5.2 ENERGY

Section 21100(b)(3) of CEQA requires that an EIR include a detailed statement setting forth mitigation measures proposed to minimize significant effects on the environment, including but not limited to, measures to reduce the wasteful, inefficient, and unnecessary consumption of energy. Appendix F of the State CEQA Guidelines states that, in order to ensure that energy implications are considered in project decisions, the potential energy implications of a project shall be considered in an EIR, to the extent relevant and applicable to the project. Appendix F further states that a project's energy consumption and proposed conservation measures may be addressed, as relevant and applicable, in the Project Description, Environmental Setting, and Impact Analysis portions of technical sections, as well as through mitigation measures and alternatives.

In accordance with Appendices F and G of the State CEQA Guidelines, this EIR includes relevant information and analyses that address the energy implications of the proposed project. This section represents a summary of the proposed project's anticipated energy needs, impacts, and conservation measures. Information found herein, as well as other aspects of the proposed project's energy implications, are discussed in greater detail elsewhere in this EIR, including Chapter 3, *Project Description*, and Sections 5.1, *Air Quality*, 5.4, *Greenhouse Gas Emissions*, and 5.8, *Transportation*.

5.2.1 Environmental Setting

5.2.1.1 REGULATORY BACKGROUND

Federal Regulations

Energy Independence and Security Act of 2007

The Energy Independence and Security Act of 2007 (Public Law 110-140) seeks to provide the nation with greater energy independence and security by increasing the production of clean renewable fuels; improving vehicle fuel economy; and increasing the efficiency of products, buildings, and vehicles. It also seeks to improve the energy performance of the federal government. The Act sets increased Corporate Average Fuel Economy Standards; the Renewable Fuel Standard; appliance energy efficiency standards; building energy efficiency standards; and accelerated research and development tasks on renewable energy sources (e.g., solar energy, geothermal energy, and marine and hydrokinetic renewable energy technologies), carbon capture, and sequestration.

State Regulations

Renewables Portfolio Standard

The California Renewables Portfolio Standard (RPS) was established in 2002 under SB 1078 and was amended in 2006 , 2011 and 2018. The RPS program requires investor-owned utilities, electric service providers, and community choice aggregators to increase the use of eligible renewable energy resources to 33 percent of total procurement by 2020. The California Public Utilities Commission is required to provide quarterly progress reports on progress toward RPS goals. This has accelerated the development of renewable energy projects throughout the State. Based on the 3rd quarter 2014 report, the three largest retail energy

utilities provided an average of 20.9 percent of its supplies from renewable energy sources. Since 2003, 8,248 megawatts of renewable energy projects have started operations (CPUC 2014). SB 350 (de Leon) was signed into law September 2015 and establishes tiered increases to the RPS—40 percent by 2024, 45 percent by 2027, and 50 percent by 2030. SB 350 also set a new goal to double the energy-efficiency savings in electricity and natural gas through energy efficiency and conservation measures. SB 100 (de Leon) passed in 2018 puts California on the path to 100 percent fossil-fuel free electricity by the year 2045.

State Alternative Fuels Plan

AB 1007 requires the California Energy Commission (CEC) to prepare a plan to increase the use of alternative fuels in California. The State Alternative Fuels Plan was prepared by the CEC with the California Air Resources Board and in consultation with other federal, state, and local agencies to reduce petroleum consumption; increase use of alternative fuels (e.g., ethanol, natural gas, liquefied petroleum gas, electricity, and hydrogen); reduce greenhouse gas (GHG) emissions; and increase in-state production of biofuels. The State Alternative Fuels Plan recommends a strategy that combines private capital investment, financial incentives, and advanced technology that will increase the use of alternative fuels; result in significant improvements in the energy efficiency of vehicles; and reduce trips and vehicle miles traveled through changes in travel habits and land management policies. The Alternative Fuels and Vehicle Technologies Funding Program legislation (AB 118, Statutes of 2007) proactively implements this plan (CEC 2007).

Appliance Efficiency Regulations

California's Appliance Efficiency Regulations (CCR Title 20, Parts 1600–1608) contain energy performance, energy design, water performance, and water design standards for appliances that are sold or offered for sale in California (including refrigerators, ice makers, vending machines, freezers, water heaters, fans, boilers, washing machines, dryers, air conditioners, pool equipment, and plumbing fittings). These standards are updated regularly to allow consideration of new energy efficiency technologies and methods.

