

9. Energy

Section 21100(b) of CEQA requires that an EIR include a detailed statement setting forth mitigation measures proposed to minimize a project's 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 Appendix F 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 5.2, *Air Quality*, 5.6, *Greenhouse Gas Emissions*, and 5.12, *Transportation and Traffic*.

9.1 REGULATORY SETTING

9.1.1 Federal

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.

9.1.2 State

Renewables Portfolio Standard

The California Renewables Portfolio Standard (RPS) was established in 2002 under SB 1078 and was amended in 2006 and 2011. The RPS program requires investor-owned utilities, electric service providers, and

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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 (MW) 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.

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 CARB 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 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 (including refrigerators, ice makers, vending machines, freezers, water heaters, fans, boilers, washing machines, dryers, air conditioners, pool equipment, and plumbing fittings) that are sold or offered for sale in California. 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.

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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 will go 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, CARB 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.

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9.1.3 County

Countywide Energy and Environmental Policy

The Countywide Energy and Environmental Policy (Policy) was adopted by the County Board of Supervisors on January 16, 2007, to provide guidelines for the development and enhancement of energy conservation and environmental programs within County departments. The Policy was also the County's response for the need for energy conservation and reduction in GHG emissions. It directs the County to track its GHG emissions with the California Climate Action Registry, and to reduce its facilities' energy consumption by 20 percent by the year 2015.

In addition, the County has implemented various internal programs on energy conservation; water conservation; waste reduction and recycling; green purchasing and contracting; and alternative fuel vehicle purchasing. On January 13, 2009, the County created an action plan for developing a Comprehensive Renewable Energy Program to develop renewable energy projects on existing County facilities and properties.

County Renewable Energy Ordinance

The County adopted the Renewable Energy Ordinance and certified the associated FEIR on July 14, 2015 (Los Angeles County 2015b). This Countywide ordinance amends Title 22 (Planning and Zoning) of the County Code to provide a set of definitions, procedures and standards for review and permitting of solar and wind energy projects. These include solar and wind projects generating energy for on-site (small-scale) or off-site (utility-scale) use as well as temporary meteorological towers.

9.2 EXISTING CONDITIONS

9.2.1 Electricity

The LADWP provides electricity to approximately 465 square mile area, including the Project Site. LADWP provides over 23.5 million kilowatt-hours of electricity to its customers annually. In 2012, the latest year for which data are available, 20 percent of LADWP's electricity supplies were from renewable energy (with two-thirds of that being from wind); 21 percent natural gas; 10 percent nuclear power; 33 percent coal; four percent large hydroelectric generation; and 12 percent unspecified sources (LADWP 2011). LADWP experienced an all-time net energy-for-load peak demand of 6,341 MW, with an instantaneous peak demand of 6,396 MW, which occurred on September 16, 2014, and has an installed net dependable generation capacity of 7,639 MW. LADWP has 162 distributing stations and approximately 6,800 miles of overhead distribution lines and 3,597 miles of underground distribution cables. LADWP is a "vertically integrated" utility – both owning and operating the majority of its generation, transmission, and distribution systems. LADWP is currently fully resourced to meet peak demand.

According to the 2014 Final Power Integrated Resource Plan, which identifies actions that are central to the continued reliability of the LADWP power system, the LADWP's electricity supplies would change over the next 15 years to replace over 70 percent of energy infrastructure. By 2026, LADWP plans to supply its power

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sources from 40 percent natural gas, 33 percent renewable energy, 15 percent energy efficiency, 8 percent nuclear, and 4 percent hydroelectric generation.

9.2.2 Natural Gas

The Southern California Gas Company (SCG) provides natural gas to the Project Site. SCG forecasts that its natural gas supplies will remain constant at 3.875 billion cubic feet per day (Bcf/day)¹ from 2015 through 2030 for southern California (CGEU 2014). SCG owns and operates four underground storage facilities located at Aliso Canyon (partially back on-line), Honor Rancho, Goleta, and Playa del Rey, which have a total of 137.1 Bcf of storage capacity. A high pressure distribution line operating at pressures above 60 psi traverses North Vignes Street (SCG 2015).

