5.1, SMUD, as an electricity utility, is required to comply with the future benchmarks of the state's RPS (i.e., 52 percent renewable by 2027, 60 percent by 2030, and 100 percent by 2045). Because electricity utilities in the state are required to increase the percentage of renewable energy sources in the electricity they provide, over time electricity consumed as part of the Project will increasingly be provided by renewable sources.

Additionally, as discussed in the General Plan EIR, the City's CAP contains several measures that would reduce energy demand and increase the City's capacity to generate renewable resources that would apply to the housing sites under the Housing Element Update:

- **BE-1. Building Stock: Promote Energy Conservation.** Promote energy conservation by residents and businesses in existing structures in close coordination with other agencies and local energy providers, including the Sacramento Municipal Utility District (SMUD) and Pacific Gas and Electric (PG&E).
- **BE-5. Building Stock: Phase in Zero Net Energy Standards in New Construction.** Phase in zero net energy (ZNE) standards for new construction, beginning in 2020 for residential projects and 2030 for commercial projects. Specific phase-in requirements and ZNE compliance standards will be supported by updates in the triennial building code updates, beginning with the 2019 update.
- **BE-6. Building Stock: Electrification in New and Existing Residential Development.** Encourage and incentivize new residential developments to include all-electrical appliances and HVAC systems in the design of new projects. Support local utilities in implementing residential retrofit programs to help homeowners convert to all electrical appliances and HVAC systems. Explore the feasibility of phasing in minimum standards for all-electric developments. For certain projects that the City determines are not exempt from CEQA (i.e., an environmental document is required) and that qualify for project-level GHG analysis streamlining under CEQA Guidelines Section 15183.5, compliance with this measure may be required as a mitigation measure, unless other measures are determined by the City to achieve equivalent GHG reductions such that the CAP remains on track to achieving the overall GHG reduction target.

- **BE-7. Building Stock: Solar Photovoltaics in New and Existing Residential and Commercial Development.** Encourage and require installation of on-site solar photovoltaic (PV) in new single-family and low-rise multi-family developments. Promote installation of on-site PV systems in existing residential and commercial development.
- **BE-8. SMUD Greenergy and SolarShares Programs.** Encourage participation in SMUD's offsite renewable energy programs (i.e., Greenergy, SolarShares), which allow building renters and owners to opt into cleaner electricity sources.
- **ACM-5. Affordable Housing.** Continue to promote and require the development of affordable housing in the City.

Additionally, Municipal Code Chapter 16.07 provides streamlined permitting for EV charging stations. Future development constructed and operated under the Housing Element Update that seeks to install EV charging stations would be entitled to use the streamlining mechanisms outlined in Municipal Code Chapter 16.07. Municipal Code Section 23.58.120 requires one "EV ready" parking space for all new one family and two family dwelling units. This section also requires that 2.5 percent of parking for multifamily projects provide EV charging and an additional 2.5 percent of parking be ready for future EV charging expansion. Compliance with these measures would be demonstrated in subsequent project building and site plan submittals for building permit approval and/or design review.

Therefore, the Project would not have a more severe impact than what was identified in the General Plan EIR. This impact would be **less than significant**.

Mitigation Measures

No additional mitigation is required beyond compliance with the City's CAP, including measures BE-1, BE-5, BE-6, BE-7, BE-8, and ACM-5, and Municipal Code Chapter 16.07 and Section 23.58.120.

This page intentionally left blank.