IV. ENVIRONMENTAL IMPACT ANALYSIS
K. ENERGY CONSERVATION
1. ELECTRICITY

ENVIRONMENTAL SETTING

The Los Angeles Department of Water and Power (DWP) provides electricity service to the City of Los Angeles. The DWP obtains power from numerous sources, including (1) four municipally-owned power plants within the Los Angeles basin, (2) DWP hydrogenerators on the Los Angeles Aqueduct, (3) shared-ownership generating facilities in the southwest United States, and (4) through purchases of power from the Southwest and Pacific Northwest regions of the United States.

The State of California produces 75 percent of the electricity it uses. The remaining electricity is purchased through suppliers from the Pacific Southwest and the Pacific Northwest. One-third of the State's electrical energy is generated by natural gas. Additional electricity is generated through other means, including hydro, nuclear energy, coal, oil, geothermal, waste, wind and solar sources.[1] Currently, 26 percent of DWP energy is generated in the Los Angeles basin at the following generation stations: Haynes Generating Station near Seal Beach; Scattergood Generating Station near Playa del Rey; Valley Generating Station in the San Fernando Valley; and Harbor Generating Station at the Los Angeles Harbor.[2] However, the DWP also purchases excess power, as it is made available, from self-generators interconnected with the DWP within the City. In total, the DWP operates 20 receiving stations and 174 distribution stations to provide electricity to DWP customers, with additional facilities to be acquired as their load increases.

Energy consumption by new buildings in California is regulated by the State Building Energy Efficiency Standards, embodied in Title 24 of the California Code of Regulations (CCR). 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, provided that these standards meet or exceed those provided in Title 24 guidelines. Currently, no electricity is consumed onsite. There are existing 4.8-kV power lines in the project area, but no lines run directly onto the project site.[3]

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1 *California Home Page: www.energy.ca.gov/html/calif_energy_facts.html, April 3, 2003.*

2 *Los Angeles Department of Water and Power, website: www.ladwp.com/power/contenlabel.htm.*

3 *Correspondence from the Los Angeles Department of Water and Power, Charles C. Holloway, Supervisor Environmental Assessment, March 19, 2003.*

ENVIRONMENTAL IMPACTS

Thresholds of Significance

In accordance with Appendix F to the 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 significance for potential energy impacts are suggested in Appendix F or G to the CEQA Guidelines, the following thresholds of significance are derived from the Draft L.A. CEQA Thresholds Guide,[4] which states that the proposed project would result in a significant impact to electricity resources or systems if either of the following would result from project implementation:

- Create a need for new supply facilities, distribution infrastructure, or capacity enhancing alterations to existing facilities; or
- Conflict with adopted energy conservation plans.

Project Impacts

Upon full buildout, the proposed project is anticipated to consume approximately 4,316 kilowatt hours (kwH) per day (see Table IV.K-1). In order to serve the proposed project's electricity needs, existing electrical lines in the project area would need to be extended and upgraded. The DWP has determined that one of their 4.8-kV circuits can be used to connect to the project site. Although the DWP recommends having two points of connection to serve the project site,[5] it identified three locations that could be used to supply electricity service to the project site (i.e., Verdugo Crestline Drive, Inspiration Way and Tranquil Drive).[6] The existing aboveground 4.8-kV power lines would need to be extended approximately 500 feet to connect to the project site.[7]

Under the City Charter, the DWP is obligated to serve the citizens of the City with electricity and, therefore, service would be provided to the project site. The project developer would be responsible for paying connection costs and possibly some or all of the expansion costs. The DWP usually connects new electricity loads without interrupting existing customers. However, if a disruption were to occur, it would be for a short duration, typically less than two hours.[8] The expansion of the

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[4] *City of Los Angeles, Draft L.A. CEQA Thresholds Guide, May 14, 1998.*

[5] *Correspondence from the Los Angeles Department of Water and Power, Charles C. Holloway, Supervisor Environmental Assessment, March 19, 2003..*

[6] *Ibid.*

[7] *Ibid.*

[8] *Ibid.*

electricity distribution system would result in partial or full road closures while installing the lines, as the lines would be installed underground as recommended in the Sunland–Tujunga Community Plan. The road closures would be temporary and would end as soon as utility installation is complete; typically such construction requires less than a week to complete. While electrical connection of the proposed project would entail expansion of distribution infrastructure and capacity-enhancing alterations to existing facilities, these requirements are not expected to create significant impacts to the physical environment for the following reasons:

(1) Any disruption of service would be of a short-term nature, typically lasting a couple of hours;

(2) Extension of electrical lines would be within public rights-of-way; and

(3) The full cost of the proposed connections and the fair share cost of the expansion of the electrical distribution systems would be born by the project developer.

Title 24 of the California Code of Regulations establishes energy conservation standards for new construction, including single-family homes. The proposed project would comply with Title 24 energy conservation standards for insulation, glazing, lighting, shading, and water and space heating systems in new homes.

With modern energy efficient construction materials and compliance with Title 24 standards, the proposed project would be consistent with the City's energy conservation standards and therefore would not conflict with adopted energy conservation plans.

