

IV. Environmental Impact Analysis

E. Energy Conservation

1. Electricity

a. Environmental Setting

(1) Existing Conditions

The Los Angeles Department of Water and Power (“LADWP”) provides electricity service to approximately 4 million people in the City of Los Angeles. Its service area covers roughly 465 square miles encompassing Los Angeles and many areas of the Owens Valley.¹ LADWP obtains electricity from various generating sources that utilize coal, nuclear, natural gas, hydroelectric, and renewable resources (solar and wind) to generate power. LADWP’s all time peak demand was 6,142 megawatts (“MW”) which occurred in September 2010, and its system has an installed generation capacity of 7,125 MW.² Its service territory covers the City of Los Angeles and many areas of Owens Valley, with annual sales exceeding 23 million MW-hours (“MWh”).³ LADWP obtains power for the City of Los Angeles from the following sources: four municipally owned power plants within the Los Angeles Basin, LADWP Hydro-Generators in the Los Angeles Aqueduct, shared-ownership generating facilities in the Southwest, and purchased power from the Southwest and Pacific Northwest. LADWP plans to increase its renewable resource portfolio from the current 20 percent to as much as 35 percent by 2020.⁴

¹ *City of Los Angeles Department of Water and Power, About LADWP, Our Service and History, LADWP Quick Facts and Figures*, <http://ladwp.com/ladwp/cms/ladwp000509.jsp>, accessed May 18, 2011.

² *City of Los Angeles Department of Water and Power, Final 2010 Integrated Resource Plan, December 2010*, p.1-8, available online: <http://www.lapowerplan.org/project-documents>, accessed May 18, 2011.

³ *Ibid.*

⁴ *Ibid.*, p.1-12.

(a) Electricity Supplies

(i) Basin Power Generation

LADWP generates electricity in the Los Angeles Basin at four natural gas generation stations: Haynes Generating Station near Seal Beach, Scattergood Generation Station near Playa del Rey, Valley Generating Station in the San Fernando Valley, and Harbor Generating Station at Los Angeles Harbor. Based on recommendations from the 2000 Integrated Resources Plan (“IRP”), six peaking combustion turbine units were installed in 2001. Additionally, six generating units in two generating plants were repowered and replaced with two combined cycle units.⁵ Currently, approximately 26 percent of LADWP’s power supply is generated by natural gas.⁶

(ii) Coal Power Generation

LADWP supplements its natural gas-generated power with power from coal generation plants at the Navajo Generating Station in Arizona and Intermountain Generating Station in west-central Utah.⁷ Currently, approximately 44 percent of LADWP’s power supply is generated by coal.⁸

(iii) Nuclear Power Generation

LADWP additionally obtains power for the City of Los Angeles with power purchases from the Palo Verde Nuclear Generation Station located approximately 50 miles west of Phoenix in Tonopah, Arizona.⁹ Currently, approximately 9 percent of LADWP’s power supply is generated by nuclear power.¹⁰

(iv) Hydro Power Generation

LADWP obtains power for the City of Los Angeles from renewable “small hydro” sources including: the Owens Gorge, the Owens Valley, and several Los Angeles Aqueduct hydroelectric plants. Other larger LADWP hydroelectric generation locations include Castaic Pumped Storage Power Plant and an entitlement of a portion of the power

⁵ *Ibid*, p. ES-6.

⁶ *LADWP Quick Facts and Figures, op. cit.*

⁷ *Final 2010 Integrated Resource Plan, op. cit., p. 1-16.*

⁸ *LADWP Quick Facts and Figures, op. cit.*

⁹ *Final 2010 Integrated Resource Plan, op. cit., p. 2-22.*

¹⁰ *LADWP Quick Facts and Figures, op. cit.*

generated at Hoover Dam from the Hoover Power Plant.¹¹ Currently, approximately 7 percent of LADWP's power supply is generated by hydroelectric sources.¹²

(v) Renewable Resources Power Generation

In addition to the power generated by the "small hydro" sources mentioned above, which comprise 28 percent of LADWP's renewable resources portfolio, other LADWP renewable resources include wind resources (44 percent), biogas (22 percent), solar (1 percent), and market purchases including geothermal (5 percent). As of 2010, approximately 20 percent of LADWP's power supply is generated by this array of renewable energy resources.¹³

(vi) Other Power Sources

LADWP also obtains extra power from purchases of excess power generated by self-generators interconnected with the Los Angeles Power Grid.

(b) Electricity Distribution System

In total, LADWP operates 20 receiving stations and 174 distribution stations to provide electricity to its customers. The power supplied to the customers of LADWP is distributed through a network of approximately 3,655 miles of transmission lines, 8,789 miles of overhead distribution lines, and 2,242 miles of underground distribution lines.¹⁴

LADWP owns and operates an extensive network of Alternating Current ("AC") and Direct Current ("DC") transmission lines. Its internal grid is made up of a major network of 115 kilovolt ("Kv"), 138 kV, and 230 kV overhead and underground AC transmission lines.¹⁵ The Project Site is served by the existing LADWP electrical system, which in the immediate vicinity includes both 34.5 kV underground circuits and 4.8 kV underground circuits in

¹¹ *Final 2010 Integrated Resource Plan, op. cit., p. 2-22.*

¹² *LADWP Quick Facts and Figures, op. cit.*

¹³ *Final 2010 Integrated Resource Plan, op. cit., p. 2-25.*

¹⁴ *Ibid.*

¹⁵ *Final 2010 Integrated Resource Plan, op. cit., p. 1-1.*

Constellation Boulevard and both 34.5 kV underground circuits and 4.8 kV underground circuits in Avenue of the Stars.¹⁶

(c) On-Site Electricity Consumption

At present, the existing uses on the Project Site consume approximately 20,844 kilowatt-hours (“kWh”) of electricity per day (see Table IV.E-1, Existing Uses Electricity Consumption, on page IV.E-5).

(2) Regulatory Framework

(a) California Energy Regulations

Energy consumption by new buildings in California is regulated by the State Building Energy Efficiency Standards, embodied in Title 24 of California Code of Regulations (“CCR”) (the “Title 24 Building Code”). The efficiency standards apply to both the new construction and rehabilitation 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 these standards meet or exceed those provided in Title 24 Building Code.

The California Energy Commission’s 2008 Building Energy Efficiency Standards provides the regulations and standards to implement the Title 24 Building Code. Section 149 of the 2008 Building Energy Efficiency Standards provides regulations for the addition, alteration, and repair of non-residential, high-rise residential, and hotel/motel structures. Specifically, alterations to these structures shall comply with either a prescriptive approach or a performance approach to energy-efficient building design. The prescriptive approach focuses on ensuring that all altered or replaced components of the structure, including the building envelope, meet Title 24 Building Code energy efficiency standards. In comparison, the performance approach focuses on ensuring the altered structure consumes no more energy from depletable sources than the existing structure. Under the both approaches, the altered envelope, space conditioning, lighting and water heating components, and newly installed equipment shall meet all applicable Title 24 Building Code energy efficiency standards. New additions to these existing structures are required to comply with the Title 24 Building Code energy efficiency standards for new construction.

¹⁶ Letter correspondence from Charles Holloway, Manager of Environmental Assessment, LADWP, February 6, 2009. Locations confirmed by phone correspondence with Hal Messinger, LADWP, July 8, 2010.

**Table IV.E-1
Existing Uses Electricity Consumption**

Land Use	Size	Consumption Rate	Total (kWh/day)	Total (kWh/year)
Hotel Guestrooms	392,820 sf	9.95 kWh/sf/year	10,708	3,908,559
Meeting/Ballroom Space ^a	84,275 sf	10.50 kWh/sf/year	2,424	884,888
Restaurant	9,179 sf	47.45 kWh/sf/year	1,193	435,544
Retail	1,937 sf	13.55 kWh/sf/year	72	26,246
Fitness/Spa ^a	31,835 sf	10.50 kWh/sf/year	916	334,268
Lobby/Reception ^a	7,503 sf	10.50 kWh/sf/year	216	78,782
Support Space ^{a,b}	184,735 sf	10.50 kWh /sf/year	5,314	1,939,718
Total			20,844	7,608,005

*sf = square feet
kWh = kilowatt-hour
All calculations rounded to the nearest whole number.*

^a *No rate exists for these uses so the miscellaneous rate was utilized.*

^b *Includes back of house, circulation, hotel administration, and restroom/dressing room areas.*

Source (consumption rates): SCAQMD, CEQA Air Quality Handbook, Table A9-11-A, 1993.

Source (calculations): Matrix Environmental, 2010.

The extent to which the Title 24 Building Code energy efficiency standards apply to historical buildings is governed by the State Historic Building Code (“SHBC”). The intent of the SHBC is to protect California’s architectural heritage by recognizing the unique construction challenges inherent in historic buildings and by providing a code to deal with these issues. For this reason, Section 100(a) of the Title 24 Building Code, Part 6, which states what building occupancy groups are covered by the Title 24 Building Code, contains the following exception: “Exception 1 to Section 100(a): Qualified historic buildings, as defined in the State Historic Building Code (Title 24 Building Code, Part 8).” This is a blanket exemption, and the only exception is for lighting fixtures, which are required under the California Energy Code to comply with energy requirements unless they are historic light fixtures or reproductions of historic light fixtures (24 C.C.R. §§6-146(a)3Q; 6-147, Exception 14). “New work” within an historic property, which is generally defined as non-historical additions and expansions (usually those outside the existing envelope of the building), is subject to the requirements of current codes and regulations, including the Title 24 Building Code energy efficiency standards. In addition, new and replacement non-historical mechanical, electrical, and refrigeration equipment in qualified historical buildings are required to comply with current energy requirements, unless doing so threatens the building’s historical significance or character-defining features (24 C.C.R. §8-901.5).

For additions which extend the footprint of the historic structure, the mandates of the regular code properly take greater precedence, although the project remains under the SHBC's governance. The reason for this is to ensure, on a case-by-case basis, that the new work does not interact unfavorably, either practically or aesthetically, with the historic property.

(b) Western Electricity Coordinating Council (WECC) and the North American Electric Reliability Council (NERC)

The Western Electricity Coordinating Council ("WECC") is responsible for coordinating and promoting electricity reliability from Alberta and British Columbia to northern Baja California and the 14 western states in between.¹⁷ While membership in WECC is voluntary, LADWP is a member. WECC has implemented Standard BAL-STD-002-0 to require reliable operation of the interconnected power system and provide adequate generating capacity be available at all times to account for varying demands and avoid loss of firm load following transmission or generation contingencies.

Specifically, WECC Standard BAL-STD-002-0 requires:

1. Supply requirements for load variations;
2. Replace generating capacity and energy lost due to forced outages of generation or transmission equipment;
3. Meet on-demand obligations; and
4. Replace energy lost due to curtailment of interruptible imports.

(c) Los Angeles Green Building Ordinance

Recognizing that over 40 percent of greenhouse gas ("GHG") emissions are generated from buildings, the City of Los Angeles also adopted a Green Building Ordinance (Ordinance 179,820) in April 2008 to address the impact on climate change from new development. This new ordinance establishes the Green Building Program, whereby certain new development must at a minimum meet the intent of the "certified" performance level under the US Green Building Council's Leadership in Energy and Environmental and Design program ("LEED"). The types of development that are required to meet the standards of the Green Building Ordinance include:

¹⁷ *Western Electricity Coordinating Council, About WECC, website: <http://www.wecc.biz/About/Pages/default.aspx>, accessed November 12, 2009.*

- A new non-residential building or structure of 50,000 gross square feet or more of floor area; or
- A new mixed use or residential building of 50,000 gross square feet or more of floor area in excess of six stories; or
- A new mixed use or residential building of six or fewer stories consisting of at least 50 dwelling units in a building, which has at least 50,000 gross square feet of floor area, and in which at least 80 percent of the building's floor area is dedicated to residential uses; or
- The alteration or rehabilitation of 50,000 gross square feet or more of floor area in an existing non-residential building for which construction costs exceed a valuation of 50 percent of the replacement cost of the existing building; or
- The alteration of at least 50 dwelling units in an existing mixed use or residential building, which has at least 50,000 gross square feet of floor area, for which construction costs exceed a valuation of 50 percent of the replacement cost of the existing building.

In meeting this requirement, the developer must submit a LEED checklist, provide a signed declaration from a LEED accredited professional stating that the project meets the intent of LEED certification, and provide a set of plans that identifies the LEED measures. This green building ordinance also includes a provision that would expedite processing for buildings that meet the “silver” standard per the LEED guidelines.

b. Environmental Impacts

(1) Methodology

The environmental impacts of the Proposed Project with respect to electricity are determined based on the proposed increase in electricity demand and the capacity of existing and proposed distribution infrastructure. The existing electricity demand is compared to the Proposed Project's electricity demand and electricity infrastructure capacity under both Option A and Option B. Electricity consumption is estimated based on consumption rates provided by the SCAQMD, *CEQA Air Quality Handbook*, Table A9-11-A, 1993. To provide a conservative analysis, the Proposed Project's energy-saving design features are not considered in this analysis. A more detailed discussion of these energy-saving design features is found in the description of the Project's Design Features below.

(2) Thresholds of Significance

As set forth in the *L.A. CEQA Thresholds Guide* (2006), the determination of significance shall be made on a case-by-case basis, considering the following factors:

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

(3) Issues Scoped Out from Further Study

In the assessment of electricity impacts, no topics were scoped out from further study. The following analysis addresses all of the above thresholds of significance.

(4) Project Design Features

To reduce on-site energy use, both Option A and Option B would incorporate environmentally sustainable Project Design Features (“PDFs”) that would be equivalent to a LEED Silver Certification, and would seek certification to that effect. These PDFs are considered in the analysis of the Proposed Project’s potential impacts on electricity use:

- The Proposed Project would reduce the urban heat island effect by placing all new parking spaces underground;
- The roofs of all new buildings and applicable renovations would be designed to reduce the urban heat island effect through the use of roofing materials having a LEED-recommended Solar Reflective Index for a minimum of 75 percent of the roof surface;
- All on-site landscaping would be designed to reduce water use by at least 50 percent through the use of water-efficient landscaping features and drought-tolerant plant species;
- All new buildings and applicable renovations to existing buildings would utilize water-efficient interior plumbing fixtures designed to reduce water use by at least 20 percent in terms of the water use baseline calculated for the building (not

including irrigation) after meeting the Energy Policy Act of 1992 fixture performance requirements;

- All new buildings and applicable renovations to existing buildings would be designed to meet LEED Enhanced Commissioning of the Building Energy System standards;
- All new buildings and applicable building renovations would be designed to meet LEED Minimum Energy Performance standards;
- All new buildings and applicable building renovations would be designed to optimize energy performance in accordance with LEED standards;
- All new buildings or applicable building renovations would incorporate controllable lighting systems in their design; and
- All new buildings or applicable building renovations would be designed to meet LEED Thermal Comfort Design standards by designing Heating Ventilating, and Air Conditioning (“HVAC”) systems and the building envelopes to meet the requirements of the American Society of Heating, Refrigerating and Air-conditioning Engineers (“ASHRAE”) Standard 55-2004, Thermal Comfort Conditions for Human Occupancy.

