

1. INTRODUCTION

This section discusses energy resources within the Project area. This section also analyzes the ability of the Los Angeles Department of Water and Power (LADWP) and the Southern California Gas Company (Gas Company) to meet the proposed Project's energy demands.

2. METHODOLOGY

Sources of information used to describe existing and future energy resources include the LADWP Web site, the Gas Company Web site, and the *Los Angeles General Plan*. Potential Project impacts were analyzed primarily through consultation with LADWP and the Gas Company.

3. REGULATORY FRAMEWORK

State

As a public utility, the Gas Company is under the jurisdiction of the California Public Utilities Commission (CPUC). The Gas Company provides service in accordance with their policies and extension rules on file with the Commission.

State Building Energy Efficiency Standards

Energy and natural gas consumption by new buildings in California is regulated by the State Building Energy Efficiency Standards (Efficiency Standards), contained in Title 24 of the California Code of Regulations. The Efficiency Standards apply to new construction of both residential and non-residential buildings and regulate energy consumed for heating, cooling, ventilation, water heating, and lighting. The building Efficiency Standards are enforced through the local building permit process. Local government agencies may adopt and enforce energy standards for new buildings meeting or exceeding those provided in the Efficiency Standards.

California Public Utilities Commission (

The CPUC regulates, among other utilities, investor-owned electric power and natural gas utilities in the State of California. The CPUC is responsible for regulating rates, protecting against fraud, and promoting the health of California's economy. Additionally, the CPUC has advisory, strategic planning, and enforcement units devoted to the state's "energy future."

The CPUC, with support from the Governor’s Office, the California Energy Commission (CEC), the California Air Resources Board (CARB), the state’s utilities, local government, and others, has adopted the California Long-Term Energy Efficiency Strategic Plan (CLTESP). The CLTESP was developed in recognition of the relationship between energy efficiency, energy, and climate change, and in response to the need to “scale up statewide energy efficiency efforts to meet today’s urgent energy challenges.”¹ Released in September 2008, the CLTESP sets forth a statewide “roadmap” intended to maximize achievement of cost-effective energy efficiency in California’s electricity and natural gas sectors between 2009 and 2020, and beyond. The plan identifies four primary energy markets, or end users, in California residential, commercial, industrial and agricultural and makes recommendations for coordinated action concerning energy efficiency strategies between the state, its utilities, the private sector, and other market players.

California Air Resources Board

On October 24, 2008, CARB staff released a draft, proposal for determining a project’s significance with respect to global climate change (GCC) under the California Environmental Quality Act (CEQA). While the proposal is focused on helping lead agencies determine under which conditions a project may be found exempt from the preparation of an environmental impact report (EIR), the proposal also provides guidance for establishing significance thresholds for projects for which EIRs would be prepared regardless of the project’s climate change impact. According to this proposal, the threshold for determining whether a project’s GCC impacts are significant is partly based on stringent performance-based thresholds required to meet the goals of Assembly Bill (AB) 32 (Nuñez and Pavley), the California Global Warming Solutions Act, signed into law in September 2006. AB 32 represents the first enforceable statewide program to limit greenhouse gas (GHG) emissions from all major industries with penalties for noncompliance. CARB is responsible for carrying out and developing the programs and requirements necessary to achieve the goals of AB 32, which target the reduction of California’s GHG emissions to 1990 levels by 2020. AB 32 is further discussed in **Section IV.B, Air Quality**.

If a project meets certain specific, yet-to-be-developed performance standards for several categories of GHG emissions, including construction, building energy usage, water usage, solid waste generation, and transportation, and the project emits no more than a certain yet-to-be-determined amount of metric tons of carbon equivalents per year, the project’s GHG impact would not be considered significant. According to CARB, the CEC Tier II building energy use standards contained in the guidelines for Senate Bill (SB) 1

¹ California Public Utilities Commission (CPUC), *California Long-Term Energy Efficiency Strategic Plan*, “Executive Summary [1],” <http://www.cpuc.ca.gov/PUC/energy/electric/Energy+Efficiency/EE+General+Info/eesp.htm>, 2008.

(Murray) are proposed to be used, which generally require a reduction in energy usage of 15 to 30 percent beyond Title 24 building code requirements.