Title 24, Part 6, Energy Efficiency Standards

The Energy Efficiency Standards for Residential and Nonresidential Buildings (24 CCR Part 6) were established in 1978 in response to a legislative mandate to reduce California's energy consumption. The CEC adopted the 2008 changes to the Building Energy Efficiency Standards in order to (1) "Provide California with an adequate, reasonably-priced, and environmentally-sound supply of energy" and (2) "Respond to Assembly Bill 32, the Global Warming Solutions Act of 2006, which mandates that California must reduce its greenhouse gas emissions to 1990 levels by 2020." Title 24 Part 6 of the 2013 California Building Standards Code, the 2013 California Energy Code, went into effect on July 1, 2014, and includes energy efficiency updates (CBSC 2015). Buildings that are constructed in accordance with the 2013 Building and Energy Efficiency Standards are 25 percent (residential) to 30 percent (nonresidential) more energy efficient than the 2008 standards as a result of better windows, insulation, lighting, ventilation systems, and other features.

Most recently, the CEC adopted the 2016 Building and Energy Efficiency Standards. The 2016 Standards will continue to improve upon the current 2013 Standards for new construction of, and additions and alterations to, residential and nonresidential buildings. These standards went into effect on January 1, 2017. Under the

2016 Standards, residential buildings are 28 percent more energy efficient than the 2013 Standards, and nonresidential buildings are 5 percent more energy efficient than the 2013 Standards (CEC 2015a).

The 2016 standards will not achieve zero net energy. However, they do get very close to the state's goal and make important steps toward changing residential building practices in California. The 2019 standards will take the final step to achieve zero net energy for newly constructed residential buildings throughout California (CEC 2015b).

Title 24, Part 11, Green Building Standards

CALGreen (24 CCR Part 11) is a code with mandatory requirements for new residential and nonresidential buildings throughout California. CALGreen is intended to (1) reduce GHG emissions from buildings; (2) promote environmentally responsible, cost-effective, healthier places to live and work; (3) reduce energy and water consumption; and (4) respond to the directives by the governor. In short, the code is established to reduce construction waste, make buildings more efficient in the use of materials and energy, and reduce environmental impact during and after construction. CALGreen contains requirements for construction site selection; storm water control during construction; construction waste reduction; indoor water use reduction; material selection; natural resource conservation; site irrigation conservation; and more. The code provides for design options allowing the designer to determine how best to achieve compliance for a given site or building condition. The code also requires building commissioning, which is a process for verifying that all building systems (e.g., heating and cooling equipment and lighting systems) are functioning at their maximum efficiency (CBSC 2015).

Assembly Bill 1493

California vehicle GHG emission standards were enacted under AB 1493 (Pavley I). Pavley I is a clean-car standard that reduces GHG emissions from new passenger vehicles (light-duty auto to medium-duty vehicles) from 2009 through 2016 and is anticipated to reduce GHG emissions from new passenger vehicles by 30 percent in 2016. California implements the Pavley I standards through a waiver granted to California by the EPA. In 2012, the EPA issued a Final Rulemaking that sets even more stringent fuel economy and GHG emissions standards for model year 2017 through 2025 light-duty vehicles (see also the discussion on the update to the Corporate Average Fuel Economy standards under *Federal*, above). In January 2012, the California Air Resources Board approved the Pavley Advanced Clean Cars program (formerly known as Pavley II) for model years 2017 through 2025. The program combines the control of smog, soot, and global warming gases and requirements for greater numbers of zero-emission vehicles into a single package of standards. Under California's Advanced Clean Car program, by 2025, new automobiles will emit 34 percent fewer global warming gases and 75 percent fewer smog-forming emissions.

County Regulations

Los Angeles Countywide Sustainability Plan

The Los Angeles County Board of Supervisors adopted the final OurCounty Los Angeles Countywide Sustainability Plan (OurCounty) on Tuesday, August 6, 2019. This plan was prepared by the Los Angeles County Chief Sustainability Office working with an interdisciplinary team of consultants.

OurCounty provides the following 12 goals that describe the County's vision for a sustainable Los Angeles County: Example targets and actions that implements strategies of the 12 goals are also listed.

- **Goal 1:** Resilient and healthy community environments where residents thrive in place
  - **Example Target:** Decrease childhood asthma prevalence to 5% by 2045; Meet 100% of Regional Housing Needs Assessment (RHNA) housing production targets for very low, low, and moderate-income housing by 2045 in the unincorporated areas.

- **Goal 2:** Buildings and infrastructure that support human health and resilience
  - **Example Targets:** Convert 30% of heat-trapping surfaces to cool or green surfaces; 100% of major building renovations to be net zero carbon; Source 80% of water locally.

- **Goal 3:** Equitable and sustainable land use and development without displacement
  - **Example Target:** At least 75% of new housing is built within half a mile of high-frequency transit by 2045.