In addition to the above PDFs to reduce on-site energy use, the Proposed Project would also implement PDFs to reduce the energy use associated with transportation to and from the Project Site. For example, both Option A and Option B would include access to public transportation and bicycle storage and changing rooms. In achieving an equivalent to LEED Silver certification, both Option A and Option B under the Proposed Project would exceed both the standards set forth in both the City’s Green Building Ordinance and the standards of the Title 24 Building Code.

(5) Project Impacts

(a) Option A

As discussed in Section III, Project Description, of this Draft EIR, development of Option A would involve the demolition of all existing uses and the construction of a mixed-use development that would include two, 49-story buildings positioned on the north and south sides of a 2-acre publicly accessible plaza that would be surrounded by ground-level retail and restaurant uses. The proposed mixed-use development would consist of residential, hotel and office uses, as well as retail and restaurant uses. Option A would remove the Existing Hotel and associated buildings, as well as all landscaping now located on the Project Site.

Under Option A, the South Building would be exclusively dedicated for residential use, consisting of 130 condominium units. The north building would include 240 hotel rooms, 163 condominium units, and 114,000 square feet of office space. Currently, the Project Site consumes approximately 20,844 kWh of electricity per day, or 7,608,005 kWh per year (see Table IV.E-1, Existing Uses Electricity Consumption, on page IV.E-5). The Option A development is estimated to consume approximately 25,188 kWh of electricity per day, or approximately 8,189,962 kWh per year (see Table IV.E-2, Proposed Project Electricity Consumption, on page IV.E-11). This consumption represents a net increase of 4,344 kWh of electricity per day, or approximately 581,957 kWh per year, consumed on the Project Site over the existing uses under Option A.

(b) Option B

Option B would rehabilitate and reuse the Rehabilitated Building as a mixed-use building containing hotel, residential, retail, and restaurant uses. The first two floors of the 16-story structure would include retail, restaurant, and separate hotel and residential lobby areas. Sixty three residential condominiums would be distributed throughout the top five floors. The remaining nine floors would include 394 hotel rooms. The Rehabilitated Building would also include approximately 26,250 square feet of meeting/ballroom space, 1,900 square feet of hotel retail space, a 14,000-square foot spa and fitness center, and 9,100 square feet of hotel restaurant space. Under Option B, additional development would be provided behind the Rehabilitated Building. This would consist of a combination of retail and residential buildings. The north building and south building would be positioned behind (west and south of) the Rehabilitated Building. The North Building would Scenario. Thus, the Option B With Office Scenario represents the highest level of electricity consumption that could occur under Option B.

(i) *Electricity Supplies*

LADWP's 2010 IRP, which considers projected energy loads and resources through 2030, concludes that by taking actions to achieve the recommendations set forth in the 2010 IRP, LADWP can continue to meet its goals of providing reliable service to its customers, remaining committed to environmental leadership, and maintaining a competitive price.¹⁸

¹⁸ *Final 2010 Integrated Resource Plan, op. cit.*

**Table IV.E-2
Proposed Project Electricity Consumption**

Land Use	Size			Consumption Rate	Total (kWh/day)			Total (kWh/year)		
	Option A	Option B With Office Scenario	Option Without Office Scenario		Option A	Option B With Office Scenario	Option B Without Office Scenario	Option A	Option B With Office Scenario	Option B Without Office Scenario
Hotel Guestrooms	152,400 sf (240 rm)	202,263 sf (394 rm)	202,263 sf (394 rm)	9.95 kWh/sf/month	4,154	5,514	5,514	1,516,380	2,012,517	2,012,517
Banquet/ Meeting Room ^a	26,250 sf	26,250 sf	26,250 sf	10.50 kWh/sf/month	755	755	755	275,625	275,625	275,625
Retail ^b	95,800 sf	84,520 sf	84,520 sf	13.55 kWh/sf/month	3,556	3,138	3,138	1,298,090	1,145,246	1,145,246
Restaurant ^c	23,400 sf	20,320 sf	20,320 sf	47.45 kWh/sf/month	3,042	2,642	2,642	1,110,330	964,184	964,184
Health Club/ Spa ^a	14,800 sf	14,000 sf	14,000 sf	10.50 kWh/sf/month	426	403	403	155,400	147,000	147,000
Office ^d	114,000 sf	101,500 sf	0 sf	12.95 kWh/sf/month	4,055	3,601	0	1,476,300	1,314,425	0
Lobby/Common Space ^e	76,200 sf	101,816 sf	109,244 sf	10.50 kWh/sf/month	2,192	2,929	3,143	800,100	1,069,068	1,147,062
Support Space ^f	78,550 sf	199,730 sf	199,730 sf	10.50 kWh/sf/month	2,260	5,746	5,746	824,775	2,097,165	2,097,165
Residential	308 units	271 units	363 units	5,626.50 kWh/unit/month	4,748	4,177	5,596	1,732,962	1,524,782	2,042,420
Proposed Project Total					25,188	28,905	26,937	8,189,962	10,550,012	9,831,219
Existing Uses Total					20,844	20,844	20,844	7,608,005	7,608,005	7,608,005
Net Increase in Electricity Consumption					4,344	8,061	6,093	581,957	2,942,007	2,223,214

**Table IV.E-2 (Continued)
Proposed Project Electricity Consumption**

Land Use	Size		Consumption Rate	Total (kWh/day)			Total (kWh/year)		
	Option A	Option B With Office Scenario		Option B Without Office Scenario	Option A	Option B With Office Scenario	Option B Without Office Scenario	Option A	Option B With Office Scenario
<p><i>sf = square feet; rm = rooms; kWh = kilowatt-hour</i> <i>All calculations rounded to the nearest whole number.</i></p> <p>^a <i>No rate exists for these uses so the miscellaneous rate was used.</i></p> <p>^b <i>For Option A: includes 4,800 sf hotel retail and 91,000 sf plaza retail. For Option B (both Scenarios): includes 1,900 sf hotel retail and 82,620 sf plaza retail.</i></p> <p>^c <i>For Option A: includes 8,400 sf hotel restaurant and 15,000 sf plaza restaurant. For Option B (both Scenarios): includes 9,100 sf hotel restaurant and 11,220 sf plaza restaurant.</i></p> <p>^d <i>For Option A: includes 100,000 sf leasable office space and 14,000 sf office lobby. For Option B With Office Scenario: includes 101,500 sf leasable office space (no office lobby space is included for Option B Scenario).</i></p> <p>^e <i>For Option A: includes 69,000 sf residential lobby/amenity/common space and 7,200 sf hotel lobby. For Option B With Office Scenario: includes 93,099 sf residential lobby/amenity/common space and 8,717 sf hotel lobby. For Option B Without Office Scenario: includes 100,527 sf residential lobby/amenity/common space and 8,717 sf hotel lobby.</i></p> <p>^f <i>For Option A: includes 6,000 sf hotel office/administration space, 41,460 sf back of house, 31,090 sf other functional support space. For Option B (both scenarios): includes 11,207 sf hotel office/administration space, 103,156 sf back of house, and 85,367 sf of other functional support space.</i></p> <p><i>Source (consumption rates): SCAQMD, CEQA Air Quality Handbook, Table A9-11-A, 1993.</i></p> <p><i>Source (calculations): Matrix Environmental, 2010.</i></p>									

Because electricity is not a stored commodity, and is generated in response to demand, the appropriate measure for assessing overall supply is electricity sales. As outlined above, LADWP's annual sales currently exceed 23 million MWh.¹⁹ LADWP's projected annual sales for 2015, the Proposed Project build-out year, is 24.5 million MWh.²⁰ Thus, LADWP's forecasted growth in annual electricity supply between 2009 and 2015 is approximately 1.5 million MWh. As shown in Table IV.E-2 on page IV.E-11, Option A of the Proposed Project would result in a net increase of 4,344 kWh (4.34 MWh) per day, or 581,957 kWh (581.96 MWh) per year, which represents less than 0.04 percent of LADWP's forecasted growth in annual electricity supply by 2015. Therefore, the net increase in power demand associated with Option A is anticipated to be within the service capabilities of LADWP.

The Option B With Office Scenario would demand more electricity than the Option B Without Office Scenario. Therefore, for a conservative analysis, the Option B With Office Scenario is analyzed to determine the worst-case-scenario for Option B's electricity demand. As shown in Table IV.E-2, the Option B With Office Scenario would result in a net increase of 8,061 kWh (8.06 MWh) per day, or 2,942,007 kWh (2,942.01 MWh) per year, which would represent approximately 0.20 percent of LADWP's forecasted growth in annual electricity supply by 2015. Therefore, the net increase in power demand associated with the Option B is anticipated to be within the service capabilities of LADWP.

In addition, LADWP, as part of the western United States power grid, is required to meet certain operational, supply, and reliability criteria as established by WECC and NERC. These criteria establish, for one, certain reserve margin requirements that LADWP must meet to accommodate any unforeseen contingencies.²¹ Furthermore, energy conservation standards established by the Title 24 Building Code would be incorporated into new buildings and the renovated portions of existing buildings as part of the building permit process and thus reduce the amount of electricity consumed by either Option A or Option B by addressing insulation, glazing, lighting, shading, and water and space heating systems, such that both Option A and Option B would exceed the requirements of the Title 24 Building Code. In addition, as noted above, both Option A and Option B would incorporate environmentally sustainable PDFs that would be equivalent to a LEED Silver certification, and would seek certification to that effect. These environmentally sustainable PDFs would include a variety of green building elements, including use of efficient water management techniques, green roofs and other sustainability features, all of which incorporate energy conservation measures (refer to the Project Design Features discussion

¹⁹ *Ibid*, p. 1-8.

²⁰ *Ibid*, Table A-1, *Trend Case Energy Sales and Peak Demand*, p. A-5.

²¹ *Op. cit.*

above). The environmentally sustainable PDFs would exceed the requirements of the Los Angeles Green Building Ordinance that seeks to reduce energy use in buildings and reduce greenhouse gas emissions. Both Option A and Option B would also be designed to exceed the Title 24 Building Code requirements. Electrical connection of the Proposed Project would not require new (off-site) energy supply facilities or alterations to existing facilities under Option A or Option B. As such, impacts on electricity supplies as related to the buildout of the Proposed Project, under either Option A or Option B, would be less than significant. No mitigation measures are required.

(ii) Electricity Distribution System

The projected increase in electrical demand due to the Proposed Project would not have an adverse effect on the electrical system that serves the Project Site. Depending on the exact location and size of the Proposed Project's requested services (which would be determined as site plans are finalized), an on-site electrical transformer may be required.²² The Project Applicant would be responsible for paying connection costs and installing any necessary on-site facilities. As existing electrical lines connect to the Project Site, no outage should be required in order to provide electrical service to the Project Site. LADWP is not aware of any deficiencies in the nearby distribution system.²³ In addition, an ongoing program of capital improvements is underway to preclude future deficiencies and accommodate new transmission and distribution lines throughout LADWP service area.²⁴ LADWP undertakes expansion and/or modification of electricity distribution infrastructure and systems to serve future growth in the City of Los Angeles as required in the normal process of providing electrical service. Under both Option A and Option B, electrical connection of the Proposed Project would not entail expansion of off-site distribution infrastructure nor capacity-enhancing alterations to existing off-site facilities. Therefore impacts to the electricity distribution system would be less than significant under both Option A and Option B. No mitigation measures are required.

(iii) Extended Horizon Analysis

It should also be noted that while the Applicant intends to complete construction of the Proposed Project by 2015, it is at least possible that the Proposed Project might not be completed until as late as 2027. As noted in Section II (Project Description) of this Draft EIR, the Applicant requests approval of a Development Agreement ("DA") which would

²² Letter correspondence from Charles Holloway, Manager of Environmental Assessment, City of Los Angeles Department of Water and Power, February 6, 2009.

²³ *Ibid.*

²⁴ *Final 2010 Integrated Resource Plan, op. cit.*

confer on the Applicant a vested right to develop the Proposed Project throughout the term of the agreement. It is expected that the DA would be approved in 2012 and the terms of the agreement would be for a period of 15 years, thereby expiring in 2027. In the unlikely event that the Project buildout year was to be extended by 12 years to coincide with the anticipated expiration of the term of the requested DA, buildout of the Project would continue to fall within the planning horizon of the 2010 IRP, which considers projected energy loads and resources through 2030. Specifically, as outlined above, LADWP's annual sales currently exceed 23 million MWh.²⁵ LADWP's projected annual sales for 2027 are 29.5 million MWh.²⁶ Thus, LADWP's forecasted growth in annual electricity supply between 2009 and 2027 is approximately 6.5 million MWh. As shown in Table IV.E-2 on page IV.E-11, the estimated electricity consumption by Option A would be approximately 25,188 kWh of electricity per day, or approximately 8,189,962 kWh per year. This would represent approximately 0.01 percent of LADWP's forecasted growth in annual supply between 2009–2027. Also, as shown in Table IV.E-2 on page IV.E-11, the estimated electricity consumption by the Option B With Office Scenario would be approximately 28,905 kWh of electricity per day, or approximately 10,550,012 kWh per year. This would represent approximately 0.05 percent of LADWP's forecasted growth in annual supply between 2009–2027. Both Options of the Proposed Project would continue to comply with the Title 24 Building Code in addition to any future energy conservation regulations applicable to new development. Therefore, impacts under Option A and Option B (both Scenarios) would be less than those analyzed above if the Project buildout year were to be extended to 2027.

c. Cumulative Impacts

The related projects evaluated in this cumulative analysis comprise the planned or projected development identified in the related projects list (see Section II, Environmental Setting, of this Draft EIR). The geographic context for cumulative energy resources analysis pertaining to electricity entails the LADWP service area; thus, only those related projects planned for the City of Los Angeles are included in this cumulative discussion. The related projects primarily include residential, commercial, retail, and office land uses. Implementation of the Proposed Project in combination with the 87 related projects identified within the LADWP service area would increase the demand for electricity. Table IV.E-3, Cumulative Electricity Consumption, on page IV.E-16 shows the estimated electricity consumption by the related projects, estimated to total 61,828,351 kWh per year. In combination with Option A, cumulative electricity consumption would be approximately

²⁵ *Final 2010 Integrated Resource Plan, op. cit., p.1-8.*

²⁶ *Final 2010 Integrated Resource Plan, op. cit., Table A-1, Trend Case Energy Sales and Peak Demand, p. A-5.*