9.3 PLANS, PROGRAMS, AND POLICIES

9.3.1 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 are effective starting on January 1, 2017. The Building Energy and Efficiency Standards and CALGreen are updated tri-annually with a goal to achieve net zero energy for residential buildings by 2020 and non-residential buildings by 2030. The County's green building standards which implement and exceed CALGreen are identified County Code, Title 31. The County has adopted the Voluntary Tier 1 standards for non-residential construction greater than or equal to 25,000 square feet (CALGreen Section 301.3.1, "Buildings greater than or equal to 25,000 square feet").²
- RR AIR-2 New buildings are required to adhere to the California Green Building Standards Code (CALGreen) requirement to provide bicycle parking for new non-residential 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). The Proposed Project would be required to provide anchored bicycle racks within 200 feet of the visitors' entrance, readily visible to passers-by, for 5 percent of new visitor motorized vehicle parking spaces being added. For employees, long-term secured bicycle parking is required to be provided for 5 percent of the tenant-occupied (i.e., staff) motorized vehicle parking spaces being added. The Proposed Project is also required to designate parking for low-emitting, fuel-efficient, and carpool/vanpool spaces identified in CALGreen. As the County's Green Building Ordinance requires compliance with the Tier^o1 voluntary measures in section A5.601.2.4, the Proposed Project will be

¹ This is based on the SCG/SDG&E Current Firm Receipt Capacity total from five transmission zones.

² With the exception that high-rise non-residential construction would be subject to the mandatory (Table A4.106.5.1(3)), rather than the Tier 1 voluntary, measures for solar reflectance in Table A5.106.11.2.2.

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required to provide low-emitting, fuel-efficient, and carpool/vanpool spaces for 10 percent of the total parking capacity.

- RR AIR-3 The Proposed Project will include an Employee Commute Reduction Plan (ECRP), commonly known as the Rideshare Plan, in accordance with County Code Chapter 5.9, Vehicle Trip Reduction. The ECRP will specify the measures to be implemented at the Consolidated Correctional Treatment Facility to achieve the target average vehicle ridership performance goal for employee vehicles subject to the Ordinance.
- RR AIR-4 Shuttle bus use will be conducted in compliance with 13 California Code of Regulations (CCR) Section 2485, which requires that all diesel-fueled commercial motor vehicles must not idle for more than 5 consecutive minutes at any location
- RR AIR-5 Construction activities will be conducted in compliance with 13 California Code of Regulations (CCR) Section 2499, which requires that nonessential idling of construction equipment is restricted to five minutes or less.
- RR AIR-8 Executive Order B-18-12 called for new or renovated state buildings larger than 10,000 square feet to achieve the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) "Silver" certification. In 2007, the County identified a similar policy for County buildings and in 2016 adopted the LEED "Gold" standard under its Energy and Environmental Policy. The Proposed Project would be constructed to comply with the County's Energy and Environmental Policy and achieve a minimum of LEED Gold certification.
- RR USS-3 The Project will be constructed in accordance with the County's Green Building Standards Code and Construction and Demolition Debris Recycling and Reuse Ordinance, which requires a minimum of 65 percent of the "non-hazardous construction and demolition debris" (by weight or volume) to be recycled or reused unless a lower percentage is approved by the Director of Public Works.
- RR USS-4 The Project will be designed, constructed, and operated in accordance with the County's Departmental Recycling Program Directives to implement waste reduction and recycling measures.

9.4 ENERGY IMPACTS OF THE PROPOSED PROJECT

Based on CEQA Guidelines Appendix F, Energy Conservation, in order to ensure energy implications are considered in project decisions, CEQA identifies that EIRs include a discussion of the potential impacts of proposed projects, with particular emphasis on avoiding or reducing wasteful, unnecessary, or inefficient use of energy resources as applicable. Environmental effects may include the Proposed Project's energy requirements and its energy use efficiencies by amount and fuel type during demolition, construction, and operation; the effects of the Proposed Project on local and regional energy supplies; the effects of the Proposed Project on peak and base period demands for electricity and other forms of energy; the degree to

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which the Proposed Project complies with existing energy standards; the effects of the Proposed Project on energy resources; and the Proposed Project's projected transportation energy use requirements and its overall use of efficient transportation alternatives, if applicable. This discussion is provided below.

