

---

---

## IV.L. ENERGY CONSERVATION

---

---

### 1. ELECTRICITY

#### ENVIRONMENTAL SETTING

##### Existing Electricity Supplies and Consumption

The Los Angeles Department of Water and Power (DWP) provides electricity service to the City of Los Angeles. DWP obtains electricity from various generating sources that utilize coal, nuclear, natural gas, hydroelectric, and renewable resources to generate power. The DWP obtains power from numerous sources; (1) four municipally-owned power plants within the Los Angeles Basin, (2) LADWP Hydrogenerators on the Los Angeles Aqueduct, (3) shared-ownership generating facilities in the Southwest, and (4) through purchases of power from the Southwest and Pacific Northwest regions.

The state of California produces 75 percent of the electricity it uses. The remaining electricity is purchased through suppliers from the 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; hydro, nuclear, coal, oil, geothermal, waste, wind and solar sources.<sup>1</sup> Currently, 26% of the 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 Los Angeles Harbor.<sup>2</sup> However, DWP also purchases excess power, as it is made available, from self-generators interconnected with the DWP within the City.<sup>3</sup> 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.<sup>4</sup>

Energy consumption by new buildings in California is regulated by the State Building Energy Efficiency Standards, embodied in Title 24 of the California Administrative Code (also known as 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.

---

<sup>1</sup> California Home Page: [www.energy.ca.gov/html/calif\\_energy\\_facts.html](http://www.energy.ca.gov/html/calif_energy_facts.html), March 8, 2002.

<sup>2</sup> Los Angeles Department of Water and Power, website: [www.ladwp.com/power/contentlabel.htm](http://www.ladwp.com/power/contentlabel.htm).

<sup>3</sup> Correspondence from Los Angeles Department of Water and Power, James Laschober, February 7, 2002.

<sup>4</sup> Correspondence from Los Angeles Department of Water and Power, James Laschober, February 7, 2002.

## ENVIRONMENTAL IMPACTS

### Thresholds of Significance

The proposed project would result in a significant impact to electricity resources or utility systems if either of the following would result from project implementation: (a) a need for new systems, or substantial alterations to local or regional energy facilities or supply; or (b) would conflict with adopted energy conservation plans.

### Project Impacts

Development of the proposed project would increase the demand for electricity consumption in the project area. 4800-volt primary circuits near the project site may serve the power needs of the proposed project.<sup>5</sup> As shown in Table IV.L-1, the estimated net increase in electricity consumption by the proposed project is approximately 956 kilowatt hours per day. The DWP has indicated that there are no service problems in the project area and that they can accommodate the electricity demands of the proposed project with the existing infrastructure.<sup>6</sup> Additionally, the LADWP generally connects new customers without interrupting existing customers. However, in the event that the power supply is interrupted, the disruption would be for a very short time. Therefore, no significant impacts related to electricity would occur.

**Table IV.L-1**  
**Existing Development and Proposed Project Estimated Electricity Consumption**

Land Use	Size (DU)	Generation Rate (kilowatt hours/unit/year) <sup>a</sup>	Total (kilowatt hours/day)
<b>EXISTING</b>			
Multi-Family Residential (Apartments)	20	5,626.50	308
<b>PROPOSED</b>			
Multi-Family Residential (Townhomes)	25	5,626.50	385
Multi-Family Residential (Flats)	57	5,626.50	879
<i>Proposed Total</i>			<b>1,264</b>
<b>Total Project Net Increase</b>			<b>956</b>
<sup>a</sup> Source: SCAQMD CEQA Handbook, 1993.			

<sup>5</sup> Correspondence, Los Angeles Department of Water and Power, Charles Holloway, Environmental Assessment Supervisor, June 13, 2002.

<sup>6</sup> Correspondence, Los Angeles Department of Water and Power, Charles Holloway, Environmental Assessment Supervisor, June 13, 2002.

## CUMULATIVE IMPACTS

Implementation of the proposed project in conjunction with related projects would further increase demands for electricity consumption. The total electricity consumption by the proposed and related projects within the DWP service area, shown in Table IV.L-2, would be 9,798 kilowatts per day. The proposed project's estimated electricity consumption would account for 13 percent of the cumulative total. If required, mitigation measures for the related developments would also reduce cumulative electricity consumption, as would compliance with Title 24 of the California Administrative Code. Cumulative impacts to electricity service would be less than significant.

**Table IV.L-2**  
**Proposed Project and Related Projects Electricity Consumption**

Land Use	Size	Generation Rate (kilowatt hours/unit/year) <sup>a</sup>	Total (kilowatt hours/day)
<b>PROPOSED</b>			
Multi-Family Residential (Townhomes)	25 du	5,626.50	308
Multi-Family Residential (Flats)	57 du	5,626.50	385
<b>RELATED PROJECTS</b>			
Museum	235,000	10.50	6,760
Beach Club	38,666	10.50	1,112
Single-Family Dwelling Units	6 du	5,626.50	92
Multi-Family Condos	37 du	5,626.50	570
<i>Related Projects Total</i>			<b>8,534</b>
<i>Proposed Total</i>			<b>1,264</b>
<b>Cumulative Total</b>			<b>9,798</b>
<sup>a</sup> Source: SCAQMD CEQA Handbook, 1993.			

## MITIGATION MEASURES

The proposed project would not result in any significant electricity impacts; therefore no mitigation measures are required. However, the following recommendations are suggested in order to reduce long-term electricity consumption by the proposed project:

- The applicant should consult with DWP during the design process of the proposed project regarding potential energy conservation measures for the project. Examples of such energy conservation measures include:

- Design windows (i.e., tinting, double pane glass, etc.) to reduce thermal gain and loss and thus cooling loads during warm weather, and heating loads during cool weather.
- Install thermal insulation in walls and ceilings that meets or exceeds the requirements of the State Administrative Code Title 24.
- Install high-efficiency lamps for outdoor security lighting.
- Time control exterior lighting. These systems should be programmed to account for variations in seasonal daylight times.
- Limit outdoor lighting while still maintaining minimum security and safety standards.
- Built-in appliances, refrigerators, and space-conditioning equipment should exceed the minimum efficiency levels mandated in the California Code of Regulations.
- Use natural ventilation wherever possible.

#### **LEVEL OF SIGNIFICANCE AFTER MITIGATION**

Project impacts on electricity service would be less than significant.