**Table IV.E-3
Cumulative Electricity Consumption**

Map No.	Land Use	Size	Consumption Rate ^a	Total (kWh/yr)
City of Los Angeles Projects				
LA 1	Middle School Classroom and Facility Net Expansion (Add 12 Faculty)	85,000 sf	10.50 kWh/sf/yr ^b	892,500
LA 2	Apartments	78 du	5,626.5 kWh/du/yr	438,867
	Retail	17,400 sf	13.55 kWh/sf/yr	235,770
LA 3	Private School (K-8)	140 students (2,800 sf) ^c	5.90 kWh/sf/yr	16,520
LA 4	Condominiums	20 du	5,626.5 kWh/du/yr	112,530
	<i>Apartments (removed)</i>	<i>(11 du)</i>	<i>5,626.5 kWh/du/yr</i>	<i>-61,892</i>
LA 5	New medical center building	100 beds (50,000 sf) ^d	21.70 kWh/sf/yr	1,085,000
	Advanced Health Science Pavilion	396,000 sf	12.95 kWh/sf/yr	5,128,200
	Cedars-Sinai Medical Remaining Entitlements	170,650 sf	12.95 kWh/sf/yr	2,209,918
LA 6	Retail (shopping center)	303,440 sf	13.55 kWh/sf/yr	4,111,612
	Health/Fitness Club (YogaWorks)	7,100 sf	13.55 kWh/sf/yr	96,205
	Restaurant (high-turnover)	28,000 sf	47.45 kWh/sf/yr	1,328,600
	Office (general)	7,000 sf	12.95 kWh/sf/yr	90,650
	<i>Retail (removed)</i>	<i>(273,999 sf)</i>	<i>13.55 kWh/sf/yr</i>	<i>-3,712,686</i>
	<i>Restaurant (removed)</i>	<i>(27,829 sf)</i>	<i>47.45 kWh/sf/yr</i>	<i>-1,320,486</i>
	<i>Office (general) (removed)</i>	<i>(30,746 sf)</i>	<i>12.95 kWh/sf/yr</i>	<i>-398,161</i>
LA 7	Condominiums	10 du	5,626.5 kWh/du/yr	56,265
LA 8	Condominiums	140 du	5,626.5 kWh/du/yr	787,710
	<i>Apartments (removed)</i>	<i>(73 du)</i>	<i>5,626.5 kWh/du/yr</i>	<i>-410,734</i>
	<i>Condominiums (removed)</i>	<i>(11 du)</i>	<i>5,626.5 kWh/du/yr</i>	<i>-61,892</i>
LA 9	Condominiums	14 du	5,626.5 kWh/du/yr	78,771
LA 10	Apartments	88 du	5,626.5 kWh/du/yr	495,132
	Retail	13,500 sf	13.55 kWh/sf/yr	182,925
	<i>Car Sales (removed)</i>	<i>(4,200 sf)</i>	<i>13.55 kWh/sf/yr</i>	<i>-56,910</i>
LA 11	Retail	29,060 sf	13.55 kWh/sf/yr	393,763
	Restaurant (fast food)	2,500 sf	47.45 kWh/sf/yr	118,625
	Apartments	130 du	5,626.5 kWh/du/yr	731,445
LA 12	Day Care	84 students (1,680 sf) ^c	5.90 kWh/yr	9,912
	Private School (K-8)	216 student (4,320 sf) ^c	5.90 kWh/sf/yr	25,488
LA 13	Condominiums	4 du	5,626.5 kWh/du/yr	22,506
LA 14	Condominiums	5 du	5,626.5 kWh/du/yr	28,133

Table IV.E-3 (Continued)
Cumulative Electricity Consumption

Map No.	Land Use	Size	Consumption Rate^a	Total (kWh/yr)
LA 15	Condominiums	4 du	5,626.5 kWh/du/yr	22,506
LA 16	Shopping Center	11,085 sf	13.55 kWh/sf/yr	150,202
LA 17	Assisted Living	183 beds (91,500 sf) ^d	21.70 kWh/sf/year	1,985,550
	Skilled Nursing	22 du	5,626.5 kWh/du/yr	123,783
	<i>Apartments (removed)</i>	<i>(36 du)</i>	<i>5,626.5 kWh/du/yr</i>	<i>-202,554</i>
LA 18	Retail	7,872 sf	13.55 kWh/sf/yr	106,666
	Office	16,200 sf	12.95 kWh/sf/yr	209,790
LA 19	Condominiums	5 du	5,626.5 kWh/du/yr	28,133
LA 20	Private School (K-12)	425 students (8,500 sf) ^c	5.90 kWh/sf/yr	50,150
	Retail (specialty)	9,615 sf	13.55 kWh/sf/yr	130,283
	Condominiums	31 du	5,626.5 kWh/du/yr	174,422
	<i>Chabad School (removed)^e</i>	<i>(314 students) (6,280 sf)^c</i>	<i>5.90 kWh/sf/yr</i>	<i>-37,052</i>
LA 21	Condominiums	7 du	5,626.5 kWh/du/yr	39,386
	<i>Duplex (removed)</i>	<i>(2 du)</i>	<i>5,626.5 kWh/du/yr</i>	<i>-11,253</i>
LA 22	Condominiums	15 du	5,626.5 kWh/du/yr	84,398
LA 23	Apartments	39 du	5,626.5 kWh/du/yr	219,434
	Retail	11,327 sf	13.55 kWh/sf/yr	153,481
LA 24	Apartments	36 du	5,626.5 kWh/du/yr	202,554
	<i>Apartments (removed)</i>	<i>(14 du)</i>	<i>5,626.5 kWh/du/yr</i>	<i>-78,771</i>
LA 25	Fast-Food Restaurant	1,000 sf	47.45 kWh/sf/yr	47,450
LA 26	Convenience market	2,750 sf	13.55 kWh/sf/yr	37,263
LA 27	Retail	15,000 sf	13.55 kWh/sf/yr	203,250
	Restaurant (high-turnover)	2,993 sf	47.45 kWh/sf/yr	142,018
	Office (medical)	74,000 sf	12.95 kWh/sf/yr	958,300
	Theater	1,135 seats (11,350 sf) ^e	12.95 kWh/sf/yr	146,983
LA 28	Theater (net new)	336 seats (3,360 sf) ^e	12.95 kWh/sf/yr	43,512
LA 29	Retail (shopping center)	61,000 sf	13.55 kWh/sf/yr	826,550
	Supermarket	54,000 sf	13.55 kWh/sf/yr	731,700
	Apartments	350 du	5,626.5 kWh/du/yr	1,969,275
	<i>Movie Theater (removed)</i>	<i>(652 seats) (6,520 sf)^e</i>	<i>12.95 kWh/sf/yr</i>	<i>-84,434</i>
	<i>Retail (specialty) (removed)</i>	<i>(24,000 sf)</i>	<i>13.55 kWh/sf/yr</i>	<i>-325,200</i>
	<i>Apartments (removed)</i>	<i>(42 du)</i>	<i>5,626.5 kWh/du/yr</i>	<i>-236,313</i>
LA 30	Condominiums	49 du	5,626.5 kWh/du/yr	275,699
	Office	41,000 sf	12.95 kWh/sf/yr	530,950
	Specialty Retail	8,000 sf	13.55 kWh/sf/yr	108,400

Table IV.E-3 (Continued)
Cumulative Electricity Consumption

Map No.	Land Use	Size	Consumption Rate^a	Total (kWh/yr)
LA 31	Office	146,708 sf	12.95 kWh/sf/yr	1,899,869
LA 32	Medical Use	1,500,000 sf	12.95 kWh/sf/yr	19,425,000
LA 33	Luxury Business Hotel	134 rooms (67,000 sf) ^d	9.95 kWh/sf/yr	666,650
	High-Rise Condominiums	10 du	5,626.5 kWh/du/yr	56,265
	Ground-Floor Retail	7,520 sf	13.55 kWh/sf/yr	101,896
LA 34	Health/Fitness Club	36,052 sf	13.55 kWh/sf/yr	488,505
	Office (removed)	(36,052 sf)	12.95 kWh/sf/yr	-466,873
LA 35	Office	34,641 sf	12.95 kWh/sf/yr	448,601
LA 36	Apartments	19 du	5,626.5 kWh/du/yr	106,904
	Retail (specialty)	6,100 sf	13.55 kWh/sf/yr	82,655
	Retail (specialty) (removed)	(16,100 sf)	13.55 kWh/sf/yr	-218,155
LA 37	Hotel (residential)	42 rooms (21,000 sf) ^d	9.95 kWh/sf/yr	208,950
LA 38	Condominiums	60 du	5,626.5 kWh/du/yr	337,590
	Apartments (removed)	(34 du)	5,626.5 kWh/du/yr	-191,301
LA 39	Condominiums	119 du	5,626.5 kWh/du/yr	669,554
	Hotel (removed)	(66 rooms) (33,000 sf) ^d	9.95 kWh/sf/yr	-328,350
LA 40	Condominiums	64 du	5,626.5 kWh/du/yr	360,096
LA 41	Independent Living	62 du	5,626.5 kWh/du/yr	348,843
	Assisted Living	118 du	5,626.5 kWh/du/yr	663,927
LA 42	Office	12,000 sf	12.95 kWh/sf/yr	155,400
	Apartments	30 du	5,626.5 kWh/du/yr	168,795
LA 43	Apartments	19 du	5,626.5 kWh/du/yr	106,904
LA 44	Condominiums	35 du	5,626.5 kWh/du/yr	196,928
LA 45	Convenience Market	3,750 sf	13.55 kWh/sf/yr	50,813
LA 46	Condominiums	18 du	5,626.5 kWh/du/yr	101,277
	Residential (removed)	(1 du)	5,626.5 kWh/du/yr	-5,627
LA 47	Condominiums	72 du	5,626.5 kWh/du/yr	405,108
LA 48	Apartments	36 du	5,626.5 kWh/du/yr	202,554
	Retail	8,485 sf	13.55 kWh/sf/yr	114,972
LA 49	Apartments	111 du	5,626.5 kWh/du/yr	624,542
	Retail	7,000 sf	13.55 kWh/sf/yr	94,850
LA 50	Restaurant (fast food), Snack Shop	2,070 sf	47.45 kWh/sf/yr	98,222
LA 51	Apartments	23 du	5,626.5 kWh/du/yr	129,401
	Apartments (removed)	(17 du)	5,626.5 kWh/du/yr	-95,651
LA 52	Condominiums	22 du	5,626.5 kWh/du/yr	123,783
LA 53	Office	25,000 sf	12.95 kWh/sf/yr	323,750

Table IV.E-3 (Continued)
Cumulative Electricity Consumption

Map No.	Land Use	Size	Consumption Rate^a	Total (kWh/yr)
LA 54	Condominiums	16 du	5,626.5 kWh/du/yr	90,024
LA 55	Retail (shopping center)	358,881 sf	13.55 kWh/sf/yr	4,86,2,838
	Condominiums	262 du	5,626.5 kWh/du/yr	1,474,143
	Office (removed)	(289,460 sf)	12.95 kWh/sf/yr	-3,748,507
LA 56	Condominiums	483 du	5,626.5 kWh/du/yr	2,717,600
	Bank (removed)	(9,150 sf)	13.55 kWh/sf/yr	-123,983
	Office (removed)	(6,700 sf)	12.95 kWh/sf/yr	-86,765
	Restaurant (removed)	(19,754 sf)	47.45 kWh/sf/yr	-937,327
LA 57	Condominiums	177 du	5,626.5 kWh/du/yr	995,891
	Community-Serving Retail or Café	1,000 sf	13.55 kWh/sf/yr	13,550
	Private Club	20,000 sf	13.55 kWh/sf/yr	271,000
LA 58	Condominiums	94 du	5,626.5 kWh/du/yr	528,891
LA 59	Condominiums	55 du	5,626.5 kWh/du/yr	309,458
LA 60	Apartments	61 du	5,626.5 kWh/du/yr	343,217
LA 61	Apartments	15 du	5,626.5 kWh/du/yr	84,398
LA 62	Church (with 230-seat sanctuary, offices)	18,143 sf	12.95 kWh/sf/yr	234,952
	Church (removed)	(7,021 sf)	12.95 kWh/sf/yr	-90,922
LA 63	Apartments	63 du	5,626.5 kWh/du/yr	354,470
LA 64	Apartments	10 du	5,626.5 kWh/du/yr	56,265
	Specialty Retail	14,000 sf	13.55 kWh/sf/yr	189,700
LA 65	Office	10,000 sf	12.95 kWh/sf/yr	129,500
LA 66	Discount Store	86,600 sf	13.55 kWh/sf/yr	1,173,430
	Self Storage (removed)	(37,000 sf)	12.95 kWh/sf/yr	-479,150
LA 67	Retail (less existing)	28,000 sf	13.55 kWh/sf/yr	379,400
	Restaurant (removed)	(2,000 sf)	47.45 kWh/sf/yr	-94,900
	Automobile (removed)	(6,500 sf)	13.55 kWh/sf/yr	-88,075
LA 68	Office	17,619 sf	12.95 kWh/sf/yr	228,166
LA 69	Apartment	45 du	5,626.5 kWh/du/yr	253,193
	Retail	7,950 sf	13.55 kWh/sf/yr	107,723
LA 70	Condominiums	16 du	5,626.5 kWh/du/yr	90,024
LA 71	Condominiums	158 du	5,626.5 kWh/du/yr	888,987
	Apartments (removed)	(112 du)	5,626.5 kWh/du/yr	-630,168
LA 72	Condominiums	147 du	5,626.5 kWh/du/yr	827,096
	Restaurant (quality)	7,000 sf	47.45 kWh/sf/yr	332,150
	Private Club	43,000 sf	13.55 kWh/sf/yr	582,650
	Hotel (St. Regis) (removed)	(297 rooms) (148,500 sf) ^d	9.95 kWh/sf/yr	-1,477,575
LA 73	Live/Work Condominiums	84 du	5,626.5 kWh/du/yr	472,626

Table IV.E-3 (Continued)
Cumulative Electricity Consumption

Map No.	Land Use	Size	Consumption Rate^a	Total (kWh/yr)
LA 74	Car Care Center	5,000 sf	13.55 kWh/sf/yr	67,750
LA 75	Office	9,400 sf	12.95 kWh/sf/yr	121,730
LA 76	Apartments	538 du	5,626.5 kWh/du/yr	3,027,057
	Retail	266,800 sf	13.55 kWh/sf/yr	3,615,140
	<i>Cement Plant (removed)</i>	<i>(131,578 sf)</i>	<i>10.50 kWh/sf/yr</i>	<i>-1,381,569</i>
	<i>Stone Yard (removed)</i>	<i>(45,266 sf)</i>	<i>10.50 kWh/sf/yr</i>	<i>-475,293</i>
LA 77	Senior Housing	46 du	5,626.5 kWh/du/yr	258,819
	Office	4,500 sf	12.95 kWh/sf/yr	58,275
LA 78	New Car Sales Expansion	2,750 sf	13.55 kWh/sf/yr	37,263
LA 79	Parking Garage	1,000 spaces	-- ^f	0
LA 80	Condominiums	5 du	5,626.5 kWh/du/yr	28,133
	<i>Residential (removed)</i>	<i>(1 du)</i>	<i>5,626.5 kWh/du/yr</i>	<i>-5,627</i>
LA 81	Museum	100,000 sf	13.55 kWh/sf/yr	1,355,000
	Private Events	800 seats (8,000 sf) ^e	12.95 kWh/sf/yr	103,600
	<i>Museum (removed)</i>	<i>(69,477 sf)</i>	<i>13.55 kWh/sf/yr</i>	<i>-941,413</i>
LA 82	School (high school)	350 students (7,000 sf) ^c	10.50 kWh/sf/yr	73,500
	College (junior/community)	100 students (2,000 sf) ^c	11.55 kWh/sf/yr	23,100
	<i>High School (removed)</i>	<i>(200 students)</i> <i>(4,000 sf)^c</i>	<i>10.50 kWh/sf/yr</i>	<i>-42,000</i>
	<i>Junior college (removed)</i>	<i>(200 students)</i> <i>(4,000 sf)^c</i>	<i>11.55 kWh/sf/yr</i>	<i>-46,200</i>
LA 83	Apartments	48 du	5,626.5 kWh/du/yr	270,072
	Office	1,500 sf	12.95 kWh/sf/yr	19,425
LA 84	Specialty Retail	28,000 sf	13.55 kWh/sf/yr	379,400
	Condominiums	138 du	5,626.5 kWh/du/yr	776,457
LA 85	Condominiums	29 du	5,626.5 kWh/du/yr	163,169
	Office	2,072 sf	12.95 kWh/sf/yr	26,832
	Retail	1,248 sf	13.55 kWh/sf/yr	16,910
	<i>Apartments (removed)</i>	<i>(10 du)</i>	<i>5,626.5 kWh/yr</i>	<i>-56,265</i>
LA 86	Office	5,800 sf	12.95 kWh/sf/yr	75,110
LA 87	School (private high school)	340 students (6,800 sf) ^c	10.50 kWh/sf/yr	71,400
Subtotal Related Projects				61,828,351
Subtotal Option A (Net Increase)				581,957
Total Cumulative Electricity Consumption—Option A				62,410,308
Subtotal with the Option B With Office Scenario (Net Increase)				2,942,007
Total Cumulative Electricity Consumption with the Option B With Office Scenario				64,770,358

Table IV.E-3 (Continued)
Cumulative Electricity Consumption

Map No.	Land Use	Size	Consumption Rate ^a	Total (kWh/yr)
<p><i>sf = square feet</i> <i>du = dwelling unit</i> <i>kWh = kilowatt-hour</i> <i>yr = year</i> All calculations rounded to the nearest whole number.</p> <p>^a SCAQMD CEQA Air Quality Handbook, 1993. Table A9-11-A, Electricity Usage Rate. ^b Assumes rate for "High School" use (closest approximate rate available). ^c Assumes each student requires 20 sf. ^d Assumes each bed/hotel room requires 500 sf. ^e Assumes each seat requires 10 sf ^f These projects do not have an assigned consumption rate, and in the case of parking lots, outdoor areas, and parks, the electricity consumption is considered minimal.</p> <p>Source (calculations): Matrix Environmental, 2010.</p>				

62,325,901 kWh per year, or 170,756 kWh per day.²⁷ In combination with the Option B With Office Scenario, which represents a more conservative analysis between the Option B Scenarios, cumulative electricity consumption would be approximately 64,770,358 kWh per year, or 177,453 kWh per day.