9.4.1 Short-Term Construction Impacts

Construction of the Proposed Project would create temporary increased demands for electricity and vehicle fuels compared to existing conditions and would result in short-term transportation-related energy use. During construction, off-site haul of some soil will be required. Construction of the CCTF on the Project Site is expected to require off-site haul of approximately 90,000 cubic yards of soil. Under Option 1, construction of the parking structure at the SSPS Site would require off-site haul of approximately 27,000 cubic yards of soil. Under Option 2, construction of the parking structure at the Vignes Lot would require off-site haul of approximately 80,000 cubic yards of soil. Project completion is expected by the end of 2027.

Electrical Energy

The Project Site is already developed and consumes an average annual electricity demand of 16,046,821 kilowatt hours (kWh) (Los Angeles County 2015a). Construction of the Proposed Project would require electricity 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, where existing structures on approximately 50 percent of the Project Site would be demolished during each phase. As a result, electricity consumption during construction would be reduced as compared to existing conditions. As the Project Site is already served by onsite electrical infrastructure, adequate infrastructure capacity is available to accommodate the electricity demand during construction would not require additional or expanded electrical infrastructure.

The construction contractors are anticipated to minimize idling of construction equipment during construction and reduce construction and demolition waste by recycling, as required by Regulatory Requirements RR AIR-5 and RR USS-3. Such required practices would limit wasteful and unnecessary electrical energy consumption.

Gas Energy

As described above, the Proposed Project would be constructed in two phases, where existing structures on approximately 50 percent of the Project Site would be demolished during each phase. As a result, natural gas consumption during construction would be reduced as compared to existing conditions. The construction-related equipment would not be powered by natural gas and no natural gas demand is anticipated during construction. No new or expanded natural gas facilities or supply are anticipated.

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Transportation Energy

Transportation energy use depends on the type and number of trips, vehicle miles traveled, fuel efficiency of vehicles, and travel mode. Transportation energy use during construction would come from the transport and use of construction equipment, delivery vehicles and haul trucks, and construction employee vehicles that would use diesel fuel and/or gasoline. The use of energy resources by these vehicles would fluctuate according to the phase of construction and would be temporary. The majority of construction equipment during demolition and grading would be gas-powered or diesel-powered, and the later construction phases would utilize electricity-powered equipment. As discussed in Section 5.2 *Air Quality*, all diesel-fuel commercial motor vehicles must not idle for more than 5 consecutive minutes at any location. The amount of fuel usage by type during construction has been calculated using outputs from the CalEEMod Air Quality Computer Model. Based on these outputs, off-site haul of debris and soil export would consume approximately 88,017 gallons of diesel fuel under Option 1, and approximately 93,664 gallons of diesel fuel under Option 2. On-site grading and construction activities are estimated to consume approximately 859,460 gallons of diesel fuel under Option 1, and approximately 861,081 gallons of diesel fuel under Option 2. Total diesel fuel consumption is estimated to be approximately 947,477 gallons under Option 1 and approximately 954,745 gallons under Option 2. During project construction, between 600 and 2,000 design, engineering, and construction-related jobs would be created, depending on the phase of construction (LADPW 2017). Transportation to the job-site is estimated to consume approximately 881,754 gallons of regular gasoline under Option 1 and approximately 904,133 gallons of regular gasoline under Option 2. Therefore, over the 9.5 years of construction, total fuel consumption is estimated to be approximately 1,829,231 gallons under Option 1 and 1,858,878 under Option 2. Impacts related to transportation energy use during construction would be temporary and would not require expanded energy supplies or the construction of new infrastructure. Impacts would not be significant.

9.4.2 Long-Term Operational and Maintenance Impacts

Operation of the Proposed Project would create additional demands for electricity and natural gas compared to existing conditions, and would result in increased transportation energy use. Operational use of energy would include heating, cooling, and ventilation of buildings; water heating; operation of electrical systems, security and control center functions, use of on-site equipment and appliances; and indoor, outdoor, perimeter, and parking lot lighting.

Electrical Energy

Operation of the existing MCJ facility consumes electricity for various purposes, including, but not limited to heating, cooling, and ventilation of buildings, water heating, operation of electrical systems, security and control center functions, lighting, use of onsite equipment and appliances, etc. Based on the historical electricity consumption data, the existing MCJ consumed an average 16.1 gigawatt hour (gWh) annually (Los Angeles County 2015a). LADWP's 2013-2014 net energy demand was 26,765 gWh.³ Therefore, the existing

³ Los Angeles Department of Water and Power. 2014, September 11. 2014 Retail Electric Sales and Demand Forecast, Appendix A. Net Energy For Load – GWH, 2014 Appendix A Energy and Demand Forecast, 2000-2001 through 2039-2040 Fiscal Year.

