

## **O. UTILITIES**

### **1. Energy**

#### **Environmental Setting**

Based on 177,200 square feet of hospital use, 113 units of residential use, 23,110 square feet of service/administration use, and 21,371 square feet of activity/recreational use, the existing structures are estimated to consume a total of 5,013,267 kilowatt hours (KWh) of electricity annually<sup>1</sup>, and 989,153 cubic feet (cf) of natural gas monthly<sup>2</sup>. Electricity is supplied to the project site by the Los Angeles Department of Water and Power (DWP), from a 34.5-kV circuit originating at Receiving Station T (RS-T) located at 6532 Variel Avenue. On-site the existing development is served by an outdoor customer station which has a capacity of 2,500 kVA.<sup>3</sup> Natural gas is supplied by The Gas Company.

#### **Significance Criteria**

Significant impacts on energy conservation would normally occur if: (1) the project's demand for electricity or natural gas cannot be accommodated by the Department of Water and Power (DWP) or The Gas Company; (2) the project results in the need for new generation or distribution systems or substantial modification to existing utility systems serving the project area; or (3) the project would use electricity or natural gas wastefully or in excessive amounts.

#### **Environmental Impacts**

The Proposed Project would consist of the redevelopment of an existing hospital and the development of a retirement community facility, resulting in a net increase of 139,500 square feet of medical use, 269 residential units (with 308 residents), 45,040 square feet of service/administration use, and

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<sup>1</sup> South Coast Air Quality Management District, *CEQA Air Quality Handbook*, April 1993. Table A9-11-A Electricity Usage Rate pg. A9-114. Assumes annual usage rate of 21.7 KWh/square foot of hospital, 5,626.5 KWh/residential units, 10.5 KWh/square foot of service/administration building use, and 13.55 KWh/square foot of activity/recreational building.

<sup>2</sup> South Coast Air Quality Management District, *CEQA Air Quality Handbook*, April 1993. Table A9-12-A Natural Gas Usage Rate, pg. A9-117. Assumes monthly usage rate of 4.87 cf/square foot of hospital, 4,011.5 cf/residential units, 2 cf/square foot of service/administration use, and 2.9 cf/square foot of activity/recreational building.

<sup>3</sup> Charles Hallway, Supervisor, Environmental Assessment, Department of Water and Power. Letter to Terra Ishee, Planning Associates, Inc. July 26, 1999.

21,000 square feet of activity/recreational space at the project site. During project development, short-term energy consumption would result from grading and construction activities. Long-term energy consumption would result from lighting, heating, cooling, food preparation, and vehicle usage.

Construction Energy Use

During project construction, energy would be consumed during site preparation by grading equipment and by the transfer of materials by heavy duty equipment. This equipment would generally be diesel powered and would be used during the site preparation and construction phases. Because the Proposed Project would be developed in distinct phases, it is necessary to assess energy consumption based on a prototypical site preparation bases. The prototypical construction phase is assumed to be on a site covering approximately one third of the project site. Equipment usage is based on an eight-hour workday and estimated site preparation period totaling 30 working days. It was estimated that site preparation would require approximately 153 scraper hours, 60 dozer hours, 180 water truck hours, 30 compactor hours and 2,000 haul truck trips. Total project development fuel consumption is estimated to be 40,304 gallons, as is shown on **Table 42, Construction Equipment Fuel Consumption**, page 194. Construction worker travel to and from the site would consume an unquantifiable amount of fuel during construction.

<b>TABLE 42</b>			
<b>CONSTRUCTION EQUIPMENT FUEL CONSUMPTION</b>			
Equipment Type	Anticipated Hours of Operation	Diesel Fuel Consumption Rate <sup>1</sup> (Gallons/Hour)	Total Gallons
Scraper	153	14.8	2,264
Bulldozer	60	13.0	780
Water Truck	180	6.0	1,080
Compactor	30	6.0	180
Haul Truck <sup>2</sup>	6,000	6.0	36,000
Total:			40,304

<sup>1</sup> City of Los Angeles Department of City Planning, EIR Manual for Private Projects (August, 1975).  
<sup>2</sup> Based on a 3 hour round trip.