The 87 related projects within the City of Los Angeles would be provided electricity service by LADWP. Under the City Charter, LADWP has an obligation to serve residents of the City. According to LADWP, the all time peak demand for its service area was 6,142 MW which occurred in September 2010, and its system has an installed generation capacity of 7,125 MW. In terms of MWh, its annual sales currently exceeds 23 million MWh.²⁸ LADWP's projected annual sales for 2015, the Proposed Project build-out year, is 24.5 million MWh.²⁹ Thus, LADWP's forecasted growth in annual supply between 2009 and 2015 is approximately 1.5 million MWh. As shown in Table IV.E-3, Cumulative

²⁷ With respect to ambient growth, it is anticipated that new construction within the City of Los Angeles and within the LADWP service area would be required to comply with stricter energy conservation standards than past construction. As such, it can be assumed that any increase in the potential demand for electricity from new construction would be counter-balanced by increasingly stringent energy conservation standards for new construction. Therefore, ambient growth was not quantified and included in this cumulative analysis.

²⁸ Final 2010 Integrated Resource Plan, *op. cit.*, p. 1-8.

²⁹ Final 2010 Integrated Resource Plan, *op. cit.*, Table A-1, Trend Case Energy Sales and Peak Demand, p. A-5.

Electricity Consumption, the estimated electricity consumption by the 87 related projects in combination with Option A would be approximately 62,410,308 kWh (62,410.31 MWh) per year, or approximately 170,987 kWh (170.99 MWh) per day. This would represent approximately 4.2 percent of LADWP's forecasted growth in annual supply between 2009–2015, with the net increase under Option A itself accounting for approximately 0.04 percent. Therefore, the net increase in power demand associated with Option A and cumulative related development is anticipated to be within the service capabilities of LADWP because Option A represents a very small portion (approximately 4.2 percent) of the additional electricity supply that would be available at Project build-out, and the increase associated with Option A is not considered a substantial incremental contribution.

Also, as shown in Table IV.E-3 on page IV.E-16, Cumulative Energy Consumption with the Option B With Office Scenario would be approximately 64,770,358 kWh (64,770.36 MWh) per year, or approximately 177,453 kWh (177.45 MWh) per day. This would represent approximately 4.3 percent of LADWP's forecasted growth in annual supply between 2009–2015, with the Option B With Office Scenario itself accounting for approximately 0.20 percent. Therefore, the net increase in power demand associated with the Option B With Office Scenario and cumulative related development is anticipated to be within the service capabilities of LADWP because it represents a very small portion (approximately 4.3 percent) of the additional electricity supply that would be available at Project build-out, and the increase associated with Option B is not considered a substantial incremental contribution.

Furthermore, LADWP's 2010 IRP, which considers projected energy loads and resources through 2030, concludes that by taking actions to achieve the recommendations set forth in the 2007 IRP, LADWP can continue to meet its goals of providing reliable service to its customers, remaining committed to environmental leadership, and maintaining a competitive price.³⁰ In addition, all of the related projects would be required to comply with the Title 24 Building Code, which establishes energy conservation standards for new construction and rehabilitated structures.

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 LADWP would connect such new electricity loads with minimum interruption to existing customers. New electricity distribution lines would likely be installed underground, as recommended in the West Los Angeles Community Plan.

³⁰ *Final 2010 Integrated Resource Plan, op. cit.*

Overall, the cumulative demand for electricity that would result from implementation of either Option A or Option B and the related projects is anticipated to be within the future service capabilities of LADWP. Furthermore, the Proposed Project's incremental contribution (less than one percent) would not be cumulatively considerable. Therefore, cumulative impacts related to electricity supplies and infrastructure would be less than significant under both Option A and Option B. No mitigation measures are required.

As discussed above, the potential exists for the Project buildout year to be extended by 12 years to coincide with the anticipated expiration of the term of the DA in 2027. In the unlikely event that this was to occur, buildout of the Project would continue to fall within the planning horizon of the 2010 IRP, which considers projected energy loads and resources through 2030. Specifically, as outlined above, LADWP's annual sales currently exceed 23 million MWh.³¹ LADWP's projected annual sales for 2027 are 29.5 million MWh.³² Thus, LADWP's forecasted growth in annual electricity supply between 2009 and 2027 is approximately 6.5 million MWh. As shown in Table IV.E-3, Cumulative Electricity Consumption, the estimated electricity consumption by the 87 related projects in combination with Option A would be approximately 62,410,308 kWh (62,410.31 MWh) per year, or approximately 170,987 kWh (170.99 MWh) per day. This would represent approximately 0.96 percent of LADWP's forecasted growth in annual supply between 2009–2027, with the net increase under Option A itself accounting for approximately 0.01 percent. Also, as shown in Table IV.E-3 on page IV.E-16, Cumulative Energy Consumption with the Option B With Office Scenario would be approximately 64,770,358 kWh (64,770.36 MWh) per year, or approximately 177,453 kWh (177.45 MWh) per day. This would represent approximately 1.0 percent of LADWP's forecasted growth in annual supply between 2009–2027, with the Option B With Office Scenario itself accounting for approximately 0.05 percent. Like the related projects, additional future development through 2027 would be required to comply with the Title 24 Building Code in addition to any future energy conservation regulations applicable to new development. Therefore, cumulative impacts under Option A and Option B (both Scenarios) would be less than those analyzed above if the Project buildout year were to be extended to 2027.

d. Mitigation Measures

Impacts to electricity supplies and infrastructure would be less than significant under both Option A and Option B. Therefore, no mitigation measures are required.

³¹ *Final 2010 Integrated Resource Plan, op. cit., p.1-8.*

³² *Final 2010 Integrated Resource Plan, op. cit., Table A-1, Trend Case Energy Sales and Peak Demand, p. A-5.*

e. Level of Significance After Mitigation

Impacts to electricity supplies and infrastructure would be less than significant under both Option A and Option B.

IV. Environmental Impact Analysis

E. Energy Conservation

2. Natural Gas

a. Environmental Setting

(1) Natural Gas Supplies

The Southern California Gas Company (“SCG”) provides natural gas resources to the City of Los Angeles and the majority of Southern California and Central California from the United States/Mexico border to Visalia, California. SCG serves approximately 20.3 million customers in more than 500 communities.³³ SCG has a storage capacity of 131 billion cubic feet (Bcf), and receives an injection of approximately 850 million cubic feet per day (MMcfd) and a withdrawal of approximately 3,195 MMcfd.³⁴ SCG plans to add 7 Bcf to its storage capacity between 2010-2014, and forecasts a daily injection of 145 MMcfd.³⁵ The existing SCG transmission and storage system has sufficient capacity to serve a demand of 6.0 Bcf per day through a combination of flowing supply and storage.³⁶

It should be noted that Project occupancy would occur in early 2015, whereas the most distant SCG capacity projections are for the year 2014. Thus, the Proposed Project has been compared to the available 2014 projections. It is reasonable to assume that SCG would continue to implement capacity improvements beyond 2014, thus, this is considered a conservative assessment and is representative of SCG’s capacity to serve the project in early 2015.

³³ *The Southern California Gas Company, About Us, Company Profile, <http://www.socalgas.com/aboutus/profile.html>, January 16, 2009.*

³⁴ *Workshop on Natural Gas Activities, Southern California Gas Company’s and San Diego Gas & Electric Company’s Comments on the 2009 IEPR, Scott Wilder and Kevin Shea, available online: http://www.energy.ca.gov/2009_energypolicy/documents/2009-05-14_workshop/presentations/08_SEMPRA_SDGE_So_Cal_Gas_Co_Wilder_Shea_May_14.pdf, accessed November 23, 2009.*

³⁵ *Ibid.*

³⁶ *Prepared Direct Testimony of David M. Bisi, Southern California Gas Company, before the California Public Utilities Commission, February 4, 2008.*

The availability of natural gas is based on present conditions of gas supply and regulatory policies, as SCG is under the jurisdiction of the California Public Utilities Commission (“CPUC”) and other federal regulatory agencies. In addition, SCG makes available to its customers energy efficiency programs with rebates and incentives for the purpose of reducing natural gas consumption.

SCG obtains its gas resources from several sedimentary basins including: the San Juan Basin in New Mexico, the Permian Basin in West Texas, the Rocky Mountains, Western Canada, and local California supplies, as outlined below.³⁷

(a) Southwestern United States Gas Supplies

Natural gas obtained from these sources, especially the San Juan Basin in New Mexico, provide the majority of gas sold by SCG. However, the San Juan Basin’s conventionally produced gas supplies peaked in 1999 and have been declining at an annual rate of 1.4 percent.³⁸ Further, Permian Basin’s gas also provides an additional source of supply. Natural gas supplies from these sources are delivered to the Southern California region through the El Paso Natural Gas Company and the Transwestern Pipeline Company pipelines.³⁹

(b) Rocky Mountain Gas Supplies

Natural gas obtained from these sources is considered to be a viable alternative to the traditional source of natural gas in the southwestern United States. These natural gas supplies are delivered to the Southern California region through the Kern River Gas Transmission Company’s pipeline. Access to Rocky Mountain gas is also available through pipeline interconnections with the San Juan Basin. From 2000 to 2009, natural gas production in the Rocky Mountain has doubled due to the successful applications of new technology to drill for coal-bed methane gas.⁴⁰

(c) Canadian Gas Supplies

Natural gas obtained from Canada and delivered to Southern California is expected to decline over the next several years as new pipeline capacity to the United States

³⁷ *California Gas and Electric Utilities, 2010 California Gas Report, <http://www.socalgas.com/regulatory/cgr.shtml>, p. 84, accessed May 18, 2011.*

³⁸ *Ibid*, p. 84.

³⁹ *Ibid*.

⁴⁰ *Ibid*, p. 84.

Midwest and Eastern United States is expected to divert Canadian natural gas supplies away from California. An increase in supplies from the Permian Basin and the Rockies are anticipated to replace the diverted Canadian natural gas supplies.⁴¹

(d) Liquefied Natural Gas Supplies

SCG anticipates that future natural gas demand will be met by re-gasified LNG. Exact amounts available and the locations of such future re-gasification terminals are not yet certain. However, as of May 2008, the Energia Costa Azul LNG receiving terminal in Ensenada, Baja California, Mexico was certified, providing another source of supply for California.⁴² This terminal has the capability of re-gasifying one Bcf/day of LNG, and the potential to expand its capabilities to 2.5 Bcf/day in the future.⁴³ There remains some uncertainty about the volume of LNG supplies that will be delivered to California from the Costa Azul terminal in the coming years, but it is likely that these supplies will begin to play a more significant role in serving demand in the Southern California area.

(e) Storage

Underground storage of natural gas plays a vital role in balancing the region's energy supply and demand. SCG owns and operates four underground storage facilities located at Aliso Canyon, Honor Rancho, Goleta, and Playa Del Rey. Of SCG's total 131.1 Bcf of storage capacity, 80 Bcf is allocated to core residential, small industrial, and commercial customers; and about 4 Bcf of capacity is used for system balancing.⁴⁴ The remaining capacity is available to other customers.

(2) Natural Gas Distribution System

(a) Interstate Distribution System

Natural gas is supplied to the Southern California region through a system of interstate pipelines. Interstate pipeline delivery capability into SCG and San Diego Gas and Electric ("SDG&E") on any given day is theoretically over 6,515 MMcf/day based on the Federal Energy Regulatory Commission ("FERC") Certificate Capacity or SoCalGas estimated physical capacity of upstream pipelines. These pipeline systems provide access

⁴¹ *Ibid*, p. 85.

⁴² *Ibid*, pp. 11-13.

⁴³ *Ibid*.

⁴⁴ *Ibid*, p. 90.

to several large supply basins, located in: New Mexico (San Juan Basin), West Texas (Permian Basin), Rocky Mountains, Western Canada, and LNG.⁴⁵

(b) Local Distribution System

SCG provides natural gas resources to the City of Los Angeles through existing gas mains located under the streets and public right-of-ways. SCG has approximately 48,000 miles of existing gas mains of which approximately 44,000 miles are dedicated to distribution and approximately 3,319 miles are dedicated to storage and transmission. Natural gas services are provided in accordance with SCG's policies and extension rules on file with PUC at the time contractual agreements are made.

(3) Energy Efficiency Programs

SCG offers Energy Efficiency programs to provide incentives for customers and developers to reduce natural gas consumption.

(a) Advanced Home Program

Under this program, SCG provides incentive funds for building new single-family and both low-rise and high-rise multi-family construction that exceed the Title 24 Building Code by at least 15 percent. This program promotes a comprehensive residential new construction concept with cross-cutting focus to sustainable design and construction, green building practices, energy efficient and emerging technologies. Compliance must be demonstrated through the performance method utilizing approved California Energy Commission compliance software, and compliance must be demonstrated for the building as a whole and may not group unrelated or detached buildings together.⁴⁶

(4) On-Site Natural Gas Consumption

At present, the existing uses on the Project Site consume approximately 86,019 cubic feet (cf) of gas per day, or approximately 2,580,560 cf per month (see Table IV.E-4, Existing Uses Natural Gas Consumption, on page IV.E-29).

⁴⁵ *Ibid*, pp. 88.