SB 1, also known as the Million Solar Roofs Bill, was signed into law in August 2006. SB 1 requires the CEC to establish eligibility criteria, conditions for incentives, and rating standards for projects applying for ratepayer-funded incentives to install solar energy systems. For building permits submitted on or after July 1, 2009, the applicant is required to achieve one of two tiers of energy efficiency. Tier I represents compliance with the energy efficiency requirements of the California Green Building Standards (Title 24, Part 11) while Tier II represents energy efficiency best practices to align with the Integrated Energy Policy Report (IEPR)² and the CPUC Strategic Plan initiatives.

- Tier I – 15 percent reduction in the residential building’s combined space heating, space cooling and water heating energy from the 2008 Title 24 Standards.
- Tier II – 30 percent reduction in the residential building’s combined space heating, space cooling and water heating energy and 30 percent reduction in the residential building’s space cooling energy from the 2008 Title 24 Standards.

The Tier I level is a minimum condition for participation. Tier II is the CEC’s preferred level that builders are encouraged to meet. The SCAQMD released, in October 2008, “Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold,” which, among other things, recommended a screening level of 3,000 million metric tons of carbon dioxide equivalents (MMT_{CO2E}) per year for residential and commercial projects and 10,000 MMT_{CO2E} for industrial projects. In December 2008, the SCAQMD Governing Board adopted the threshold for industrial projects where the SCAQMD is the lead agency. Recommended thresholds for residential and commercial projects have been deferred pending the status of CARB’s proposed thresholds. Project GHG emissions are discussed in more detail in **Section IV.B, Air Quality**.

Local

City of Los Angeles General Plan

The City’s General Plan contains three policies for the conservation of fossil fuels.³ The first policy is to encourage energy conservation and petroleum product reuse through three categories: (1) public information and energy conservation incentives programs, (2) petroleum products recycling, and

² The Warren-Alquist Act (Division 15 of the Public Resources Code) created and gives statutory authority to the CEC and designates the CEC as the state’s primary agency for energy policy and planning. Senate Bill 1389 (SB 1389, Bowen and Sher) requires that the CEC adopt and transmit to the Governor and Legislature a report of findings with respect to energy policy and planning every two years.

³ City of Los Angeles, *General Plan*, “Conservation Element,” p. II-64.

(3) alternative fuel and energy sources research and use. The second and third policies are associated with oil drilling activities. Policy two supports state and federal bans on oil drilling in Santa Monica Bay and new drilling along the California coast, and policy three encourages the protection of neighborhoods from the potential hazards associated with drilling, extraction, and transport.

In addition, the City of Los Angeles General Plan Framework Element also provides power management options. The Framework discusses the phenomena of the “urban heat island effect,” which is largely caused by the concentration of buildings and paved surfaces in urban areas. Bare landscapes, heat generating cars and machines, and pollutants also contribute to the urban heat island effect. The increase in temperatures in urban areas caused by the “urban heat island effect” results in a greater number of days when air quality is unhealthy or worse.

Better management of the urban forest can offset these effects considerably. Trees reduce the demand for air conditioning. Properly planted trees can reduced energy used for cooling in individual buildings and can block up to 95 percent of the incoming radiation.

LADWP Electricity Programs

On the demand side, LADWP offers a number of Energy Efficiency (EE) and Demand-Side Management (DSM) programs to encourage residential, commercial, institutional, and industrial customers to implement energy efficiency technologies and strategies.

The LADWP provides several programs for residents and nonresidents of Los Angeles to help conserve energy. Programs for residents of Los Angeles include Consumer Rebate Programs, a Refrigerator Turn-In and Recycling Program, Ultra-Low-Flush Toilet Programs, High-Efficiency Clothes Washer Rebate Program, Trees for a Green LA Program, Green Power Program, Project ANGEL, Outdoor Area Lighting Program, Solar Power Incentives, Power Quality Consulting Programs, and Electric Vehicle Programs.

Programs for non-residents of Los Angeles include Commercial Lighting Efficiency Offer (CLEO), Heating, Ventilation and Air Conditioning (HVAC) Rebate Program, Customer Generation Rebate, Technical Assistance Program, Ultra-Low-Flush Toilet Rebate for Commercial Customers, Premium Efficiency Motors (PEM) Program, Chiller Efficiency Program, Non-Residential Trees for a Green LA Program, Energy Load Monitoring (ELM) Program, Financing Programs, Outdoor area Lighting Programs, Power Quality Consulting Program, Green Power Program, Project ANGEL, and Solar Power Incentives.