Operational Energy Use

Long-term consumption of non-renewable resources would result from heating, cooling, lighting, and other activities anticipated to occur upon completion of the Proposed Project. It is anticipated that the Proposed Project would utilize approximately 10,311,415 KWh of electric energy annually,

resulting in a net annual increase of 5,298,149 KWh of electricity usage on the site. Electric energy would be provided by the Los Angeles Department of Water and Power (DWP), which would service the site from its 34.5-kV distribution system when project construction is completed. The DWP has indicated that due to the size of the Proposed Project, additional on-site facilities may be required.<sup>1</sup> However, this is not considered a substantial modification to the existing utility system. Therefore, project related electrical energy consumption is not anticipated to result in a significant impact.

The Proposed Project would utilize approximately 2,888,827 cf of natural gas monthly, resulting in a net monthly increase of 1,899,674 cf of natural gas usage on the site. The Gas Company would service the site from an existing 3-inch medium pressure main in Park Sorrento. The Gas Company has indicated that no service problems are anticipated with project implementation<sup>2</sup>. As a result, project related electrical energy consumption is not anticipated to result in a significant impact.

Following project implementation, the site is anticipated to generate 3,718 vehicle trips per day. Assuming an average trip length of 10 miles and vehicular fuel consumption of 15 miles per gallon, approximately 2,479 gallons per day, or 904,835 gallons annually, of vehicular fuel would be used by employees and visitors of the facility.

The Proposed Project would result in a less than significant increase in the consumption of non-renewable resources.

## **Cumulative Impacts**

### Construction

Development of most of the related projects would involve grading and the use of heavy machinery. However, grading amounts and the amount of diesel fuel that would be used are unquantifiable.

Implementation of the proposed and related projects would increase energy consumption by approximately 35,098,417 kWh of electric energy annually, as shown on **Table 43, Related Projects Annual Electric Energy Usage**, page 196. Parks are not included on this table—due to their

<sup>1</sup> Charles Halloway, Supervisor, Environmental Assessment, Department of Water and Power. Letter to Terra Ishee, Planning Associates, Inc. July 26, 1999.

<sup>2</sup> Harry Gordon, Technical Services, Northern Region, The Gas Company. Letter to Terra Ishee, Planning Associates, April 9, 1999.

proposed open space nature and lack of major structures, any electricity that would be consumed would be minimal. The cumulative increase in local energy consumption would constitute an incremental increase in the depletion of non-renewable resources. The cumulative projects may necessitate the construction of additional distribution facilities by LADWP in the future.

Implementation of the proposed and related projects would increase natural gas consumption by approximately 20,528,912 cf monthly, as shown on **Table 44, Related Projects Monthly Natural Gas Usage**, page 197. Parks are also not included on this table. The cumulative increase in local natural gas consumption would constitute an incremental increase in the depletion of non-renewable resources.

<b>TABLE 43</b>		
<b>RELATED PROJECTS ANNUAL ELECTRIC ENERGY USAGE<sup>1</sup></b>		
Uses	Annual Usage Rate <sup>2</sup>	Total Usage (kWh/year)
Retail 201,760 square feet	13.55 kWh/sq. ft.	2,733,848
Office 638,000 square feet	12.95 kWh/sq. ft.	8,262,100
Government 50,000 square feet	12.95 kWh/sq. ft.	647,500
Hotel 390 rooms <sup>3</sup>	9.95 kWh/sq. ft.	3,104,400
School 1,146 students <sup>4</sup>	8.2 kWh/sq. ft.	328,902
Multi-Family Residential 728 units	5,626.5 kWh/unit	4,096,092
Single Family Residential 1,736 units	5,626.5 kWh/unit	9,767,604
Retirement Community 148 units	5,626.5 kWh/unit	832,722
Activity/recreational 2,000 square feet	13.55 kWh/sq. ft.	27,100
<b>Total Annual Usage:</b>		<b>29,800,268</b>
<b>Net Project Increase:</b>		<b><u>5,298,149</u></b>
<b>TOTAL CUMULATIVE INCREASE:</b>		<b>35,098,417</b>

<sup>1</sup> For detailed breakdown of related projects, see *Section III.C, Related Projects*, page 25.  
<sup>2</sup> SCAQMD, *CEQA Air Quality Handbook* (April, 1993), Table A9-11-A, pg. A9-114.  
<sup>3</sup> Assumes 800 sq. ft. per room, which accounts for all ancillary uses such as lobby, meeting rooms, etc.  
<sup>4</sup> Assumes 35 sq. ft. per child.