- **Goal 4:** A prosperous LA County that provides opportunities for all residents and businesses and supports the transition to a green economy
  - **Example Action:** Collaborate with the City of Los Angeles and others to develop a "just transition" plan and task force; Reduce average Housing + Transportation Cost Index to 40%, with no resident paying more than 66% income by 2045

- **Goal 5:** Thriving ecosystems, habitats, and biodiversity.
  - **Example Target:** No loss of native biodiversity.

- **Goal 6:** Accessible parks, beaches, recreational waters, public lands, and public spaces that create opportunities for respite, recreation, ecological discovery, and cultural activities
  - **Example Target:** Increase to 85% the portion of residents living within half a mile of parks and open space

- **Goal 7:** A fossil fuel-free LA County
  - **Example Target:** By 2050, achieve carbon neutrality.

- **Goal 8:** A convenient, safe, clean, and affordable transportation system that enhances mobility while reducing car dependency
  - **Example Target:** By 2045, at least 50% of all trips will be by foot, bike, micromobility, or public transit

- **Goal 9:** Sustainable production and consumption of resources
  - **Example Target:** by 2045, divert over 95% of waste from landfills

- **Goal 10:** A sustainable and just food system that enhances access to affordable, local, and healthy food
  - **Example Target:** By 2025, 100% enrollment of eligible households in calfresh/snap

- **Goal 11:** Inclusive, transparent, and accountable governance that facilitates participation in sustainability efforts, especially by disempowered communities
  - **Example Action:** develop inclusive community engagement guidelines and activities for county planning projects

- **Goal 12:** A commitment to realize OurCounty sustainability goals through creative, equitable, and coordinated funding and partnerships
  - **Example Action:** apply sustainability as a lens for consideration of departmental budget requests, especially to support implementation of the sustainability plan.

In addition to OurCounty, the County if developing a Climate Action Plan. The County's current Community Climate Action Plan was adopted by the Board of Supervisors in 2015 as part of the update of the General Plan and expires in 2020. The new Climate Action Plan will align with OurCounty, but differs in that it will be an enforceable document amended into the County's General Plan and will go through a formal environmental review process. The Climate Action Plan will apply to unincorporated communities only.

5.2.1.2 EXISTING CONDITIONS

The project site is developed as an elementary school and consumes electrical and gas energy. The existing school consumes electricity for heating, cooling, and ventilation of buildings; water heating; operation of electrical systems; lighting; use of on-site equipment and appliances; etc.

The baseball fields are equipped with nighttime lighting poles. Southern California Edison and Southern California Gas Company provide electrical and natural gas energy services.

5.2.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

E-1 Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.

E-2 Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

The Initial Study, included as Appendix A, substantiates that impacts associated with the following threshold would be less than significant:

- Threshold E-2

This impact will not be addressed in the following analysis.

5.2.3 Plans, Programs, and Policies

Regulatory Requirements

RR AIR-1 New buildings are required to achieve the current California Building Energy and Efficiency Standards (Title 24, Part 6) and California Green Building Standards Code (CALGreen) (Title 24, Part 11). The 2016 Building and Energy Efficiency Standards were effective starting January 1, 2017, and the 2019 Building and Energy Efficiency Standards will become effective January 1, 2020. The Building Energy and Efficiency Standards and CALGreen are updated tri-annually with a goal to achieve zero net energy (ZNE) for residential buildings by 2020 and nonresidential buildings by 2030.

RR AIR-2 New buildings are required to adhere to the California Green Building Standards Code (CALGreen) requirement to provide bicycle parking for new nonresidential buildings, or meet local bicycle parking ordinances, whichever is stricter (CALGreen Sections 5.106.4.1, 14.106.4.1, and 5.106.4.1.2).

RR AIR-3 Construction activities will be conducted in compliance with the California Code of Regulations, Title 13, Section 2499, which requires that nonessential idling of construction equipment be restricted to five minutes or less.

5.2.4 Environmental Impacts

5.2.4.1 IMPACT ANALYSIS

The following impact analysis addresses thresholds of significance for which the Initial Study disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

Impact 5.2-1: The proposed project would not result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of electric power and natural gas energy resources. [Threshold E-1])

The project site is already developed and consumes an average annual electricity demand of approximately 181,210 kilowatt hours (kWh) and natural gas demands of approximately 246,602 kBTU/year.[1] Construction of the proposed project would require electricity and gas use to power the construction equipment. The electricity use during construction would vary during different phases of construction, where the majority of construction equipment during demolition and grading would be gas powered or diesel powered, and the later construction phases would require electricity powered, such as interior construction and architectural coatings. The proposed project would be constructed in two phases. As the project site and its surrounding area are already served by on-site electrical and natural gas infrastructure, adequate infrastructure capacity is

[1] This is based on estimated 28,345 building square feet associated with existing Wedgeworth Elementary School.

available to accommodate the electricity and gas demands during construction and would not require additional or expanded electrical infrastructure.