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MCJ facility currently represents less than 1 percent of the LADWP's total demand (i.e., approximately 0.06 percent). Existing and proposed electricity consumption for the Project Site, SSPS Site, and Vignes Lot are shown in Table 9-1.

Table 9-1 Electricity Consumption

Location	Average Annual kWh/Year		
	Existing ¹	Proposed Project ²	Net Change
Project Site	16,046,821	16,310,720	263,899
SSPS Site (Option 1)	25,669	1,834,150	1,808,481
Vignes Lot (Option 2)	0	3,668,230	3,668,230

Notes:

¹ Existing LADWP electricity consumption provided by the ISD/Energy Management Division. Average annual electricity use at the MCJ and the SSPS Site is based on a 3-year average electricity consumption for years 2010 to 2012. For purposes of this analysis, the existing Vignes Lot is assumed to not consume any electricity.

² Proposed Project electricity consumption for the habitable building structures is based on data provided by AECOM, which projects an annual average electricity consumption for the new 2.4-million-square-foot CCTF facility at 14,100,000 kWh/year. Electricity consumption for the onsite staff parking structure and the SSPS Site is based on the CalEEMod default energy use for an enclosed parking structure with an elevator.

Electrical service to the Proposed Project would be provided by LADWP through connections to existing offsite electrical lines and new onsite infrastructure. Although the Proposed Project would result in an increase in the overall building square footage located on-site, the Proposed Project would only result in minimal increases in overall energy use. As shown in Table 9-1, electricity use at the Project Site would only increase by 263,899 kWh/year, or 1.6 percent. This is primarily due to the substantial increase in building energy efficiency associated with the new building structures compared to the 1960s and 1970s era structures on the Project Site. Under Option 1, construction of the SPSS would increase electricity use by approximately 1,808,481 kWh/year. Under Option 2, construction of a parking structure on the Vignes Lot would increase electricity use by approximately 3,668,230 kWh/year.

To forecast growth, LADWP uses the following sources: historical sales, historical weather data, historical employment data, historic population and forecasts data, economic forecast data, construction activity forecast data, plug-in vehicle forecast data, port electricity forecast data, and housing forecast data. (LADWP 2014) Therefore, LADWP's forecasted electricity demand assumes construction of new projects within its service area, such as the Proposed Project. Therefore, the net increase in power demand associated with the Proposed Project is anticipated to be within the service capabilities of LADWP and would not result in the need for new electricity supplies or adversely impact the LADWP's renewable energy resource supplies.

The Proposed Project would be required to comply with the current Building Energy Efficiency Standards and to implement Countywide energy and environmental policy to achieve Gold rating or better LEED certification. The Proposed Project would be consistent with the requirements of these energy-related regulations, and would not result in wasteful or unnecessary electricity demands. Therefore, the Proposed Project would not result in a significant impact related to electricity.

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Gas Energy

The existing MCJ facility generated an average natural gas demand of 1.59 million therms per year (Los Angeles County 2015c). Existing and proposed natural gas consumption for the Project Site is shown in Table 9-2.

Development pursuant to the Proposed Project would result in a net decrease in the natural gas demands. This is primarily due to the substantial increase in building energy efficiency associated with the new building structures compared to the 1960s and 1970s era structures on the site. The Project Site is already served by SCG, and the increased development intensities in the area would require upgrades to the existing system. Gas service would be added to the existing system by SCG as necessary to meet the requirements. There is extensive and reliable gas services in the area, and the improvements would occur in accordance with the SCG’s policies and extension rules on file with the Public Utilities Commission (PUC) when the contractual agreements are made. The availability of natural gas service is based on present gas supply and regulatory policies. As a public utility, SCG is under the auspices of the PUC and federal regulatory agencies. Should these agencies take any action that affects gas supply or the conditions under which service is available, gas service would be provided in accordance with revised conditions. No significant impacts are anticipated.