On the supply side, LADWP is developing a Renewable Portfolio Standard (RPS) designed to increase the percentage of energy it generates from renewable sources to 20 percent of its energy sales to retail customers by 2017, with an interim goal of 13 percent by 2010.⁴ The RPS provides a long-term framework to achieve the 20 percent goal without compromising power reliability or the financial stability of the LADWP and its customers.

The Gas Company Programs

The Gas Company provides several programs and information on conservation for both residential and commercial developments. Residential programs include the Home Energy Efficiency Rebate Program and the Home Energy Upgrade Financing Program. The Gas Company Web site (www.socalgas.com) lists links to other energy efficiency programs, including the California Energy Efficiency Program, Flex Your Power Energy Efficiency Program, and Energy Star Program.

4. EXISTING CONDITIONS

a. Electricity

Supply/Demand

The LADWP provides electrical services and facilities within the City of Los Angeles and in the vicinity of the Project site. The LADWP currently serves 3.8 million residents with 1.4 million electric service connections in the greater Los Angeles area. The LADWP supplies more than 22 million megawatt hours of electricity a year. On average, residences use about 5,000 kilowatt-hours (kwh) of electricity per year. Residences constitute the largest number of customers, but businesses and industry within the City of Los Angeles consume about 70 percent of the electricity provided. In addition to serving these consumers, the LADWP lights public streets and highways, powers the City's water system, and sells electricity to other utilities.⁵

The LADWP has indicated that there are no electric service problems or deficiencies in the Project area.⁶ Moreover, the LADWP approved the Integrated Resource Plan (IRP) in 2000, which authorized investment to finance 2,400 megawatts (MW) of in-basin power generation repowering, including new combustion turbines, development of new renewable energy resources, and energy-efficiency programs.

⁴ City of Los Angeles Department of Water and Power, "Renewable Energy Policy," <http://www.ladwp.com/ladwp/cms/ladwp005864.jsp>

⁵ Los Angeles Department of Water and Power, "Power Past & Present," <http://www.ladwp.com/ladwp/cms/ladwp001978.jsp>. 2007.

⁶ Charles C. Holloway, Manager of Environmental Assessment, Los Angeles Department of Water and Power, letter to Impact Sciences, Inc. November 6, 2007. Provided in **Appendix IV.L**.

To improve power system reliability, the LADWP has continued its program to replace transformers at receiving and distributing stations throughout its network. Another LADWP program involves the replacement of aging underground cable throughout the City. The Project's goal is to replace 40 miles of 34.5-kilovolt (kV) and 4.8-kV cable per year for a five-year period. LADWP installed a new Computerized Maintenance Management System (CMMS) to help identify needed equipment maintenance and spot failure trends, and developed an Electric Trouble System (ETS) to support electric trouble dispatchers in diagnosing the source and location of problems and dispatching repair crews promptly to reduce outage time.⁷

Infrastructure

The closest underground lines that could serve the proposed Project site include a 34.5-kV line that runs adjacent to the site under Adams Boulevard, a 4.8-kV underground line along Figueroa Street, and a 4.8-kV underground line along Adams Boulevard. In addition, there is an overhead 4.8-kV line along the east side of the property. Currently, electricity at the site is consumed by the nighttime lighting in the parking lot.

Electricity Conservation

b. Natural Gas

Supply/Demand

Natural gas is currently supplied and distributed to the City of Los Angeles by the Gas Company, which serves 19.8 million residential and business customers, and operates approximately 95,000 miles of underground transmission, distribution, and service pipelines. The Gas Company serves an area encompassing 20,000 square miles, bounded by the international border with Mexico to the south, the San Gabriel Mountains to the east, the Pacific Ocean to the west, and Visalia and San Luis Obispo to the north.⁸ In addition to purchases from suppliers, the Gas Company owns underground facilities with a storage capacity of about 122.1 billion cubic feet (bcf), enough gas to meet the needs of all its customers for up to 20 weeks.

The demand for natural gas is dependent upon the physical growth rate and temperature changes within a geographic area. According to the Gas Company, the system is flexible and can be modified to meet future growth and demand in the Project area. The availability of natural gas is based upon present

⁷ Los Angeles Department of Water and Power Web page, *Power Past & Present*, <http://www.ladwp.com/ladwp/cms/ladwp001978.jsp>, 2007.