The construction contractors are anticipated to minimize idling of construction equipment during construction as required by Regulatory Requirements RR AIR-3. Such required practices would limit wasteful and unnecessary energy consumption.; therefore, increased electrical and gas energy demands would result from project implementation.

Similar to the existing elementary school, operation of the new K-8 school would consume electricity and gas for various purposes—heating, cooling, and ventilation of buildings, water heating, operation of electrical systems, security and control center functions, lighting, use of on-site equipment and appliances, etc. As shown in Table 5.2-1, the current electricity use at the project site is approximately 181,210 kWh/year, and proposed project generate approximately 1,447,255 kWh/year at buildout, an increase of 1,266,045 kWh/year. The project site is already served by Southern California Edison (SCE), and SCE is the primary electricity supplier for much of southern California that provides extensive and reliable electricity services in Hacienda Heights. As shown in Table 5.1-1, the existing Wedgeworth ES currently has a natural gas demand of 246,602 kilo-British Thermal Units (kBTU) annually, and at buildout, the proposed project would use 3,612,475 kBTU of natural gas annually, an increase of 3,365,873 kBTU/year.

The availability of electric power and natural gas services is based on present electric power and natural gas supply and regulatory policies. SCE and Southern California Gas Company (SCG) are public utility companies that are under the auspices of the Public Utilities Commission and federal regulatory agencies. Should these agencies take any action that affects electric power and natural gas supplies or the conditions under which services are available, electric power and natural gas services would be provided in accordance with revised conditions. The proposed project is required to comply with the current Building Energy Efficiency Standards and CALGreen requirements (RR AIR-1 and RR AIR-2) and would not result in wasteful or unnecessary electricity and/or natural gas demands. No significant impacts are anticipated.

Table 5.2-1 Electricity and Natural Gas Consumption

Existing[1]	Proposed Project		Net Change
	Phase 1: K-8 School	Phase 2: Residential Development	
Electricity			
181,210 kWh/year	638,439 kWh/year	808,816 kWh/year	1,266,045 kWh/year
	1,447,255 kWh/year		
Natural Gas			
246,602 kBTU/year	864,225 kBTU/year	2,748,250 kBTU/year	3,365,873 kBTU/year
	3,612,475 kBTU/year		

CalEEMod Version 2016.3.2.
[1] Based on estimated 28,345 building square feet associated with existing Wedgeworth Elementary School.

Level of Significance Before Mitigation: Less than significant impact.

5.2.5 Cumulative Impacts

The areas considered for cumulative impacts to electricity and natural gas supplies are the service areas of SCE and SCG, respectively. Other projects would generate increased electricity and natural gas demands, however, these projects are also required comply with the most recent Building Energy Efficiency Standards and CALGreen requirements to ensure that no wasteful, inefficient, or unnecessary consumption of energy resources occur. Individual impacts would be less than significant, and project impacts would not be cumulatively considerable.

5.2.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements Impact 5.2-1 would be less than significant.

5.2.7 Mitigation Measures

No mitigation measures are required.

5.2.8 Level of Significance After Mitigation

No significant unavoidable adverse impacts to energy have been identified and no mitigation measures are required.

5.2.9 References

California Energy Commission (CEC). 2015a, February 24. California Energy Utility Service Areas. http://www.energy.ca.gov/maps/serviceareas/Electric_Service_Areas_Detail.pdf.

———. 2015b, February 24. California Natural Gas Detailed Utility Service Areas. http://www.energy.ca.gov/maps/serviceareas/natural_gas_detailed_service_areas.pdf.

———. 2017, August. California Energy Demand Updated Forecast, 2018-2028. https://efiling.energy.ca.gov/getdocument.aspx?tn=220615.

California Gas and Electric Utilities (CGEU). 2018, July. 2018 California Gas Report. https://www.socalgas.com/regulatory/documents/cgr/2018_California_Gas_Report.pdf.

Los Angeles, County of. 2019, August. Our County, Los Angeles Countywide Sustainability Plan. https://ourcountyla.org/wp-content/uploads/2019/07/OurCounty-Final-Plan.pdf

Southern California Edison (SCE). 2017, October 27. Power Content Label: 2016. http://www.energy.ca.gov/pcl/labels/2016_labels/Southern_California_Edison-Default.pdf.