Table 9-2 Natural Gas Consumption

Location	Average Annual Therms		
	Existing ¹	Proposed Project ²	Net Change
Project Site	1,588,669	1,081,000	-507,669

Notes:

¹ Existing Southern California Natural Gas consumption provided by the ISD/Energy Management Division. Average annual natural gas use at the Project Site is based on a 3-year average electricity consumption for years 2011 to 2013.

² Proposed Project natural gas consumption for the habitable building structures is based on data provided by AECOM.

Transportation Energy

The Proposed Project would consume transportation energy during operations from the use of motor vehicles. Because the efficiency of the motor vehicles in use, such as the average miles per gallon for motor vehicles involved with the CCTF are unknown, estimates of transportation energy use is assessed based on the overall VMT and related transportation energy use. The CCTF-related VMT would come from staff and volunteer vehicle trips (worker trips), inmate-patient transport trips, delivery/supply trucks, inmate-patients’ visitors trips (e.g., lawyers, family members, and friends), and trips by maintenance and repair crews. The total annual VMT for the existing MCJ facility is 105,639,367, which includes inmate bus transportation (2,437,500 VMT), MCJ and TTCF visitors (2,007,500 VMT), deliveries (219,000 VMT) and workers (100,975,367 VMT)⁴ (Fehr & Peers 2017). Under the current condition of 105,639,367 VMT, the transportation energy demand is

⁴ The traffic study includes both TTCF and MCJ workers and deliveries since this currently occurs at the TTCF site.

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estimated at 4,862,525 gallons per year⁵ of gasoline and diesel fuel. It is noted that the worker VMT accounts for approximately 96 percent of the total annual VMT.

The Proposed Project would increase total annual VMT by 2,473,240 to 108,112,607, a 2.3 percent increase from existing conditions. At buildout, the Proposed Project would consume an estimated 3,578,615 gallons per year⁶ of gasoline and diesel fuel. Compared to existing conditions, this results in a net decrease in fuel consumption of 1,283,910 gallons per year of gasoline and diesel fuel. The primary reason for this decrease is an increase in the average corporate fuel economy of vehicles as a result of state and federal laws, including the Pavley Advanced Clean Cars program, as well as vehicle turn over, that improves the overall fuel economy of California's vehicle fleets.

The City of Los Angeles and its surrounding area are highly urbanized with numerous gasoline and diesel fuel facilities and infrastructure. Consequently, the Proposed Project would not result in a substantial demand for energy that would require expanded supplies or the construction of other infrastructure or expansion of existing facilities.

Other Considerations

In addition to the evaluation above, other CEQA considerations related to energy including whether a building should be constructed at all, how large it should be, where it should be located, whether it should incorporate renewable energy resources. These considerations are discussed below:

Project Need: The Project Site is developed with 935,150 gross square feet of jail facility. The MCJ is the oldest facility in the County jail system and according to the Jail Plan Report, the jail facilities that are more than 50 years old are reaching the end of their expected life span for this type of construction and use. The electrical, mechanical and plumbing systems have surpassed a reasonably-expected 30-year life span and are costly and difficult to maintain. At times, custom-made parts are required for the repairs because they are no longer available on the market. The existing MCJ does not meet the requirements of the BSCC, ADA, and other applicable correctional standards. For example, the BSCC pursuant to Title 24, Sections 1231.3.1, through 1231.3.4, requires correct plumbing fixture ratios for all facilities. However, outdated MCJ does not meet the required plumbing fixtures-to-inmate ratios. The Vanir Report also reported many ADA accessibility issues such as entry thresholds that exceed maximum allowable heights, vestibule door swings that are too narrow, plumbing fixtures at the wrong heights and lacking proper controls. Pursuant to Title 24, Section on 1231.2.10, many of the jail exercise areas do not fulfill the minimum square footage and capacity to enable the proper amount of exercise time per inmate each day. Furthermore, unless the existing MCJ facility is replaced, the County would not meet its goals to reduce incarceration and focus on diversion by providing integrated health care programs for mental-health, medical, and substance use disorder treatment needs of inmate-patients. Therefore, replacement of the existing MCJ facility is necessary.

⁵ Based on CARB's EMFAC 2014 fleet efficiency for year 2016 based on the fleet mix included in the traffic study, as modeled in CalEEMod.