⁸ Southern California Gas Company, *Company Profile*, <http://www.socalgas.com/about/profile/>, 2007.

conditions of gas supply and regulatory policies. As a public utility company, the Gas Company is under the jurisdiction of the California Public Utilities Commission but can also be affected by actions of federal regulatory agencies including the Federal Energy Regulatory Commission. The conditions and availability of gas supply and services are, therefore, dependent on the regulatory actions of these agencies.

In 2006, The Gas Company delivered approximately 2,641 million cubic feet (mcf) of natural gas each day. Deliveries of natural gas to residential customers averaged 678 mcf per day, while deliveries of natural gas used for electricity generation accounted for the highest demand at 769 mcf per day.⁹ Deliveries to other uses (e.g., commercial, industrial) ranged from 21 to 345 mcf per day.¹⁰ The Gas Company also supplies gas to commercial, industrial, wholesale, and international customers. The Gas Company predicts that overall demands for gas within its service area will continue to grow by 0.15 percent annually through 2025.¹¹

Infrastructure

Most of the gas is extracted from on- and off-shore sites in California, the San Juan Basin in New Mexico, the Permian Basin in West Texas, the Rocky Mountains, and western Canada.¹² It is then delivered via high-pressure transmission lines. As the gas is transported to its destination, the pressure is maintained with the assistance of compressors. The gas is then received at a storage field and redistributed through another series of transmission lines. Natural gas is distributed throughout the City by a system of transmission, supply, distribution, and service lines. As the pipeline transitions from one transmission line to a supply line, the pressure of the natural gas is regulated down to the most efficient level of pressure for the customer. The Gas Company has existing facilities and lines in the Project area. No natural gas is currently consumed at the Project site.

5. ENVIRONMENTAL IMPACT ANALYSIS

a. Significance Criteria

In accordance with Appendix F to the *State CEQA Guidelines*, CEQA “requires that EIRs include a discussion of the potential energy impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy.” As no specific thresholds of

⁹ Southern California Gas Company, *2007 California Gas Report Supplement*, p. 25.

¹⁰ *Ibid.*

¹¹ Southern California Gas Company, *2006 California Gas Report*, p. 50

¹² *Ibid.*, p. 61

significance are suggested in Appendix F or G to the *State CEQA Guidelines*, the applicable thresholds of significance are derived from the *L.A. CEQA Thresholds Guide*, which states that the determination of significance for energy use shall be made on a case-by-case basis, considering the following factors:

- ENG-1 The extent to which the project would require new (off-site) energy supply facilities and distribution infrastructure, or capacity-enhancing alterations to existing facilities.
- ENG-2 Whether and when the needed infrastructure was anticipated by adopted plans.
- ENG-3 The degree to which the project design and/or operations incorporate energy conservation measures, particularly, those that go beyond City requirements.

b. Project Impacts

Electricity

Table IV.L.4-1, Projected Electricity Consumption for the Proposed Project, shows the projected annual electricity demand and consumption from the proposed Project. The calculations shown in the table are based on the assumption that all 145 units are occupied. The estimated total electricity consumption by the proposed Project would be approximately 815,843 kwh per year.

**Table IV.L.4-1
Projected Electricity Consumption for the Proposed Project**

Proposed Use	Size	Consumption Factors	Total Consumption per Year
Residences	145 dwelling units	5,626.50 kwh/unit/year	815,843 kwh

Source: CEQA Air Quality Handbook, November 1993, A9-11-A, Electricity Usage Rate.

- ENG-1 Impacts related to energy would be significant based on the extent to which the project would require new (off-site) energy supply facilities and distribution infrastructure, or capacity-enhancing alterations to existing facilities.
- ENG-2 Impacts related to energy would be significant based on whether and when the needed infrastructure was anticipated by adopted plans.