**TABLE 44**  
**RELATED PROJECTS MONTHLY NATURAL GAS USAGE<sup>1</sup>**

Uses	Monthly Usage Rate <sup>2</sup>	Total Usage (kWh/month)
Retail 201,760 square feet	2.9 cf/sq. ft.	585,104
Office 638,000 square feet	2.0 cf/sq. ft.	1,276,000
Government 50,000 square feet	2.0 cf/sq. ft.	100,000
Hotel 390 rooms <sup>3</sup>	4.8 cf/sq. ft.	1,497,600
School 1,146 students <sup>4</sup>	2.0 cf/sq. ft.	80,220
Multi-Family Residential 728 units	4,011.5 cf/unit	2,920,372
Single Family Residential 1,736 units	6,665.0 cf/unit	11,570,440
Retirement Community 148 units	4,011.5 cf/unit	593,702
Activity/recreational 2,000 square feet	2.9 cf/sq. ft.	<u>5,800</u>
<b>Total Monthly Usage:</b>		<b>18,629,238</b>
<b>Net Project Increase:</b>		<b><u>1,899,674</u></b>
<b>TOTAL CUMULATIVE INCREASE:</b>		<b>20,528,912</b>

<sup>1</sup> For detailed breakdown of related projects, see *Section III.C, Related Projects*, page 25.  
<sup>2</sup> SCAQMD, *CEQA Air Quality Handbook* (April, 1993), Table A9-12-A, pg. A9-117.  
<sup>3</sup> Assumes 800 sq. ft. per room, which accounts for all ancillary uses such as lobby, meeting rooms, etc.  
<sup>4</sup> Assumes 35 sq. ft. per child.

The cumulative trip generation of 43,602 vehicle trips per day from the proposed and related projects would result in the consumption of approximately 29,068 gallons of vehicle fuel per day, or 10.6 million gallons annually. Except for the relatively short duration of construction periods when diesel would be used, the use of gasoline as a source of vehicular energy would be associated with project operations. This would also constitute an incremental increase in the depletion of non-renewable resources.

Energy demands of the project and related projects would be accommodated by the suppliers. The proposed and related development are expected to require the installation of additional distribution facilities, resulting in a cumulative significant impact on the energy service system.

### **Mitigation Measures**

- ! The project applicant is required by law to demonstrate compliance with the standards of the Uniform Building Code and Title 24 of the California Administrative Code prior to issuance of a building permit.
- ! Consult with the Los Angeles Department of Water and Power to determine feasible energy conservation features that could be incorporated into the design of the Proposed Project.
- ! Use energy-efficient indoor and outdoor lighting, such as fluorescent lighting indoors and low pressure sodium vapor lighting outdoors. Building designs should make maximum use of natural daytime lighting and should avoid nonessential, ornamental lighting.
- ! Built-in appliances, refrigerators and space-conditioning equipment shall exceed the minimum efficiency levels mandated by the California Code of Regulations.
- ! Ensure that buildings are well-sealed to prevent outside air from infiltrating and increasing interior space-conditioning loads.
- ! A performance check of the installed space-conditioning system shall be completed by the applicant prior to issuance of a certificate of occupancy to ensure that energy efficiency measures incorporated into the project operate as designed.
- ! Design window systems to reduce thermal gain and loss, thus reducing cooling loads during warm weather and heating loads during cool weather.
- ! Use natural ventilation where possible.

### **Impacts After Mitigation**

Development of the Proposed Project would increase consumption of local and regional energy resources. Project construction would result in a net increase of on-site energy consumption by approximately 5,298,149 kWh of electricity, 1,899,674 cf of natural gas, and 904,835 gallons of vehicular fuel annually. These increases would be considered less than significant. The proposed mitigation measures would further reduce any impacts to energy utilities due to the Proposed Project. Therefore there would be no significant energy impact.