MITIGATION MEASURES

Although the proposed project would not have a significant impact on electricity services, the following mitigation measures are recommended to reduce further the proposed project's impacts:

K.1-1 In the event of full or partial road closures, the project developer shall employ flagmen during the construction of the electrical distribution system to facilitate the flow of traffic.

K.1-2 During the design process, the project developer shall consult with the Los Angeles Department of Water and Power, Efficiency Solutions Business Group, regarding possible energy efficiency measures.

CUMULATIVE IMPACTS

Development of the proposed project in conjunction with the 13 related projects indicated in Figure II-1 in Section II.C (Related Projects) would increase the demand for electricity. As shown in Table IV.K-1, the estimated electricity consumption by the related projects in combination with the proposed project

would be approximately 15,919 kwH per day. However, cumulative impacts are not expected to be significant for the reasons discussed below.

Under the City Charter, the DWP has an obligation to serve the citizens of the City. The largest related project (Related Project No. 9) is located in the unincorporated community of La Crescenta, which receives electricity service from Southern California Edison (SCE). As long as SCE provides electricity service to La Crescenta, the development of Related Project No. 9 would not contribute to the cumulative demand for electricity from the DWP. The remaining related projects are all located within City limits and would be provided electricity service by the DWP.[9] However, these 12 related projects are relatively small and have relatively small projected electricity demands. Furthermore, all of the related projects would be required to comply with Title 24 of the California Code, which establishes energy conservation standards for new construction.

If new electricity supply facilities, distribution infrastructure, or capacity enhancing alterations would be needed with implementation of the related projects, it is expected that the DWP would connect such new electricity loads without interrupting existing customers. New electricity distribution lines would likely be installed underground, as recommended in the Sunland-Tujunga Community Plan.

Therefore, the combined effects of the proposed project and the related projects are expected to result in a less-than-significant cumulative electricity impact.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

The proposed project's impacts on electricity services expansion and supply would be less than significant without mitigation. However, the implementation of the recommended mitigation measures would further reduce the proposed project's impacts.

[9] *Ibid.*

Table IV.K-1
Cumulative Daily Electricity Consumption
Canyon Hills Project

Land Use[a]	Size	Generation Rate (kwH/sf/yr)[b]	Total Daily Electricity Consumption
Proposed Project			
Single-Family Homes	280 DU	5,626.5	4,316
Related Projects			
Fast Food Restaurant	3,050 sf	47.45	397
Convenience Store/Gas Station	7,427 sf	13.55	276
Retail	103,240 sf	13.55	3,833
Church	68,000 sf	10.5	1,956
Auto Repair	31,080 sf	13.55	1,154
Single-Family Homes	135 DU	5,626.5	2,081
YMCA Expansion	7,508 sf	10.5	216
Golf Course	160 acres (13,000 sf clubhouse/ maintenance)	47.45	1,690
		Total Related Projects	*11,603*
		Total Proposed Project	**4,316**
		Cumulative Total	***15,919***

[a] *The related projects are allocated among these land uses.*

[b] *Source: SCAQMD, CEQA Air Quality Handbook, Table A9-11-A, 1993.*

IV. ENVIRONMENTAL IMPACT ANALYSIS
K. ENERGY CONSERVATION
2. NATURAL GAS

ENVIRONMENTAL SETTING

The Southern California Gas Company (SCG) provides natural gas to the City through existing gas mains located under the streets and public right-of-ways. Natural gas service is provided in accordance with the SCG's policies and extension rules on file with the California Public Utilities Commission (PUC) at the time contractual agreements are made.

The State produces about 16 percent of the natural gas it uses. The remaining 84 percent is obtained from sources outside of the State, 46 percent from the Southwest, 28 percent from Canada, and 10 percent from the Rocky Mountain area. In the last 10 years, three new interstate gas pipelines were built to serve California, expanding the over one million miles of existing pipelines.[10] However, the availability of natural gas is based upon present conditions of gas supply and regulatory policies. As a public utility, SCG is under the jurisdiction of the PUC, but can be affected by actions of federal regulatory agencies. Should these agencies take any action, affecting natural gas supply or the conditions under which service is available, natural gas service would be provided in accordance with those revised conditions.

SCG has designed the distribution pipeline system to meet the demand of total buildout in thee project vicinity, including the project site.[11] Natural gas can be provided to the project site by any of the following: a two-inch main in Inspiration Way north of the project site; a three-inch main west of the project site in La Tuna Canyon Road ending approximately 1,800 feet east of Elben Avenue; and a four-inch medium pressure main in La Tuna Canyon ending approximately 450 feet west of Honolulu Avenue. Currently, the project site is undeveloped and does not consume any natural gas.