Generally, LADWP power service systems are flexible and can be readily altered to meet demand requirements. Electrical service to the Project site would be provided in accordance with LADWP rules

and regulations, and initial installation is not anticipated to disrupt supply to existing uses in the Project area. The proposed Project is consistent with planning and growth projections for both the South Los Angeles Community Plan Area and the greater Los Angeles area, which is discussed in greater detail in **Section IV.I, Population and Housing**. The LADWP has determined that the LADWP can supply the Project's needs.¹³ **Mitigation Measure MM-ENG-1**, which requires that Project design comply with applicable sections of the state Building Energy Efficiency Standards, contained in Title 24 of the California Code of Regulations, and **Mitigation Measure MM-ENG-2**, which requires that the Applicant consult with the LADWP regarding energy efficiency measures will reduce potentially significant impacts associated with energy consumption to less than significant levels.

Additionally, electrical service to the site would be provided in accordance with LADWP rules and regulations. The proposed project involves urban infill development where there is already infrastructure to connect the project. Project development would not involve substantial infrastructure beyond that already in place.

The LADWP has determined that the distribution system is adequate to supply the Project's needs.¹⁴ The LADWP has stated that connections and any necessary infrastructure improvements to serve the Project would be made after review of the applicant's electrical drawings and load schedules.¹⁵ If any infrastructure improvements need to be made, charges for any work beyond the usual scope of providing electric service would be paid for by the applicant before construction begins.¹⁶ Additionally, the LADWP has indicated that the Project applicant may be financially responsible for some of infrastructure improvements necessary to serve the Project.

Electrical infrastructure currently exists throughout the Project area; however, LADWP has indicated that the Project could require an on-site transformer and it may be necessary to consolidate existing on-site electrical facilities and supply all new and existing loads from a common supply.¹⁷ Absent mitigation, the impact would be potentially significant. With implementation of **Mitigation Measure MM-ENG-3**, which requires that the applicant consult with the LADWP prior to submittal of final plans regarding infrastructure, potential impacts related to electricity infrastructure and facilities would be mitigated to less than significant levels.

¹³ Holloway, personal communication, November 6, 2007.

¹⁴ Ibid.

¹⁵ Ibid.

¹⁶ Erica Blyther, MS, REHS Environmental Specialist, Los Angeles Department of Water and Power, e-mail communication to Impact Sciences, Inc., February 7, 2008. Provided in **Appendix IV.L.4**.

¹⁷ Holloway, personal communication, November 6, 2007.

ENG-3 Impacts related to energy would be significant based on the degree to which the project design and/or operations incorporate energy conservation measures, particularly, those that go beyond City requirements.

Prior to issuance of each building permit, the Project applicant would be required to submit plans to the City's Building and Safety Department demonstrating that the Project building complies with the state Energy Conservation Standards for New Residential Buildings (Title 24, part 6, Article 2, California Administrative Code). In addition, the applicant would consult with LADWP's Energy Solutions Group regarding possible energy-efficiency measures. The Energy Solutions Group encourages customers to consider design alternatives to maximize the efficiency of building envelopes, heating, ventilation, and air conditioning, lighting, water heating, and mechanical systems. The Project would implement design features to reduce energy consumption. Examples of these features include

- use high-efficiency (e.g., fluorescent) building-provided lighting;
- place the parking inside and underground;
- choose light-colored roof material; and
- maximize the use of natural lighting and ventilation.

Absent mitigation measures, impacts would be potentially significant. With implementation of Project design features, listed above and in **Section II, Project Description**, to reduce energy consumption, and implementation of **MM-ENG-1** and **MM-ENG-2**, the impact related to electricity consumption would be reduced to a less than significant level.

Natural Gas

Table IV.L.4-2, Projected Natural Gas Consumption for the Proposed Project, shows the projected annual natural gas demand and consumption from the proposed uses on the Project site. The calculations shown in the table are based on the assumption that all 145 units are occupied, and that the primary use of gas will be for indoor space heating, food preparation, and water heaters.

**Table IV.L.4-2
Projected Natural Gas Consumption for the Proposed Project**

Proposed Use	Size	Consumption Factor	Monthly Demand (cubic feet)	Total Consumption per Year (cubic feet/year)
Multifamily	145 du	4,011.5 cubic feet/unit/month	581,667.5	6,980,010

Source: CEQA Air Quality Handbook, November 1993, Table A9-12-A, Natural Gas Usage Rate.
du = dwelling units

ENG-1 Impacts related to energy would be significant based on the extent to which the project would require new (off-site) energy supply facilities and distribution infrastructure, or capacity-enhancing alterations to existing facilities.

ENG-2 Impacts related to energy would be significant based on whether and when the needed infrastructure was anticipated by adopted plans.