⁶ Based on CARB's EMFAC 2014 fleet efficiency for year 2027 based on the fleet mix included in traffic study, as modeled in CalEEMod.

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Building Size: The County proposes to reuse the existing MCJ site to develop and operate a new CCTF with no more than 3,885 inmate-patient beds and totaling approximately 2.4 million square feet. Based on the objectives established for the project, the size of the proposed buildings are the minimum necessary to serve 3,885 inmate-patients. Therefore, construction of a smaller facility is not possible without reducing the capacity of the proposed CCTF.

Project Location: The Proposed Project includes replacement of an existing facility located in the downtown Los Angeles area. This downtown location near courts and other medical and mental health facilities reduces vehicle miles travelled and associated gasoline consumption. Additionally, the moderate climate in Los Angeles reduces energy demands as compared to other possible locations in the County such as the Antelope Valley. Therefore, the location of the Proposed Project reduces potential energy consumption to the extent possible.

Incorporation of Renewable Energy: The CCTF would consist of multiple mid- and high-rise buildings not to exceed 400 feet in height. Incorporation of renewable energy such as solar panels is most appropriate where there are large areas of flat roofs or large areas of open land. Due to the constraints of the Project Site, mid- and high-rise buildings are required to serve the projected inmate-patient population. Because of these constraints, incorporation of renewable energy is not feasible at the Project Site. However, it should be noted that LADWP, which provides electricity to the Project Site is developing an RPS designed to increase the amount of energy it generates from renewable power sources to 20 percent by 2017.

Alternatives: Alternatives to the Proposed Project (See Chapter 7, *Alternatives to the Proposed Project*) have been developed and compared in terms of overall energy consumption and in terms of reducing wasteful, inefficient and unnecessary consumption of energy, as discussed below.

- **No Project/Continued Use of Existing MCJ Facility Alternative:** The existing MCJ facility is served by outdated infrastructure that does not meet the current conservation and efficiency standards. Under this alternative, only minor fixes would be implemented. As compared to the No Project/Continued Use of Existing MCJ Facility Alternative, the Proposed Project would result in increase in electricity and transportation fuel demands but decrease in natural gas demands (See Section 7.4.1). As discussed above, the Proposed Project would not result in wasteful, inefficient and unnecessary consumption of energy.
- **Reduced Capacity CCTF Facility Alternative:** As with the Proposed Project, the LEED Gold equivalent certification would be achieved under this Alternative. It is anticipated that a reduction in project size under this alternative would demand less energy compared to the larger CCTF (See Section 7.4.2). However, as discussed above, the Proposed Project would not result in wasteful, inefficient and unnecessary consumption of energy.
- **Increased Capacity CCTF Facility Alternative:** As with the Proposed Project, the LEED Gold equivalent certification would be achieved under this alternative. The increased number of beds would likely demand more energy resources or result in increases in long-term electrical or natural gas consumptions or transportation energy use, as compared to the Proposed Project (See Section 7.4.3). Energy impacts of this alternative are environmentally inferior to the Proposed Project.

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- Alternative Site Location Alternative (Pitchess Detention Center):** As with the Proposed Project, the LEED Gold equivalent certification would be achieved under this alternative. This alternative would result in greater VMT, demanding more transportation energy use, as compared to the Proposed Project (See Section 7.4.4). All other energy sources demand would be similar to the Proposed Project. Energy impacts of this alternative are environmentally inferior to the Proposed Project.

Unavoidable Adverse Effects: Unavoidable adverse effects may include wasteful, inefficient and unnecessary consumption of energy during the project construction, operation, maintenance and/or removal that cannot be feasibly mitigated. As discussed in Chapter 6, *Significant Unavoidable Adverse Impacts*, only one significant unavoidable adverse impact to transportation/traffic has been identified, but adequate mitigation has been developed to reduce that impact to a less than significant level. No significant energy impacts related to the Proposed Project have been identified.

Irreversible Commitment of Resources: Irreversible commitment of resources may include a discussion of how the project preempts future energy development or future energy conservation. The Project Site has been used as jail since the 1960's and was never used for energy production. The Proposed Project represents a replacement project for the existing MCJ and does not represent an irreversible commitment of resources.