⁴⁶ *The Southern California Gas Company, Advanced Home Program, 2010–2012 Participant Handbook Program Agreement for Single-Family and Multi-Family New Construction Projects*, <http://www.socalgas.com/documents/construction/CAHPHandbook.pdf>, January 17, 2011.

**Table IV.E-4
Existing Uses Natural Gas Consumption**

Land Use	Size	Consumption Rate	Total (cf/day)	Total (cf/month)
Hotel Guestrooms	392,820 sf	4.8 cf/sf/month	62,851	1,885,536
Meeting/Ballroom Space ^a	84,275 sf	2.0 cf/sf/month	5,618	168,550
Restaurant ^b	9,179 sf	4.8 cf/sf/month	1,469	44,059
Retail	1,937 sf	2.9 cf/sf/month	187	5,617
Fitness/Spa ^c	31,835 sf	2.9 cf/sf/month	3,077	92,322
Lobby/Reception ^a	7,503 sf	2.0 cf/sf/month	500	15,006
Support Space ^{a,d}	184,735 sf	2.0 cf/sf/ month	12,316	369,470
Total			86,019	2,580,560

sf = square feet
cf = cubic feet
All calculations rounded to the nearest whole number.
^a *No rate for this use exists so the office rate was utilized.*
^b *No rate for this use exists so the hotel/motel rate was utilized.*
^c *No rate for this use exists so the retail/shopping center rate was utilized.*
^d *Includes back of house, circulation, and restroom/dressing room areas.*
Source (consumption rates): SCAQMD, CEQA Air Quality Handbook, Table A9-12-A, 1993.
Source (calculations): Matrix Environmental, 2010.

(5) Regulatory Framework

(a) Title 24 of the California Code of Regulations

Energy consumption by new buildings in California is regulated by the State Building Energy Efficiency Standards, embodied in Title 24 Building Code. The efficiency standards apply to both the new construction and rehabilitation 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 these standards meet or exceed Title 24 Building Code requirements.

The California Energy Commission's 2008 Building Energy Efficiency Standards provides the regulations and standards to implement the Title 24 Building Code. Section 149 of the 2008 Building Energy Efficiency Standards provides regulations for the addition, alteration, and repair of non-residential, high-rise residential, and hotel/motel structures.

Specifically, alterations to these structures shall comply with either a prescriptive approach or a performance approach to energy-efficient building design. The prescriptive approach focuses on ensuring that all altered or replaced components of the structure, including the building envelope, meet the Title 24 Building Code energy efficiency standards. In comparison, the performance approach focuses on ensuring the altered structure consumes no more energy from depletable sources than the existing structure. Under both approaches, any additions outside the building's current exterior, space conditioning, lighting and water heating components, and newly installed equipment shall meet all applicable the Title 24 Building Code energy efficiency standards.

The extent to which the Title 24 Building Code energy efficiency standards apply to historical buildings is governed by the State Historic Building Code ("SHBC"). The intent of the SHBC is to protect California's architectural heritage by recognizing the unique construction challenges inherent in historic buildings and by providing a code to deal with these issues. For this reason, Section 100(a) of the Title 24 Building Code, Part 6, which states what building occupancy groups are covered by the Title 24 Building Code, contains the following exception: "Exception 1 to Section 100(a): Qualified historic buildings, as defined in the State Historic Building Code (Title 24 Building Code, Part 8)." This is a blanket exemption, and the only exception is for lighting fixtures, which are required under the California Energy Code to comply with energy requirements unless they are historic light fixtures or reproductions of historic light fixtures (24 C.C.R. §§6-146(a)3Q; 6-147, Exception 14). "New work" within an historic property, which is generally defined as non-historical additions and expansions (usually those outside the existing envelope of the building), is subject to the requirements of current codes and regulations, including the Title 24 Building Code energy efficiency standards. In addition, new and replacement non-historical mechanical, electrical, and refrigeration equipment in qualified historical buildings are required to comply with current energy requirements, unless doing so threatens the building's historical significance or character-defining features (24 C.C.R. §8-901.5).

For additions which extend the footprint of the historic structure, the mandates of the regular code properly take greater precedence, although the project remains under the SHBC's governance. The reason for this is to ensure, on a case-by-case basis, that the new work does not interact unfavorably, either practically or aesthetically, with the historic property.

(b) Los Angeles Green Building Ordinance

Recognizing that over 40 percent of GHG emissions are generated from buildings, the City of Los Angeles also adopted a Green Building Ordinance (Ordinance 179,820) in April 2008 to address the impact on climate change from new development. This new ordinance establishes the Green Building Program, whereby certain new development

(e.g., projects of 50,000 square feet or more or with more than 50 residential units) must at a minimum meet the intent of the “certified” performance level under the US Green Building Council’s LEED. The types of development that are required to meet the requirements of the Green Building Ordinance include:

- A new non-residential building or structure of 50,000 gross square feet or more of floor area; or
- A new mixed use or residential building of 50,000 gross square feet or more of floor area in excess of six stories; or
- A new mixed use or residential building of six or fewer stories consisting of at least 50 dwelling units in a building, which has at least 50,000 gross square feet of floor area, and in which at least 80 percent of the building’s floor area is dedicated to residential uses; or
- The alteration or rehabilitation of 50,000 gross square feet or more of floor area in an existing non-residential building for which construction costs exceed a valuation of 50 percent of the replacement cost of the existing building; or
- The alteration of at least 50 dwelling units in an existing mixed use or residential building, which has at least 50,000 gross square feet of floor area, for which construction costs exceed a valuation of 50 percent of the replacement cost of the existing building.

In meeting this requirement, the developer must submit a LEED checklist, provide a signed declaration from a LEED accredited professional stating that the project meets the intent of LEED certification, and provide a set of plans that identifies the LEED measures. This green building ordinance also includes a provision that would expedite processing for buildings that meet the “silver” standard per the LEED guidelines.

b. Environmental Impacts

(1) Methodology

The environmental impacts of the Proposed Project with respect to natural gas are determined based on the proposed increase in natural gas demand and the capacity of existing and proposed distribution infrastructure. The existing natural gas demand is compared to the Proposed Project’s natural gas demand and natural gas infrastructure capacity, including improvements and energy efficiency standards associated with the Proposed Project, under both Option A and Option B. Natural gas consumption is estimated based on consumption rates provided by the SCAQMD, CEQA Air Quality

Handbook, Table A9-12-A, 1993. To provide a conservative analysis, the Proposed Project's energy-saving design features are not considered in this analysis.

(2) Thresholds of Significance

As set forth in the *L.A. CEQA Thresholds Guide* (2006), the determination of significance shall be made on a case-by-case basis, considering the following factors:

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

(3) Issues Scoped Out from Further Study

In the assessment of natural gas impacts, no topics were scoped out from further study. The following analysis addresses all of the above thresholds of significance.

(4) Project Design Features

To reduce on-site energy use, both Option A and Option B would incorporate environmentally sustainable PDFs that would be equivalent to a LEED Silver Certification, and would seek certification to that effect. These PDFs are considered in the analysis of the Proposed Project's potential impacts on electricity use:

- The Proposed Project would reduce the urban heat island effect by placing all new parking spaces underground;
- The roofs of all new buildings and applicable renovations would be designed to reduce the urban heat island effect through the use of roofing materials having a LEED-recommended Solar Reflective Index for a minimum of 75 percent of the roof surface;
- All on-site landscaping would be designed to reduce water use by at least 50 percent through the use of water-efficient landscaping features and drought-tolerant plant species;

- All new buildings and applicable renovations to existing buildings would utilize water-efficient interior plumbing fixtures designed to reduce water use by at least 20 percent;
- All new buildings and applicable renovations to existing buildings would be designed to meet LEED Enhanced Commissioning of the Building Energy System standards;
- All new buildings and applicable building renovations would be designed to meet LEED Minimum Energy Performance standards;
- All new buildings and applicable building renovations would be designed to optimize energy performance in accordance with LEED standards;
- All new buildings or applicable building renovations would incorporate controllable lighting systems in their design; and
- All new buildings or applicable building renovations would be designed to meet LEED Thermal Comfort Design standards by designing HVAC systems and the building envelopes to meet the requirements of the ASHRAE Standard 55-2004, Thermal Comfort Conditions for Human Occupancy.

In addition to the above PDFs to reduce on-site energy use, the Proposed Project would also implement PDFs to reduce the energy use associated with transportation to and from the Project Site. For example, both Option A and Option B would include access to public transportation and bicycle storage and changing rooms. In implementing environmentally sustainable PDFs equivalent to a LEED Silver certification, both Option A and Option B under the Proposed Project would exceed both the standards set forth in both the City's Green Building Ordinance and the standards of the Title 24 Building Code.

(5) Project Impacts

(a) Option A

As discussed in Section III, Project Description, of this Draft EIR, development of Option A would involve the demolition of all existing uses and the construction of a mixed-use development that would include two, 49-story buildings positioned on the north and south sides of a 2-acre publicly accessible plaza that would be surrounded by ground-level retail and restaurant uses. The proposed mixed-use development would consist of residential, hotel and office uses, as well as retail and restaurant uses. Option A would remove the Existing Hotel and associated buildings, as well as all landscaping now located on the Project Site.

Under Option A, the south building would be exclusively dedicated for residential use, consisting of 130 condominium units. Under Option A, the north building would include 240 hotel rooms, 163 condominium units, and 114,000 square feet of office space. At ground level, Option A would also include a pedestrian plaza, which would be approximately 2 acres in size (including courtyards) and accessible from Avenue of the Stars and Constellation Boulevard. Approximately 106,000 square feet of retail, restaurant, and cafe space would surround the plaza.

Currently, the Existing Hotel and related structures on Project Site are estimated to consume approximately 86,019 cf of natural gas per day, or approximately 2,580,560 cf per month (see Table IV.E-4 on page IV.E-29, Existing Uses Natural Gas Consumption, above). Option A is estimated to consume approximately 113,289 cf of natural gas per day, or approximately 3,398,684 cf per month (see Table IV.E-5, Proposed Project Natural Gas Consumption, on page IV.E-35). This consumption represents a net increase of 27,720 cf of natural gas consumed on the Project Site on a daily basis, or 818,224 cf per month, over the existing uses.

(b) Option B

Option B would rehabilitate and reuse the Rehabilitated Building as a mixed-use building containing hotel, residential, retail, and restaurant uses. The first two floors of the 16-story structure would include retail, restaurant, and separate hotel and residential lobby areas. Sixty three residential condominiums would be distributed throughout the top five floors. The remaining nine floors would include 394 hotel rooms. The Rehabilitated Building would also include approximately 26,250 square feet of meeting/ballroom space, 1,900 square feet of hotel retail space, a 14,000-square foot spa and fitness center, and 9,100 square feet of hotel restaurant space. Under Option B, additional development would be provided behind the Rehabilitated Building. This would consist of a combination of retail and residential buildings. The north building and south building would be positioned behind (west and south of) the Rehabilitated Building. The North Building would include 46 stories containing either a mix of residential and office uses or residential uses only (discussed in Section II, Project Description of this Draft EIR). The South Building would include 46 stories containing only residential uses.

The Option B With Office Scenario is estimated to consume approximately 121,976 cf of natural gas per day, or approximately 3,659,296 cf per month (see Table IV.E-5 on page IV.E-35, Proposed Project Natural Gas Consumption). This consumption represents a net increase of 35,957 cf of natural gas consumed on the Project Site on a daily basis, or 1,078,736 cf per month, over the existing uses.

**Table IV.E-5
Proposed Project Natural Gas Consumption**

Land Use	Size			Consumption Rate	Total (cf/day)			Total (cf/month)		
	Option A	Option B With Office Scenario	Option B Without Office Scenario		Option A	Option B With Office Scenario	Option B Without Office Scenario	Option A	Option B With Office Scenario	Option B Without Office Scenario
Hotel Guestrooms	152,400 sf (240 rm)	202,263 sf (394 rm)	202,263 sf (394 rm)	4.8 cf/sf/month	24,384	32,362	32,362	731,520	970,862	970,862
Banquet/ Meeting Room ^a	26,250 sf	26,250 sf	26,250 sf	2.0 cf/sf/month	1,750	1,750	1,750	52,500	52,500	52,500
Retail ^b	95,800 sf	84,520 sf	84,520 sf	2.9 cf/sf/month	9,261	8,170	8,170	277,820	245,108	245,108
Restaurant ^{c,d}	23,400 sf	20,320 sf	20,320 sf	4.8 cf/sf/month	3,744	3,251	3,251	112,320	97,536	97,536
Health Club/ Spa ^e	14,800 sf	14,000 sf	14,000 sf	2.9 cf/sf/month	1,431	1,353	1,353	42,920	40,600	40,600
Office ^f	114,000 sf	101,500 sf	0 sf	2.0 cf/sf/month	7,600	6,767	0	228,000	203,000	0
Lobby/Common Space ^{g,a}	76,200 sf	101,816 sf	109,244 sf	2.0 cf/sf/month	5,080	6,788	7,283	152,400	203,632	218,488
Support Space ^{h,a}	78,550 sf	199,730 sf	199,730 sf	2.0 cf/sf/month	5,236	13,315	13,315	157,100	399,460	399,460
Residential ⁱ	308	271 units	363 units	5,338 cf/du/month	54,803	48,220	64,590	1,644,104	1,446,598	1,937,694
Proposed Project Total					113,289	121,976	132,074	3,398,684	3,659,296	3,962,248
Existing Uses Total					86,019	86,019	86,019	2,580,560	2,580,560	2,580,560
Net Increase in Natural Gas Consumption					27,270	35,957	46,055	818,224	1,078,736	1,381,688

**Table IV.E-5 (Continued)
Proposed Project Natural Gas Consumption**

Land Use	Size		Consumption Rate	Total (cf/day)			Total (cf/month)		
	Option A	Option B With Office Scenario		Option B Without Office Scenario	Option A	Option B With Office Scenario	Option B Without Office Scenario	Option A	Option B With Office Scenario
<p><i>sf = square feet</i> <i>cf = cubic feet</i> <i>rm = rooms</i> All calculations rounded to the nearest whole number.</p> <p>^a No rate for this use exists so the office rate was utilized.</p> <p>^b For Option A: includes 4,800 sf hotel retail and 91,000 sf plaza retail. For Option B (both Scenarios): includes 1,900 sf hotel retail and 82,620 sf plaza retail.</p> <p>^c For Option A: includes 8,400 sf hotel restaurant and 15,000 sf plaza restaurant. For Option B (both Scenarios): includes 9,100 sf hotel restaurant and 11,220 sf plaza restaurant.</p> <p>^d No rate for this use exists so the hotel/motel rate was utilized.</p> <p>^e No rate for this use exists so the retail/shopping center rate was utilized.</p> <p>^f For Option A: includes 100,000 sf leasable office space, and 14,000 sf office lobby. For Option B With Office Scenario: includes 101,500 sf leasable office space (no office lobby space is included for Option B Scenario).</p> <p>^g For Option A: includes 69,000 sf residential lobby and 7,200 sf hotel lobby. For Option B (both Scenarios): includes 31,854 sf residential lobby and 7,576 sf hotel lobby.</p> <p>^h For Option A: includes 41,460 sf back of house, 6,000 sf circulation space, and 25,090 sf other functional support space. For Option B (both Scenarios): includes 60,926 sf back of house and 62,317 sf other functional support space.</p> <p>ⁱ Rate is average between single-family and multi-family unit consumption rates.</p> <p>Source (consumption rates): SCAQMD, CEQA Air Quality Handbook, Table A9-12-A, 1993. Source (calculations): Matrix Environmental, 2010.</p>									

The Option B Without Office Scenario is estimated to consume approximately 132,074 cf of natural gas per day, or approximately 3,962,248 cf per month (see Table IV.E-5, Proposed Project Natural Gas Consumption). This consumption represents a net increase of 46,055 cf of natural gas consumed on the Project Site on a daily basis, or 1,381,688 cf per month, over the existing uses.