The 2006 California Gas Report provides estimates of projected supply and demand within the Gas Company service area over the 2006 to 2025 planning horizon.¹⁸ In 2006, total residential uses accounted for 678 mcf per day, while residential gas demand in 2025 is projected to be 765 mcf per day.^{19,20} This represents a demand increase of 87 mcf per day, or 31,755 mcf per year. Project demand would result in an additional 6.98 mcf per year, which represents less than 0.001 percent of the projected increase during the 2005 to 2025 planning period. The Gas Report notes that the Gas Company has sufficient gas supplies planned to accommodate the increase in gas demand by all of its market sectors, including new residential, commercial, industrial, electric generation, and natural gas vehicle uses. Therefore, the Gas Company has adequate supply to serve the Project in addition to its existing commitments and the Project would not result in a substantial increase in energy demand relative to the availability of supply. Absent mitigation measures, impacts could be considered potentially significant. **Mitigation Measure MM-ENG-1**, which requires that Project design comply with applicable sections of the state Building Energy Efficiency Standards, contained in Title 24 of the California Code of Regulations, and **Mitigation Measure MM-ENG-4**, which requires that the Applicant consult with the Gas Company regarding

¹⁸ SCGC, *California Gas Report 2006*, http://www.socalgas.com/regulatory/docs/2006_CGR.pdf, 2008.

¹⁹ SCGC, *California Gas Report 2007 Supplement*, http://www.socalgas.com/regulatory/docs/2007_CGR.pdf, 2008.

²⁰ SCGC, *California Gas Report 2006*, 2008.

energy efficiency measures will reduce potentially significant impacts associated with energy consumption to less than significant levels.

Gas infrastructure currently exists throughout the Project area. To fully assess and determine required improvements to the natural gas service infrastructure, the Gas Company is working with the Project Applicant to determine what infrastructure improvements are required to provide adequate gas service to the Project site.²¹ Any gas facility additions would be in accordance with the Gas Company's policies and extension rules on file with the California Public Utilities Commission at the time contractual arrangements are made.²² The Gas Company anticipates that its existing system has sufficient capacity to provide the flows required by the Project. The Project may require minor upgrades or extensions since the site is not currently served with natural gas, however, the Project would not induce upgrades to storage, transmission lines or distribution facilities beyond those that are already planned as part of the overall growth in demand. Absent mitigation measures, the impact related to the need for improvements to infrastructure could be considered potentially significant. With implementation of **Mitigation Measure MM-ENG-5**, which requires that the applicant consult with the Gas Company regarding improvements to existing infrastructure, potential impacts related to natural gas infrastructure and facilities would be mitigated to less than significant levels. The proposed Project is consistent with planning and growth projections for both the South Los Angeles Community Plan Area and the greater Los Angeles area. For these reasons, impacts related to existing natural gas infrastructure and facilities would be less than significant after mitigation.

ENG-3 Impacts related to energy would be significant based on the degree to which the project design and/or operations incorporate energy conservation measures, particularly, those that go beyond City requirements.

Prior to issuance of each building permit, the Project applicant would be required to submit plans to the City's Building and Safety Department demonstrating that the proposed Project complies with the State Energy Conservation Standards for New Residential Buildings (Title 24, part 6, Article 2, California Administrative Code.

As discussed in **Section II, Project Description**, in **Subsection 8, Project Design Features**, the Project Applicant has committed to implementing project design features consistent with third-party green building standards such as the Green Building Program or the GreenPoint Rated program from the California Build It Green membership-supported nonprofit organization. The GreenPoint Rated program

²¹ Phone conversation with Edward Hale, Planning Engineer, The Gas Company, March 26, 2007.

²² Seabron Ross, Pipeline Planning Assistant, Southern California Gas Company, November 19, 2007.

is similar to LEED® certification such that residential units are allocated points based on the inclusion of green building measures in five categories, one of which is energy conservation. To ensure compliance with third-party green building standards, **Mitigation Measure MM-ENG-6** is required. Therefore, given that energy-conserving design features would be incorporated, the impact would be less than significant.

The Project design would implement Project design features to reduce energy consumption. An example includes:

- Place the parking inside and underground (to reduce the Project's contribution to the urban heat island effect).