Short-Term Gains versus Long-Term Impacts: The Proposed Project would not result in short-term gains through long-term impacts as it relates to consumption of energy. The Proposed Project is new construction which would reduce wasteful energy consumption at the existing MCJ by replacing the existing old electrical, natural gas, water, and wastewater system with improved systems that achieve the current California Building Energy and Efficiency Standards (Title 24, Part 6) and CALGreen standards (Title 24, Part 11). Additionally, RR AIR-8 requires that the Proposed Project be constructed to comply with the County's Energy and Environmental Policy and achieve a minimum of LEED Gold certification.

Growth Inducing Effects: Growth inducing effects may include the estimated energy consumption of growth induced by the Proposed Project. As discussed in Chapter 10, *Growth-Inducing Impacts of the Proposed Project*, the Proposed Project would increase the number of employees at the Project Site but decrease the number of employees at the adjacent TTCF, for a total increase of 50 employees. This would have little effect on new economic investment in commercial uses serving the area in proximity to the Project Site. The Proposed Project's location in downtown Los Angeles will also mitigate any additional need to accommodate local business growth because the area features a diverse range of existing retail and service commercial uses, including restaurants, grocery stores, pharmacies, and banks. Therefore, while the Proposed Project will have a small growth-inducing effect due to the slight increase in employees, this will be accommodated by the surrounding area's current land uses and its ability to absorb local business growth. Therefore, no significant increases in energy consumption related to growth-inducement are anticipated.

9.4.3 Conclusion

Short-Term Construction Impacts

The Proposed Project would not result in wasteful, inefficient, or unnecessary use of energy during construction. Construction equipment will be required to be well maintained and meet the appropriate Tier

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ratings per CALGreen or EPA emissions standards, such that adequate energy efficiency level is achieved. Also, the Proposed Project would minimize energy inefficiency due to CCR Section 2499, which requires that nonessential idling of construction equipment is restricted to five minutes or less (RR AIR-5). Construction trips would not result in unnecessary use of energy since the Project Site is centrally located and is served by numerous regional freeway system (e.g., I-5, I-110, and I-10) that provides most direct and shortest routes from various areas of the region. Electrical energy would be available for use during construction from existing power lines and connection, avoiding the use of generators that are less efficient than tying into existing LADWP infrastructure. Compliance with Regulatory Requirements RR USS-3 would ensure that the Proposed Project is constructed in accordance with the County's Construction and Demolition Debris Recycling and Reuse Ordinance, which requires a minimum of 65 percent of the "non-hazardous construction and demolition debris" (by weight or volume) to be recycled or reused unless a lower percentage is approved by the County Director of Public Works. The Proposed Project would also be designed, constructed, and operated in accordance with the County's Departmental Recycling Program Directives to implement waste reduction and recycling measures (RR USS-4). Such recycling of construction and demolition wastes would indirectly reduce energy use by future construction projects. Thus, energy use during construction of the Project would not be considered inefficient, wasteful, or unnecessary.

Long-Term Operational Impacts

The Proposed Project would not result in inefficient, wasteful and unnecessary consumption of energy. The Proposed Project is new construction which would reduce wasteful energy consumption at the existing MCJ by replacing the existing old electrical, natural gas, water, and wastewater system with improved systems that achieve the current California Building Energy and Efficiency Standards (Title 24, Part 6) and CALGreen (Title 24, Part 11). The 2016 Building and Energy Efficiency Standards are effective starting on January 1, 2017. The Building Energy and Efficiency Standards and CALGreen are updated tri-annually with a goal to achieve net zero energy for residential buildings by 2020 and non-residential buildings by 2030. The County's green building standards which implement and exceed CALGreen are identified County Code, Title 31. The County has adopted the Voluntary Tier 1 standards for non-residential construction greater than or equal to 25,000 square feet (Section 301.3.1, Buildings greater than or equal to 25,000 square feet). Additionally, the Proposed Project would be developed in compliance with Project Design Features PDF AIR-1 and Regulatory Requirements RR AIR-1 through RR-AIR 8 that will all work to increase energy efficiency and minimize wasteful energy consumption. Specifically, RR AIR-8 requires that the Proposed Project be constructed to comply with the County's Energy and Environmental Policy and achieve a minimum of LEED Gold certification. Accordingly, the operation of the Proposed Project would not result in a significant inefficient, wasteful and unnecessary consumption of energy.

9.5 REFERENCES

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