(c) Natural Gas Supplies

According to the most recent California Gas Report, natural gas supplies from the southwestern United States (i.e., the San Juan Basin and the Permian Basin) are expected to meet Southern California's gas demand.⁴⁷ As outlined above, SCG has a firm storage capacity of 131 Bcf, and receives an injection of approximately 850 MMcfd and a withdrawal of approximately 3,195 MMcfd. SCG plans to add 7 Bcf to its storage capacity between 2010-2014, and forecasts a daily injection of 145 MMcfd. The SCG transmission and storage system has sufficient capacity to serve a demand of 6.0 Bcf per day through a combination of flowing supply and storage. As noted above, although it is anticipated that SCG would continue to implement capacity improvement projects beyond the year 2014, these additional improvements have not yet been published by SCG. As such, to provide a conservative analysis, the anticipated consumption rates detailed below have been compared against the 2014 planned capacity improvements.

Option A of the Proposed Project, with a net increase in use of natural gas of 27,270 cf per day, or 818,224 cf per month, would represent a negligible component (approximately 0.0005 percent) of existing SCG capacity (6.0 Bcf per day). Of the forecasted daily additions to its storage capacity (145 MMcfd by 2014), Option A would consume only approximately 0.02 percent. The net increase in demand for natural gas associated with Option A of the Proposed Project is therefore considered to be within the anticipated service capabilities of SCG. Even when assuming that no additional capacity improvements would be made beyond the year 2014, Option A would still represent only a negligible portion of the forecasted net increase in SCG's capacity between 2009-2014.

The Option B Without Office Scenario would demand more natural gas than the Option B With Office Scenario. Therefore, for a conservative analysis, the Option B Without Office Scenario is analyzed to determine the more conservative scenario for Option B's natural gas consumption.

As shown in Table IV.E-5 on page IV.E-35, the Option B Without Office Scenario would result in a net increase in use of natural gas of 46,055 cf per day, or 1,381,688 cf per

⁴⁷ *California Gas and Electric Utilities, 2010 California Gas Report, op. cit.*

month. Even when assuming that no additional capacity improvements would be made beyond the year 2014, the net increase under the Option B Without Office Scenario would represent a negligible component (approximately 0.0008 percent) of the existing SCG capacity (6.0 Bcf per day) and approximately 0.03 percent of the forecasted daily additions to its storage capacity (145 MMcfd by 2014). The net increase in demand for natural gas associated with the Option B Without Office Scenario of the Proposed Project is therefore considered to be within the anticipated service capabilities of SCG.

Furthermore, the Title 24 Building Code establishes energy conservation standards for new construction and the rehabilitation of existing structures. These energy conservation standards address insulation, glazing, lighting, shading, and water and space heating systems. As previously discussed, both Option A and Option B of the Proposed Project would implement environmentally sustainable PDFs equivalent to a LEED Silver certification and would exceed both Title 24 and City Green Building Ordinance requirements. Natural gas connection under either Option A or Option B of the Proposed Project would not require new (off-site) energy supply facilities or alterations to existing facilities. As such, impacts to natural gas supplies as a result of the Proposed Project would be less than significant under both Option A or Option B.

(d) Natural Gas Distribution System

According to the 2008 California Gas Report, SCG operates in an environment where interstate pipeline capacity exists in excess of anticipated demand.⁴⁸ Therefore, there is adequate pipeline capacity to deliver natural gas to the SCG service area. The projected increase in natural gas demand due to either Option A or Option B of the Proposed Project would not have an adverse effect on the natural gas distribution system that serves the Project Site. As existing natural gas mains connect to the Project Site, it is not anticipated that any new off-site natural gas distribution pipelines or infrastructure facilities would be constructed or expanded as a result of the Proposed Project under Option A or Option B. Depending on the exact location and size of the Proposed Project's requested services (which would be determined as site plans are finalized), either Option A or Option B may require local infrastructure improvements to connect to the existing infrastructure serving the Project area. The Project Applicant would be responsible for paying connection costs. SCG undertakes expansion and/or modification of the natural gas infrastructure to serve future growth within its service area as part of the normal process of providing service. As such, impacts on natural gas infrastructure as a result of the Proposed Project would be less than significant under both Option A and Option B.

⁴⁸ *Ibid.*

(e) Extended Horizon Analysis

It should be noted that while the Applicant intends to complete construction of the Proposed Project by 2015, it is at least possible that the Proposed Project might not be completed until as late as 2027. As noted in Section II (Project Description) of this Draft EIR, the Applicant requests approval of a Development Agreement (“DA”) which would confer on the Applicant a vested right to develop the Proposed Project throughout the term of the agreement. It is expected that the DA would be approved in 2012 and the terms of the agreement would be for a period of 15 years, thereby expiring in 2027. In the unlikely event that the Project buildout year was to be extended by 12 years to coincide with the anticipated expiration of the term of the requested DA, the conclusions regarding the Proposed Project’s impact to natural gas supplies and facilities would not change. According to the most recent California Gas Report, SCG projects gas demand for all its market sectors to contract at an annual average rate of approximately 0.212 percent from 2010 to 2030.⁴⁹ Demand is expected be virtually flat for the next 21 years due to modest economic growth, CPUC-mandated demand management goals, renewable electricity goals, decline in commercial and industrial demand, and continued increased use of non-utility pipeline systems by enhanced oil recovery customers and savings linked to advanced metering modules. By comparison, the previous (2008) California Gas Report projected an annual growth rate of 0.02 percent from 2008 to 2030. The difference between the two forecasts is caused by the slump in the housing market for the next few years, a reduced employment forecast, a higher gas price projection, and aggressive energy efficiency savings goals.⁵⁰ Given the overall decrease in anticipated areawide demand by 2027, the reliability of existing and future supply sources, and the very small percentage of the existing demand that the Proposed Project would comprise, impacts under Option A and Option B (both Scenarios) would continue to be less than significant if the Project buildout year were to be extended to the anticipated expiration of the term of the requested DA in 2027.

c. Cumulative Impacts

The related projects evaluated in this cumulative impacts analysis comprise the planned or projected development identified in the related projects list (see Section II, Environmental Setting, of this Draft EIR). The geographic context for cumulative energy resources analysis pertaining to natural gas entails the SCG service area; thus, as the SCG service area encompasses all of metropolitan Los Angeles, all of the identified related projects are included in this discussion. The related projects primarily include residential,

⁴⁹ *California Gas and Electric Utilities, 2010 California Gas Report, op. cit.*

⁵⁰ *Ibid.*

commercial retail, and office land uses. Implementation of the Proposed Project in conjunction with the 155 related projects identified within the SCG service area would increase the demand for natural gas.

As shown in Table IV.E-6, Cumulative Natural Gas Consumption, on page IV.E-41, the related projects are estimated to consume a total of 38,189,854 cf of natural gas per month (1,272,995 cf per day). In combination with Option A, cumulative natural gas consumption would be approximately 39,008,078 cf per month, or 1,300,269 cf per day. In combination with the Option B Without Office Scenario, cumulative natural gas consumption would be approximately 39,571,542 cf per month, or 1,319,051 cf per day.⁵¹

As outlined above, as of 2009, SCG has a storage capacity of 131 Bcf, and receives an injection of approximately 850 MMcfd and a withdrawal of approximately 3,195 MMcfd. SCG plans to add 7 Bcf to its storage capacity between 2010-2014, and forecasts a daily injection of 145 MMcfd. The SCG transmission and storage system has sufficient capacity to serve a demand of 6.0 Bcf per day through a combination of flowing supply and storage. As discussed above, it is anticipated that SCG would continue to implement capacity improvements beyond the year 2014. However, to provide a conservative analysis, the projected consumption rates detailed below have been compared against the 2014 planned capacity improvements.

As shown in Table IV.E-6, Cumulative Natural Gas Consumption, the estimated natural gas that would be consumed by the 155 related projects in combination with Option A would be approximately 39.01 MMcf per month, or approximately 1.30 MMcfd. This would represent approximately 0.02 percent of SCG's existing capacity (6.0 Bcf per day), and approximately 0.91 percent of SCG's forecasted daily additions to its storage capacity (145 MMcfd by 2014). Of these two measures of cumulative supply, Option A's incremental contribution would represent approximately 0.0004 percent and 0.02 percent, respectively.

Additionally, as shown in Table IV.E-6 on page IV.E-41, Cumulative Natural Gas Consumption, the estimated natural gas that would be consumed by the 155 related projects in combination with the Option B Without Office Scenario would be approximately 39.57 MMcf per month, or approximately 1.32 MMcfd. This would represent approximately

⁵¹ *With respect to ambient growth, it is anticipated that new construction within the City of Los Angeles and within the LADWP service area would be required to comply with stricter energy conservation standards than past construction. As such, it can be assumed that any increase in the potential demand for natural gas from new construction would be counter-balanced by increasingly stringent energy conservation standards for new construction. Therefore, ambient growth was not quantified and included in this cumulative analysis.*

**Table IV.E-6
Cumulative Natural Gas Consumption**

No.	Land Use	Size	Consumption Rate	Total (cf/month)
City of Los Angeles Projects				
LA 1	Middle School Classroom and Facility Net Expansion (Add 12 Faculty)	85,000 sf	2.0 cf/sf/month ^a	170,000
LA 2	Apartments Retail	78 du	4,011.5 cf/du/month	312,897
		17,400 sf	2.9 cf/sf/month	50,460
LA 3	Private School (K-8)	140 students (2,800 sf) ^b	2.0 cf/sf/month ^a	5,600
LA 4	Condominiums <i>Apartments (removed)</i>	20 du	4,011.5 cf/du/month	80,230
		<i>(11 du)</i>	<i>4,011.5 cf/du/month</i>	<i>-4,127</i>
LA 5	New medical center building Advanced Health Science Pavilion Cedars-Sinai Medical Remaining Entitlements	100 beds (50,000 sf) ^c	4.8 cf/sf/month ^d	240,000
		396,000 sf	2.0 cf/sf/month	792,000
		170,650 sf	2.0 cf/sf/month	341,300
LA 6	Retail (shopping center) Health/Fitness Club (YogaWorks) Restaurant (high-turnover) Office (general) <i>Retail (removed)</i> <i>Restaurant (removed)</i> <i>Office (general) (removed)</i>	303,440 sf	2.9 cf/sf/month	879,976
		7,100 sf	2.9 cf/sf/month ^f	20,590
		28,000 sf	4.8 cf/sf/month ^d	134,400
		7,000 sf	2.0 cf/sf/month	14,000
		<i>(273,999 sf)</i>	<i>2.9 cf/sf/month</i>	<i>-794,597</i>
		<i>(27,829 sf)</i>	<i>2.9 cf/sf/month</i>	<i>-80,704</i>
		<i>(30,746 sf)</i>	<i>2.0 cf/sf/month</i>	<i>-61,492</i>
LA 7	Condominiums	10 du	4,011.5 cf/du/month	40,115
LA 8	Condominiums <i>Apartments (removed)</i> <i>Condominiums (removed)</i>	140 du	4,011.5 cf/du/month	561,610
		<i>(73 du)</i>	<i>4,011.5 cf/du/month</i>	<i>-292,840</i>
		<i>(11 du)</i>	<i>4,011.5 cf/du/month</i>	<i>-44,127</i>
LA 9	Condominiums	14 du	4,011.5 cf/du/month	56,161
LA 10	Apartments Retail <i>Car Sales (removed)</i>	88 du	4,011.5 cf/du/month	353,012
		13,500 sf	2.9 cf/sf/month	39,150
		<i>(4,200 sf)</i>	<i>2.9 cf/sf/month</i>	<i>-12,180</i>
LA 11	Retail Restaurant (fast food) Apartments	29,060 sf	2.9 cf/sf/month	84,274
		2,500 sf	4.8 cf/sf/month ^d	12,000
		130 du	4,011.5 cf/du/month	521,495
LA 12	Day Care Private School (K-8)	84 students (1,680 sf) ^b	2.0 cf/du/month ^a	3,360
		216 students (4,320 sf) ^b	2.0 cf/sf/month ^a	8,640
LA 13	Condominiums	4 du	4,011.5 cf/du/month	16,046

Table IV.E-6 (Continued)
Cumulative Natural Gas Consumption

No.	Land Use	Size	Consumption Rate	Total (cf/month)
LA 14	Condominiums	5 du	4,011.5 cf/du/month	20,058
LA 15	Condominiums	4 du	4,011.5 cf/du/month	16,046
LA 16	Shopping Center	11,085 sf	2.9 cf/sf/month	32,147
LA 17	Assisted Living	183 beds (91,500 sf) ^c	4.8 cf/sf/month ^d	439,200
	Skilled Nursing	22 du	4,011.5 cf/du/month	88,253
	<i>Apartments (removed)</i>	<i>(36 du)</i>	<i>4,011.5 cf/du/month</i>	<i>-144,414</i>
LA 18	Retail	7,872 sf	2.9 cf/sf/month	22,829
	Office	16,200 sf	2.0 cf/sf/month	32,400
LA 19	Condominiums	5 du	4,011.5 cf/du/month	20,058
LA 20	Private School (K-12)	425 students (8,500 sf) ^b	2.0 cf/sf/month ^a	17,000
	Retail (specialty)	9,615 sf	2.9 cf/sf/month	27,884
	Condominiums	31 du	4,011.5 cf/du/month	124,357
	<i>Chabad School (removed)^e</i>	<i>(314 students)</i> <i>(6,280 sf)^b</i>	<i>2.0 cf/sf/month^a</i>	<i>-12,560</i>
LA 21	Condominiums	7 du	4,011.5 cf/du/month	28,081
	<i>Duplex (removed)</i>	<i>(2 du)</i>	<i>4,011.5 cf/du/month</i>	<i>-8,023</i>
LA 22	Condominiums	15 du	4,011.5 cf/du/month	60,173
LA 23	Apartments	39 du	4,011.5 cf/du/month	156,449
	Retail	11,327 sf	2.9 cf/sf/month	32,848
LA 24	Apartments	36 du	4,011.5 cf/du/month	144,414
	<i>Apartments (removed)</i>	<i>(14 du)</i>	<i>4,011.5 cf/du/month</i>	<i>-56,161</i>
LA 25	Fast-food Restaurant	1,000 sf	4.8 cf/sf/month ^d	4,800
LA 26	Convenience market	2,750 sf	2.9 cf/sf/month	7,975
LA 27	Retail	15,000 sf	2.9 cf/sf/month	43,500
	Restaurant (high-turnover)	2,993 sf	4.8 cf/sf/month ^d	14,366
	Office (medical)	74,000 sf	2.0 cf/sf/month	148,000
	Theater	1,135 seats (11,350 sf) ^e	2.0 cf/sf/month ^a	22,700
LA 28	Theater (net new)	336 seats (3,360 sf) ^e	2.0 cf/sf/month ^a	6,720
LA 29	Retail (shopping center)	61,000 sf	2.9 cf/sf/month	176,900
	Supermarket	54,000 sf	2.9 cf/sf/month	15,660
	Apartments	350 du	4,011.5 cf/du/month	1,404,025
	<i>Movie Theater (removed)^f</i>	<i>(652 seats)</i> <i>(6,520 sf)^e</i>	<i>2.0 cf/sf/month^a</i>	<i>-13,040</i>
	<i>Retail (specialty) (removed)</i>	<i>(24,000 sf)</i>	<i>2.9 cf/sf/month</i>	<i>-69,600</i>
	<i>Apartments (removed)</i>	<i>(42 du)</i>	<i>4,011.5 cf/du/month</i>	<i>-168,483</i>