ENVIRONMENTAL IMPACTS

Thresholds of Significance

In accordance with Appendix F to the 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 significance are suggested in Appendix F or G to the CEQA Guidelines, the applicable thresholds of

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[10] *California Home Page: www.energy.ca.gov/html/calif_energy_facts.html, April 3, 2003.*

[11] *Correspondence from the Southern California Gas Company, Jim Hammel, Technical Services, Northern Region, April 3, 2003.*

significance are derived from the Draft L.A. CEQA Thresholds Guide,[12] which provides that the proposed project would result in a significant impact to natural gas resources or utility systems if either of the following would result from project implementation:

- Create a need for new supply facilities, distribution infrastructure, or capacity enhancing alterations to existing facilities; or
- Would conflict with adopted energy conservation plans.

Project Impacts

Development of the proposed 280 single-family homes would result in a demand for natural gas at the project site. Based on a rate of 6,665 cubic feet of natural gas per square foot per day, the estimated natural gas consumption for the proposed project would be 62,207 cubic feet per day (see Table IV.K-2).[13] SCG has stated that it can accommodate the natural gas needs of the proposed project from existing medium pressure mains and current supply.[14] Natural gas would likely be provided to the project site by providing service extensions from the four-inch medium pressure main in La Tuna Canyon Road at the Interstate 210 interchange. The project developer would be responsible for paying connection costs and possibly some or all of the expansion costs. The SCG has indicated that gas mains and service extensions are generally installed in a joint trench with other dry utilities (e.g., in a public right-of-way). According to SCG, the natural gas service extensions to the project site would be connected "with no (0) disruption to existing customers using hop-tap methods."[15] This installation could result in full or partial road closures. However, the road closures would be temporary and would end as soon as utility installation is complete, which typically requires less than a week. While the extension of natural gas service to the proposed project would include expansion of distribution infrastructure and capacity-enhancing alterations to existing facilities, these requirements are not expected to create significant impacts to the physical environment for the following reasons:

(1) There would be no disruption in service to existing customers;

(2) Extension of natural gas mains would be within public right-of-ways and any required road closures would be for a short period of time; and

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[12] *City of Los Angeles, Draft L.A. CEQA Thresholds Guide, May 14, 1998.*

[13] *Calculated using the South Coast Air Quality Management District CEQA Air Quality Handbook, Table A9-12-A (Natural Gas Usage Rate), 1993.*

[14] *Correspondence from the Southern California Gas Company, Jim Hammel, Technical Services, Northern Region, April 3, 2003.*

[15] *Ibid.*

(3) The full cost of the proposed service extensions and the fair share costs of the expansion of the natural gas distribution systems would be borne by the project developer.

Title 24 of the California Code of Regulations establishes energy conservation standards for new construction, including single-family homes. These standards relate to increased energy conservation standards for insulation, glazing, lighting, shading, and water and space heating systems in new homes. The proposed project would comply with these standards in Title 24 as they relate to the conservation of natural gas. Furthermore, the proposed project would use modern energy-efficient construction materials and otherwise comply with the City's energy conservation standards. Therefore, the proposed project would not conflict with adopted energy conservation plans.

MITIGATION MEASURES

Although the proposed project would not have a significant impact on natural gas services, the following mitigation measures are recommended to reduce further the proposed project's impacts:

K.2-3 Prior to the start of construction, the proposed project's energy engineer shall consult with SCG for an energy analysis regarding efficiency and conservation measures.

K.2-4 The project developer shall hire flagmen to facilitate traffic flow during installation of the natural gas main extensions.

CUMULATIVE IMPACTS

Implementation of the proposed project in conjunction with the 13 related projects indicated in Figure II-1 in Section II.C (Related Projects) would increase the demand for natural gas. The cumulative net increase of natural gas consumption is estimated to be 112,713 cubic feet per day (see Table IV.K-2). SCG has stated that "[d]emand projections by the Gas Company have allowed for the additional gas load generated by this proposal incorporating, as well, the cumulative impact of future proposals in this area."[16] As SCG has indicated that natural gas is available for the proposed project in combination with the related projects, cumulative impacts to natural gas services would be less than significant.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

The proposed project's impacts on natural gas services would be less than significant without mitigation. However, the implementation of the recommended mitigation measures would further reduce the proposed project's impacts.

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[16] *Ibid.*

Table IV.K-2
Cumulative Natural Gas Consumption
Canyon Hills Project

Land Use[a]	Size	Generation Rate (cubic feet/sf/month)[b]	Total Natural Gas Consumption (cubic feet/day)
Proposed Project			
Single-Family Homes	280 DU	6,665	62,207
Related Projects			
Fast Food Restaurant	3,050 sf	2.9	295
Convenience Store/Gas Station	7,427 sf	2.9	718
Retail	103,240 sf	2.9	9,980
Church	68,000 sf	2.0	4,533
Auto Repair	31,080 sf	2.9	3,004
Single-Family Homes	135 DU	6,665	29,993
YMCA Expansion	7,508 sf	2.9	726
Golf Course	160 acres (13,000 sf clubhouse/ maintenance)	2.9	1,257
		Total Related Projects	*50,506*
		Total Proposed Project	**62,207**
		Cumulative Total	***112,713***

[a] *The 13 related projects are summarized into these land uses.*

[b] *Source: SCAQMD, CEQA Air Quality Handbook, Table A9-11-A, 1993.*