Absent mitigation measures, impacts would be potentially significant. With implementation of the Project design feature listed above and in **Section II, Project Description**, and required in **Mitigation Measure MM-ENG-6** to reduce energy consumption and by submitting the plans and by consulting with the City's Building and Safety Department and the Gas Company regarding the use of energy efficient equipment, as specified by **Mitigation Measures MM-ENG-2** and **MM-ENG-4**, impacts to natural gas consumption within the service area would be reduced to a less than significant level.

c. Cumulative Impacts

Electricity

Implementation of the proposed Project along with the list of related projects identified in **Section III, General Description of Environmental Setting**, would increase the demand for electrical power. **Table IV.L.4-3, Projected Electricity Consumption for Related Projects**, estimates electricity consumption with buildout of related projects.

As shown, related projects would demand an additional 121,775,804 kwh of electricity per year. Combined, the proposed Project and related projects would demand additional 122,591,647 kwh of electricity per year.

**Table IV.L.4-3
Projected Cumulative Electricity Consumption for Related Projects**

Proposed Use	Size	Consumption Factor	Total Consumption per Year (kwh/year)
Condominiums (du)	6,904	5,626.50 kwh/unit/year	38,845,356
Apartments (du)	4,807	5,626.50 kwh/unit/year	27,046,586
Hotel(sf)	1,880	9.95 kwh/sf/year	18,706
Private School(sf)	7,366	10.5 kwh/sf/year	77,343
Elementary School(sf)	1,875	10.5 kwh/sf/year	19,688
University (sf)	347,000	10.5 kwh/sf/year	5,323,500
Commercial/Retail(sf)	1,204,920	13.55 kwh/sf/year	15,603,714
Restaurant/Dining/Banquet (sf)	391,669	47.45 kwh/sf/year	18,584,694
Wholesale (sf)	490,592	13.55 kwh/sf/year	6,647,522
Medical Office (sf)	31,655	12.95 kwh/sf/year	409,932
Office (sf)	1,198,412	12.95 kwh/sf/year	15,519,435
Health Club (sf)	40,000	10.5 kwh/sf/year	420,000
Subtotal of Related Projects	-	-	121,775,804 kwh/year
Proposed Project			815,843 kwh
Total	-	-	122,591,647 kwh/year

*Source: CEQA Air Quality Handbook, November 1993, Table A9-11-A, "Electricity Usage Rate."
du = dwelling unit; sf = square feet; kwh = kilowatt hours.*

As discussed above, construction and operation of the proposed Project would not result in significant impacts to energy supply, as LADWP has adequate power supplies to meet the anticipated energy demand for the proposed Project. However, the proposed Project in combination with related projects would negatively impact energy supplies due to a large increase in demand and would require the future construction of additional distribution facilities.²³ LADWP has indicated that the construction of a new distribution station may be necessary in order to supply loads to the Project site and surrounding area.²⁴ Distribution stations vary in size and are generally constructed above ground. If and when deemed necessary by LADWP, the department would choose the location for the distribution station and conduct a separate environmental review process prior to construction of the station. The cost of the distribution station would be recovered in the electric rate structure.²⁵

²³ Holloway, personal communication, November 6, 2007.

²⁴ Ibid.

²⁵ Ibid.

As with the proposed Project, each Citywide related project would be required to comply with current building codes, conservation standards, and the energy conservation standards established in Title 24 of the California Administrative Code. Compliance with Title 24 energy standards and other energy conservation programs on the local level would further reduce cumulative energy demands. Additionally, as with the proposed Project, the applicant of each related project would coordinate with LADWP to install any additional facilities necessary to receive electricity service. Therefore, given the consultation with LADWP and the Project's contribution towards the cost of installing new infrastructure the Project's contribution to the cumulative impact related to electricity service within the service area would not be cumulatively considerable and would be less than significant.

Natural Gas

Implementation of the proposed Project, along with the list of related projects identified in **Section III, General Description of Environmental Setting**, would generate an increased monthly demand for natural gas consumption. **Table IV.L.4-4, Projected Natural Gas Consumption for Related Projects**, estimates natural gas consumption with buildout of related projects.