Table IV.E-6 (Continued)
Cumulative Natural Gas Consumption

No.	Land Use	Size	Consumption Rate	Total (cf/month)
LA 30	Condominiums	49 du	4,011.5 cf/du/month	196,563
	Office	41,000 sf	2.0 cf/sf/month	82,000
	Specialty Retail	8,000 sf	2.9 cf/sf/month	23,200
LA 31	Office	146,708 sf	2.0 cf/sf/month	293,416
LA 32	Medical Use	1,500,000 sf	2.0 cf/sf/month	3,000,000
LA 33	Luxury Business Hotel	134 rooms (67,000 sf) ^c	4.8 cf/sf/month	321,600
	High-Rise Condominiums	10 du	4,011.5 cf/du/month	40,115
	Ground-Floor Retail	7,520 sf	2.9 cf/sf/month	21,808
LA 34	Health/Fitness Club	36,052 sf	2.9 cf/sf/month ^f	104,551
	Office (removed)	(36,052 sf)	2.0 cf/sf/month	-72,104
LA 35	Office	34,641 sf	2.0 cf/sf/month	69,282
LA 36	Apartments	19 du	4,011.5 cf/du/month	76,219
	Retail (specialty)	6,100 sf	2.9 cf/sf/month	17,690
	Retail (specialty) (removed)	(16,100 sf)	2.9 cf/sf/month	-46,690
LA 37	Hotel (residential) ^d	42 rooms (21,000 sf) ^c	4.8 cf/sf/month	100,800
LA 38	Condominiums	60 du	4,011.5 cf/du/month	24,0690
	Apartments (removed)	(34 du)	4,011.5 cf/du/month	-136,391
LA 39	Condominiums	119 du	4,011.5 cf/du/month	477,369
	Hotel (removed)	(66 du) (33,000 sf) ^c	4.8 cf/sf/month/cf/du/ month	-158,400
LA 40	Condominiums	64 du	4,011.5 cf/du/month	256,736
LA 41	Independent Living	62 du	4,011.5 cf/du/month	248,713
	Assisted Living	118 du	4,011.5 cf/du/month	473,357
LA 42	Office	12,000 sf	2.0 cf/sf/month	24,000
	Apartments	30 du	4,011.5 cf/du/month	120,345
LA 43	Apartments	19 du	4,011.5 cf/du/month	76,219
LA 44	Condominiums	35 du	4,011.5 cf/du/month	140,403
LA 45	Convenience Market	3,750 sf	2.9 cf/sf/month	10,875
LA 46	Condominiums	18 du	4,011.5 cf/du/month	72,207
	Residential (removed)	(1 du)	4,011.5 cf/du/month	-4,012
LA 47	Condominiums	72 du	4,011.5 cf/du/month	288,828
LA 48	Apartments	36 du	4,011.5 cf/du/month	144,414
	Retail	8,485 sf	2.9 cf/sf/month	24,607
LA 49	Apartments	111 du	4,011.5 cf/du/month	445,277
	Retail	7,000 sf	2.9 cf/sf/month	20,300

Table IV.E-6 (Continued)
Cumulative Natural Gas Consumption

No.	Land Use	Size	Consumption Rate	Total (cf/month)
LA 50	Restaurant (fast food), Snack Shop	2,070 sf	4.8 cf/sf/month ^d	9,936
LA 51	Apartments	23 du	4,011.5 cf/du/month	92,265
	<i>Apartments (removed)</i>	<i>(17 du)</i>	<i>4,011.5 cf/du/month</i>	<i>-68,196</i>
LA 52	Condominiums	22 du	4,011.5 cf/du/month	88,253
LA 53	Office	25,000 sf	2.0 cf/sf/month	50,000
LA 54	Condominiums	16 du	4,011.5 cf/du/month	64,184
LA 55	Retail (shopping center)	358,881 sf	2.9 cf/sf/month	1,040,755
	Condominiums	262 du	4,011.5 cf/du/month	1,051,013
	<i>Office (removed)</i>	<i>(289,460 sf)</i>	<i>2.0 cf/sf/month</i>	<i>-578,920</i>
LA 56	Condominiums	483 du	4,011.5 cf/du/month	1,937,555
	<i>Bank (removed)</i>	<i>(9,150 sf)</i>	<i>2.9 cf/sf/month</i>	<i>-18,300</i>
	<i>Office (removed)</i>	<i>(6,700 sf)</i>	<i>2.0 cf/sf/month</i>	<i>-13,400</i>
	<i>Restaurant (removed)</i>	<i>(19,754 sf)</i>	<i>4.8 cf/sf/month^d</i>	<i>-94,819</i>
LA 57	Condominiums	177 du	4,011.5 cf/du/month	710,036
	Community-Serving Retail or Café	1,000 sf	2.9 cf/sf/month	2,900
	Private Club	20,000 sf	2.9 cf/sf/month	58,000
LA 58	Condominiums	94 du	4,011.5 cf/du/month	37,7081
LA 59	Condominiums	55 du	4,011.5 cf/du/month	220,633
LA 60	Apartments	61 du	4,011.5 cf/du/month	244,702
LA 61	Apartments	15 du	4,011.5 cf/du/month	60,173
LA 62	Church (with 230-seat sanctuary, offices)	18,143 sf	2.0 cf/sf/month	36,286
	<i>Church (removed)</i>	<i>(7,021 sf)</i>	<i>2.0 cf/sf/month</i>	<i>-14,042</i>
LA 63	Apartments	63 du	4,011.5 cf/du/month	252,725
LA 64	Apartments	10 du	4,011.5 cf/du/month	40,115
	Specialty Retail	14,000 sf	2.9 cf/sf/month	40,600
LA 65	Office	10,000 sf	2.0 cf/sf/month	20,000
LA 66	Discount Store	86,600 sf	2.9 cf/sf/month	251,140
	<i>Self Storage (removed)</i>	<i>(37,000 sf)</i>	<i>2.0 cf/sf/month</i>	<i>-74,000</i>
LA 67	Retail (less existing)	28,000 sf	2.9 cf/sf/month	81,200
	<i>Restaurant (removed)</i>	<i>(2,000 sf)</i>	<i>2.9 cf/sf/month</i>	<i>-5,800</i>
	<i>Automobile (removed)</i>	<i>(6,500 sf)</i>	<i>2.9 cf/sf/month</i>	<i>-18,850</i>
LA 68	Office	17,619 sf	2.0 cf/sf/month	35,238
LA 69	Apartment	45 du	4,011.5 cf/du/month	180,518
	Retail	7,950 sf	2.9 cf/sf/month	23,055
LA 70	Condominiums	16 du	4,011.5 cf/du/month	64,184
LA 71	Condominiums	158 du	4,011.5 cf/du/month	633,817
	<i>Apartments (removed)</i>	<i>(112 du)</i>	<i>4,011.5 cf/du/month</i>	<i>-449,288</i>

Table IV.E-6 (Continued)
Cumulative Natural Gas Consumption

No.	Land Use	Size	Consumption Rate	Total (cf/month)
LA 72	Condominiums	147 du	4,011.5 cf/du/month	589,691
	Restaurant (quality)	7,000 sf	4.8 cf/sf/month ^d	33,600
	Private Club	43,000 sf	2.9 cf/sf/month	124,700
	Hotel (St. Regis) (removed)	(297 room) (148,500 sf) ^c	4.8 cf/sf/month	-712,800
LA 73	Live/Work Condominiums	84 du	4,011.5 cf/du/month	336,966
LA 74	Car Care Center	5,000 sf	2.9 cf/sf/month	14,500
LA 75	Office	9,400 sf	2.0 cf/sf/month	18,800
LA 76	Apartments	538 du	4,011.5 cf/du/month	2,158,187
	Retail	266,800 sf	2.9 cf/sf/month	773,720
	Cement Plant (removed)	(131,578 sf)	2.0 cf/sf/month ^a	-263,156
	Stone Yard (removed)	(45,266 sf)	2.0 cf/sf/month ^a	-90,532
LA 77	Senior Housing	46 du	4,011.5 cf/du/month	184,529
	Office	4,500 sf	2.0 cf/sf/month	9,000
LA 78	New Car Sales Expansion	2,750 sf	2.9 cf/sf/month	7,975
LA 79	Parking Garage	1,000 spaces	— ^g	0
LA 80	Condominiums	5 du	4,011.5 cf/du/month	20,058
	Residential (removed)	(1 du)	4,011.5 cf/du/month	-4,012
LA 81	Museum	100,000 sf	2.9 cf/sf/month	290,000
	Private Events	800 seats (8,000 sf) ^e	2.0 cf/sf/month	16,000
	Museum (removed)	(69,477 sf)	2.9 cf/sf/month	-201,483
LA 82	School (high school)	350 students (7,000 sf) ^b	2.0 cf/sf/month ^a	14,000
	College (junior/community)	100 students (2,000 sf) ^b	2.0 cf/sf/month ^a	4,000
	High School (removed)	(200 students) (4,000 sf) ^b	2.0 cf/sf/month ^a	-8,000
	Junior college (removed)	(200 students) (4,000 sf) ^b	2.0 cf/sf/month ^a	-8,000
LA 83	Apartment	48 du	4,011.5 cf/du/month	192,552
	Office	1,500 sf	2.0 cf/sf/month	3,000
LA 84	Specialty Retail	28,000 sf	2.9 cf/sf/month	81,200
	Condominiums	138 du	4,011.5 cf/du/month	553,587
LA 85	Condominiums	29 du	4,011.5 cf/du/month	116,334
	Office	2,072 sf	2.0 cf/sf/month	4,144
	Retail	1,248 sf	2.9 cf/sf/month	3,619
	Apartments (removed)	(10 du)	4,011.5 cf/du/month	-40,115

Table IV.E-6 (Continued)
Cumulative Natural Gas Consumption

No.	Land Use	Size	Consumption Rate	Total (cf/month)
LA 86	Office	5,800 sf	2.0 cf/sf/month	11,600
LA 87	School (private high school)	340 students (6,800 sf) ^b	2.0 cf/sf/month ^a	13,600
City of Beverly Hills Projects				
BH 1	Health Spa	2,000 sf	2.9 cf/sf/month ^f	5,800
BH 2	Condominiums <i>Apartments (removed)</i>	23 du	4,011.5 cf/du/month	92,265
		(16 du)	4,011.5 cf/du/month	-64,184
BH 3	Sanctuary Multi-purpose room	14,811 sf	2.0 cf/sf/month ^a	29,622
		1,254 sf	2.0 cf/sf/month ^a	2,508
BH 4	Live Performance Theater	500 seats (5,000) ^e	2.0 cf/sf/month ^a	10,000
		Studio Theater / Rehearsal	150 seats (1,500) ^e	2.0 cf/sf/month ^a
	Classrooms	60 occ	— ^g	0
	Lobby	3,900 sf	2.0 cf/sf/month ^a	7,800
	Public Garage	430 spaces	— ^g	0
BH 5	Private School	120 students (2,400 sf) ^b	2.0 cf/sf/month ^a	4,800
BH 6	Retail Expansion of Art Gallery	1,750 sf	2.9 cf/sf/month	5,075
BH 7	Luxury Condominiums	252 du	4,011.5 cf/du/month	1,010,989
	Retail (various)	15,656 sf	2.9 cf/sf/month	45,402
	Restaurant	4,800 sf	4.8 cf/sf/month ^d	23,040
	<i>Department Store (removed)</i>	(220,000 sf)	2.9 cf/sf/month	-638,000
BH 8	Luxury Condominiums	120 du	4,011.5 cf/du/month	481,380
	Hotel	522 rooms (261,000 sf) ^c	4.8cf/sf/month	1,252,800
	Restaurant	12,270 sf	4.8cf/sf/month ^d	58,896
BH 9	Condominiums	13 du	4,011.5 cf/du/month	52,150
BH 10	Office Retail	259,613 sf	2.0 cf/sf/month	519,226
		38,407 sf	2.9 cf/sf/month	111,380
BH 11	General Office Medical-Dental Office	24,566 sf	2.0 cf/sf/month	49,132
		7,977 sf	2.0 cf/sf/month	15,954
BH 12	Condominiums	11 du	4,011.5 cf/du/month	44,127
BH 13	Hotel	42 rooms (21,000 sf) ^c	4.8 cf/sf/month	100,800
BH 14	Senior Congregation	76 du	4,011.5 cf/du/month	304,874
BH 15	Condominiums	40 du	4,011.5 cf/du/month	160,460

Table IV.E-6 (Continued)
Cumulative Natural Gas Consumption

No.	Land Use	Size	Consumption Rate	Total (cf/month)
BH 16	Retail	15,000 sf	2.9 cf/sf/month	43,500
BH 17	General Office	11,400 sf	2.0 cf/sf/month	22,800
	Shopping Center	30,700 sf	2.9 cf/sf/month	89,030
	High-Turnover Restaurant	1,800 sf	4.8 cf/sf/month ^d	8,640
BH 18	Office (general)	177,255 sf	2.0 cf/sf/month	354,510
	Retail (specialty)	22,875 sf	2.9 cf/sf/month	66,338
	Restaurant	8,000 sf	4.8 cf/sf/month ^d	38,400
BH 19	Hotel (with banquet facilities)	228 rooms (114,000 sf) ^c	4.8 cf/sf/month	547,200
	Condominiums	25 du	4,011.5 cf/du/month	100,288
	Spa (18 treatment rooms)	120 members (1,200 sf) ^h	2.9 cf/sf/month ^f	3,480
	Retail	791 sf	2.9 cf/sf/month	2,294
	Park	30,000 sf	— ^g	0
	Restaurant	2,230 sf	4.8 cf/sf/month ^d	10,704
	BH 20	Condominiums	3 du	4,011.5 cf/du/month
BH 21	Office	14,996 sf	2.0 cf/sf/month	29,992
	Retail (shopping center)	14,996 sf	2.9 cf/sf/month	43,488
BH 22	New Car Sales	150,300 sf	2.9 cf/sf/month	435,870
BH 23	Condominiums	54 du	4,011.5 cf/du/month	216,621
	Retail	8,400 sf	2.9 cf/sf/month	24,360
	Restaurant	5,600 sf	4.8 cf/sf/month ^d	26,880
BH 24	Condominiums	11 du	4,011.5 cf/du/month	44,127
BH 25	Condominiums	16 du	4,011.5 cf/du/month	64,184
	<i>Condominiums (removed)</i>	<i>(6 du)</i>	<i>4,011.5 cf/du/month</i>	<i>-24,069</i>
BH 26	Condominiums	3 du	4,011.5 cf/du/month	12,035
BH 27	Office	11,700 sf	2.0 cf/sf/month	23,400
	Retail	2,870 sf	2.9 cf/sf/month	8,323
	<i>Office (car rental) (removed)</i>	<i>(1,260 sf)</i>	<i>2.0 cf/sf/month</i>	<i>-2,520</i>
BH 28	General Office	60,856 sf	2.0 cf/sf/month	121,712
	Shopping Center	11,260 sf	2.9 cf/sf/month	32,654
	High-Turnover Restaurant	3,000 sf	4.8 cf/sf/month ^d	14,400
BH 29	Condominiums	16 du	4,011.5 cf/du/month	64,184
BH 30	Condominiums	37 du	4,011.5 cf/du/month	148,426
BH 31	Condominiums	21 du	4,011.5 cf/du/month	842,415
	Retail	4,800 sf	2.9 cf/sf/month	13,920
	<i>Retail (removed)</i>	<i>(2,500 sf)</i>	<i>2.9 cf/sf/month</i>	<i>-7,250</i>
BH 32	Retail	24,890 sf	2.9 cf/sf/month	72,181