As shown, related projects would demand an additional 1,472,576,338 cubic feet of natural gas per year. Combined, the proposed Project and related projects would demand additional 1,479,556,348 cubic feet of natural gas per year. As discussed earlier, the Gas Company estimates natural gas demand will not increase appreciably over the next 22 years and will reach 988,785 mcf by 2030; it further projects an available natural gas supply of 1,414,375 mcf in the year 2030. The cumulative demand of the proposed and related projects represents 0.1 percent of this supply. Thus, even with the increased cumulative demand attributable to the related projects, the projected supply will be more than adequate. As previously indicated the distribution system in the Project area is flexible and can be modified to provide adequate supply to meet increased demand as a result of cumulative projects. Each related project would also be required to incorporate applicable energy conservation features into its design, as well as complying with Title 24 energy efficiency standards. As such, implementation of the proposed Project in combination with related projects would not result in cumulative significant impact to natural gas supplies, and the contribution of the Project to the impact would not be cumulatively considerable.

**Table IV.L.4-4
Projected Natural Gas Consumption for Related Projects**

Proposed Use	Size	Consumption Factor	Total Consumption per Year (cubic feet/year)
Condominiums (du)	6904	4,011.50 cubic feet/unit/month	332,344,752
Apartments (du)	4,807	4,011.50 cubic feet/unit/month	232,599,372
Hotel (sf)	13,925,926	4.8 cubic feet/sf/month	802,133,340
Private Schools (sf)	7,366	2 cubic feet/sf/month	176,784
Elementary School (sf)	1,875	2 cubic feet/sf/month	45,000
University (sf)	347,000	2 cubic feet/sf/month	8,328,000
Commercial/Retail (sf)	1,027,724	2.9 cubic feet/sf/month	35,764,800
Restaurant/Dining/ Banquet (sf)	391,669	2.9 cubic feet/sf/month	13,630,080
Wholesale (sf)	490,592	2.9 cubic feet/sf/month	17,072,602
Medical Office (sf)	31,655	2 cubic feet/sf/month	759,720
Office (sf)	1,198,412	2 cubic feet/sf/month	28,761,888
Health Club (sf)	40,000	2 cubic feet/sf/month	960,000
Subtotal of Related Projects	-	-	1,472,576,338 cubic feet
Proposed Project			6,980,010 cubic feet
Total			1,479,556,348 cubic feet

*Source: CEQA Air Quality Handbook, November 1993, Table A9-12-A, Natural Gas Usage Rate.
du = dwelling unit; sf = square feet*

As discussed above, construction and operation of the proposed Project would not result in significant impacts to the natural gas supply, as the Gas Company has adequate natural gas supplies to meet the anticipated demand for the proposed Project. Furthermore, the Gas Company would make improvements to its system to meet customer obligations, if needed, with funding provided by the individual project applicants when appropriate. Therefore, cumulative impacts to natural gas would be less than significant.

d. Mitigation Measures

Electricity and Natural Gas

MM-ENG-1 Prior to submittal of final plans, the Project applicant shall consult with Los Angeles Department of Water and Power's Energy Solutions Group regarding possible energy efficiency measures.

- MM-ENG-2 Prior to submittal of final plans, the Project applicant shall submit plans to the City's Building and Safety Department for review and approval demonstrating that the building complies with the state Energy Conservation Standards for New Residential Buildings (Title 24, part 6, Article 2, California Administrative Code).
- MM-ENG-3 Prior to submittal of final plans, the Project applicant shall consult with Los Angeles Department of Water and Power to determine the exact specifications for additional facilities supplying electricity to the Project site. Upon finalizing the specifications for electricity infrastructure planned for the Project site, the Project applicant shall fund the cost of infrastructure installation.
- MM-ENG-4 Prior to submittal of final plans, the Project applicant shall consult with the Southern California Gas Company regarding the incorporation of feasible energy conservation measures into the Project design and construction.
- MM-ENG-5 Prior to submittal of final plans, the Project applicant shall incorporate the necessary alterations to the natural gas distribution system as required by the Southern California Gas Company. Upon finalizing the specifications for natural gas infrastructure planned for the Project site, the Project applicant shall fund the cost of infrastructure installation.
- MM-ENG-6 The Project Applicant shall implement energy-conserving project design features consistent with third-party green building standards such as the Green Building Program or the GreenPoint Rated program from the California Build It Green membership-supported nonprofit organization.

e. Adverse Effects

With implementation of **Mitigation Measures MM-ENG-1** through **MM-ENG-6**, no adverse impacts associated with electricity and natural gas service would result from development of the proposed Project.