Table IV.E-6 (Continued)
Cumulative Natural Gas Consumption

No.	Land Use	Size	Consumption Rate	Total (cf/month)
BH 33	Condominiums	11 du	4,011.5 cf/du/month	44,127
BH 34	Medical Office	14,000 sf	2.0 cf/sf/month	28,000
BH 35	Condominiums	27 du	4,011.5 cf/du/month	108,311
	<i>Condominiums (removed)</i>	<i>(14 du)</i>	<i>4,011.5 cf/du/month</i>	<i>-56,161</i>
BH 36	Medical Office	35,000 sf	2.0 cf/sf/month	70,000
BH 37	Condominiums	10 du	4,011.5 cf/du/month	40,115
	<i>Apartments (removed)</i>	<i>(4 du)</i>	<i>4,011.5 cf/du/month</i>	<i>-16,046</i>
BH 38	Condominiums	7 du	4,011.5 cf/du/month	28,081
BH 39	Synagogue Expansion	9,325 sf	2.0 cf/sf/month ^a	18,650
BH 40	Condominiums	34 du	4,011.5 cf/du/month	136,391
City of West Hollywood Projects				
WH 1	Café	1,200 sf	2.9 cf/sf/month	3,480
	High-Turnover Restaurant	6,888 sf	4.8 cf/sf/month ^d	33,062
	Outdoor Dining	4,232 sf	4.8 cf/sf/month ^d	20,314
	Spa	5,626 sf	2.9 cf/sf/month ^f	16,315
	Office	62 sf	2.0 cf/sf/month	124
	SoHo House	8,225 sf	2.9 cf/sf/month	23,853
	<i>Office (removed)</i>	<i>(8,225 sf)</i>	<i>2.0 cf/sf/month</i>	<i>-16,450</i>
	Quality Restaurant	993 sf	4.8 cf/sf/month ^d	4,766
	Dining/Bar Area	1,475 sf	4.8 cf/sf/month ^d	7,080
	SoHo House	6,744 sf	2.9 cf/sf/month	19,558
	<i>Office (removed)</i>	<i>(6,744 sf)</i>	<i>2.0 cf/sf/month</i>	<i>-13,488</i>
	Office	1,040 sf	2.0 cf/sf/month	2,080
	<i>Café (removed)</i>	<i>(1,040 sf)</i>	<i>4.8 cf/sf/month^d</i>	<i>4,992</i>
WH 2	Hotel	102 room (51,000 sf) ^c	4.8cf/sf/month	244,800
	Condominium	20 du	4,011.5 cf/du/month	80,230
	Time Share	46 du	4,011.5 cf/du/month	184,529
	Restaurant (outdoor dining)	5,710 sf	4.8 cf/sf/month ^d	27,408
	Day Spa	8,000 sf	2.9 cf/sf/month ^f	23,200
	Retail (specialty)	18,080 sf	2.9 cf/sf/month	52,432
	<i>Apartments (removed)</i>	<i>(8 du)</i>	<i>4,011.5 cf/du/month</i>	<i>-32,092</i>
WH 3	Medical Office	47,930 sf	2.0 cf/sf/month	95,860
	Retail	10,055 sf	2.9 cf/sf/month	29,160
	Restaurant	3,480 sf	4.8 cf/sf/month ^d	16,704
	<i>Restaurant (sushi) (removed)</i>	<i>(11,400 sf)</i>	<i>4.8 cf/sf/month^d</i>	<i>-54,720</i>

Table IV.E-6 (Continued)
Cumulative Natural Gas Consumption

No.	Land Use	Size	Consumption Rate	Total (cf/month)
WH 4	Hotel	196 rooms (98,000 sf) ^c	4.8cf/sf/month	470,400
	Apartment	4 du	4,011.5 cf/du/month	16,046
WH 5	Apartments	28 du	4,011.5 cf/du/month	112,322
	Condominiums	2 du	4,011.5 cf/du/month	8,023
	Senior Housing	26 du	4,011.5 cf/du/month	104,299
	<i>Residential (removed)</i>	<i>(2 du)</i>	<i>4,011.5 cf/du/month</i>	<i>-8,023</i>
WH 6	Apartments	3 du	4,011.5 cf/du/month	12,035
	<i>Residential (removed)</i>	<i>(1 du)</i>	<i>4,011.5 cf/du/month</i>	<i>-4,012</i>
WH 7	Condominiums	3 du	4,011.5 cf/du/month	12,035
	<i>Residential (removed)</i>	<i>(1 du)</i>	<i>4,011.5 cf/du/month</i>	<i>-4,012</i>
WH 8	Vons Supermarket Expansion	13,595 sf	2.9 cf/sf/month	39,426
WH 9	Restaurant	10,000 sf	4.8 cf/sf/month ^d	48,000
	Commercial	10,550 sf	2.9 cf/sf/month	30,595
	Condominiums	42 du	4,011.5 cf/du/month	168,483
	<i>Restaurant (removed)</i>	<i>(5,484 sf)</i>	<i>4.8 cf/sf/month^d</i>	<i>-26,323</i>
	<i>Automotive Repair (removed)</i>	<i>(8,845 sf)</i>	<i>2.9 cf/sf/month^f</i>	<i>-25,651</i>
WH 10	Mixed Use/Office	6,382 sf	2.0 cf/sf/month	12,764
	Luxury Dwelling Unit	1 du	4,011.5 cf/du/month	4,012
	<i>Single Family (removed)</i>	<i>(2 du)</i>	<i>6,665 cf/du/month</i>	<i>-13,330</i>
WH 11	Retail	20,105 sf	2.9 cf/sf/month	58,305
	Condominium	4 du	4,011.5 cf/du/month	16,046
WH 12	Retail	70,259 sf	2.9 cf/sf/month	203,751
	Apartments	195 du	4,011.5 cf/du/month	782,243
	Climate-Controlled Art and Wine Self-Storage	327,000 sf	4.8 cf/sf/month ^d	1,569,600
	<i>Retail (removed)</i>	<i>(38,740 sf)</i>	<i>2.9 cf/sf/month</i>	<i>-112,346</i>
	<i>Office (removed)</i>	<i>(23,470 sf)</i>	<i>2.0 cf/sf/month</i>	<i>-46,940</i>
WH 13	Retail	4,850 sf	2.9 cf/sf/month	14,065
	<i>Residential (removed)</i>	<i>(1 du)</i>	<i>4,011.5 cf/du/month</i>	<i>-4,012</i>
WH 14	Hotel	69 rooms (34,500 sf) ^c	4.8 cf/sf/month	165,600
	Condominiums	8 du	4,011.5 cf/du/month	32,092
	Specialty Retail	1,750 sf	2.9 cf/sf/month	5,075
	Quality Restaurant	2,680 sf	4.8 cf/sf/month ^d	12,864
WH 15	Medical Office	120,000 sf	2.0 cf/sf/month	240,000
WH 16	Commercial	9,898 sf	2.9 cf/sf/month	28,704
WH 17	Office	400,000 sf	2.0 cf/sf/month	800,000

Table IV.E-6 (Continued)
Cumulative Natural Gas Consumption

No.	Land Use	Size	Consumption Rate	Total (cf/month)
WH 18	Wholesale Rug Showroom	8,700 sf	2.9 cf/sf/month	25,230
WH 19	Retail	14,571 sf	2.9 cf/sf/month	42,256
	Condominiums	7 du	4,011.5 cf/du/month	28,081
	<i>Commercial (removed)</i>	<i>(6,745 sf)</i>	<i>2.9 cf/sf/month</i>	<i>-19,561</i>
	<i>Residential (removed)</i>	<i>(1 du)</i>	<i>4,011.5 cf/du/month</i>	<i>-4,012</i>
WH 20	Retail	6,905 sf	2.9 cf/sf/month	20,025
	<i>Retail (removed)</i>	<i>(3,523 sf)</i>	<i>2.9 cf/sf/month</i>	<i>-10,217</i>
WH 21	Retail (southern lot)	30,700 sf	2.9 cf/sf/month	89,030
	Retail (northern lot)	8,523 sf	2.9 cf/sf/month	24,717
	Apartments	10 du	4,011.5 cf/du/month	40,115
	<i>Office (removed)</i>	<i>(7,560 sf)</i>	<i>2.0 cf/sf/month</i>	<i>-15,120</i>
	<i>Commercial (removed)</i>	<i>(6,075 sf)</i>	<i>2.9 cf/sf/month</i>	<i>-17,618</i>
WH 22	Retail	18,260 sf	2.9 cf/sf/month	52,954
	Restaurant	1,600 sf	4.8 cf/sf/month ^d	7,680
	Medical Office	18,970 sf	2.0 cf/sf/month ^c	37,940
	Apartment	6 du	4,011.5 cf/du/month	24,069
	<i>Commercial (removed)</i>	<i>(13,535 sf)</i>	<i>2.9 cf/sf/month</i>	<i>-39,252</i>
	<i>Single Family (removed)</i>	<i>(1 du)</i>	<i>6,665 cf/du/month</i>	<i>-6,665</i>
WH 23	Apartments	3 du	4,011.5 cf/du/month	12,035
	<i>Residential (removed)</i>	<i>(1 du)</i>	<i>4,011.5 cf/du/month</i>	<i>-4,012</i>
WH 24	Condominiums	105 du	4,011.5 cf/du/month	421,208
WH 25	Condominiums	6 du	4,011.5 cf/du/month	24,069
	Retail	500 sf	2.9 cf/sf/month	1,450
WH 26	Retail (intensification existing use)	8,021 sf	2.9 cf/sf/month	23,261
	<i>Showroom (removed)</i>	<i>(8,021 sf)</i>	<i>2.9 cf/sf/month</i>	<i>-23,261</i>
WH 27	Office (addition to medical office)	478 sf	2.0 cf/sf/month	956
WH 28	Condominiums	135 du	4,011.5 cf/du/month	541,553
	Senior Housing	42 du	4,011.5 cf/du/month	168,483
Subtotal Los Angeles Related Projects				23,653,811
Subtotal Beverly Hills Related Projects				7,595,316
Subtotal West Hollywood Related Projects				6,940,727
Subtotal All Related Projects				38,189,854
Subtotal Option A (Net Increase)				818,224
Total Cumulative Natural Gas Consumption with Option A				39,008,078
Subtotal Option B Without Office Scenario (Net Increase)				1,381,688
Total Cumulative Natural Gas Consumption with Option B Without Office Scenario				39,571,542

**Table IV.E-6 (Continued)
Cumulative Natural Gas Consumption**

No.	Land Use	Size	Consumption Rate	Total (cf/month)
<p><i>sf = square feet</i> <i>du = dwelling unit</i> <i>cf = cubic feet</i> All calculations rounded to the nearest whole number. ^a No rate for this use exists so the office rate was utilized. ^b Assumes each student requires 20 sf. ^c Assumes each bed/hotel room requires 500 sf. ^d No rate for this use exists so the hotel/motel rate was utilized. ^e Assumes each seat requires 10 sf. ^f No rate for this use exists so the retail/shopping center rate was utilized. ^g These projects do not have an assigned consumption rate, and in the case of parking lots, outdoor areas, and parks, the natural gas consumption is considered minimal. ^h Assumes each member requires 10 sf. Source (consumption rates): SCAQMD, CEQA Air Quality Handbook, Table A9-12-A, 1993. Source (calculations): Matrix Environmental, 2010.</p>				

0.02 percent of SCG’s existing capacity (6.0 Bcf per day), and approximately 0.91 percent of SCG’s forecasted daily additions to its storage capacity (145 MMcfd by 2014). Of these two measures of cumulative supply, the incremental contribution from the Option B Without Office Scenario would represent approximately 0.0007 percent and 0.03 percent, respectively.

It is also noted that the majority of the 155 related projects are redevelopment projects of sites that are currently served by SCG, therefore reducing the corresponding net increases in natural gas demands associated with these related projects. In addition many are relatively small in nature with corresponding projected consumption rates.

As previously noted, SCG operates in an environment where interstate pipeline capacity exists in excess of anticipated demand. Therefore, there is adequate pipeline capacity to deliver natural gas to the SCG service area. Like the Proposed Project, applicants of the related projects would be responsible for paying any required connection costs. SCG undertakes expansion and/or modification of the natural gas infrastructure to serve future growth within its service area as part of the normal process of providing service. As such, cumulative impacts on natural gas infrastructure would be less than significant under both Option A and Option B.

Overall, the cumulative demand for natural gas that would result from implementation of either Option A or Option B and the related projects is anticipated to be within the future service capabilities of SCG. Therefore, cumulative impacts related to natural gas supplies and infrastructure would be less than significant under both Option A and Option B. No mitigation measures are required.

As discussed above, the potential exists for the Project buildout year to be extended by 12 years to coincide with the anticipated expiration of the term of the DA in 2027. In the unlikely event that this was to happen, the conclusions regarding cumulative impacts to natural gas supplies and facilities would not change. According to the most recent California Gas Report, SCG projects gas demand for all its market sectors to contract at an annual average rate of approximately 0.212 percent from 2010 to 2030.⁵² Demand is expected to be virtually flat for the next 21 years due to modest economic growth, CPUC-mandated demand management goals, renewable electricity goals, decline in commercial and industrial demand, and continued increased use of non-utility pipeline systems by enhanced oil recovery customers and savings linked to advanced metering modules. By comparison, the previous (2008) California Gas Report projected an annual growth rate of 0.02 percent from 2008 to 2030. The difference between the two forecasts is caused by the slump in the housing market for the next few years, a reduced employment forecast, a higher gas price projection, and aggressive energy efficiency savings goals.⁵³ Given the overall decrease in anticipated areawide demand by 2027, the reliability of existing and future supply sources, and the very small percentage of the existing demand that the Proposed Project and the related projects would comprise, cumulative impacts under Option A and Option B (both Scenarios) would continue to be less than significant if the Project buildout year were to be extended to the anticipated expiration of the term of the requested DA in 2027.

d. Mitigation Measures

Impacts relating to natural gas supplies and infrastructure would be less than significant under both Option A and Option B. Therefore, no mitigation measures are required.

e. Level of Significance After Mitigation

Impacts to natural gas supplies and infrastructure would be less than significant under both Option A and Option B.

⁵² *California Gas and Electric Utilities, 2010 California Gas Report, op. cit.*

⁵³ *Ibid.*