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L.4 Utilities - Electricity

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IV. Environmental Impact Analysis

L.4 Utilities - Electricity

1. Introduction

The following section is based on the Electrical System Technical Report prepared by Incledon Consulting Group (2010) for the Project. The full text of the report is included as Technical Appendix N-3 to this Draft EIR.

The analysis of utility impacts focuses upon the relationship between supply and demand. In general, the supply side involves both the availability of the resource and the ability to convey the resource. The demand side involves the net incremental demand generated by the Project.

Electricity is a consumptive utility, where a resource is consumed by the Project. In the case of electricity, the resource is man-made, rather than a natural resource. Since there are a number of different technologies available to generate electricity, generating capacity is not typically an issue so long as additional demand is within planning parameters. Conveyance (via transmission lines) is also typically responsive to market demands and infrastructure is commonly already in place within a built environment. The delivery of electricity involves system components including substations and distribution transformers that “step-down” or lower transmission line power (voltage) to a level suitable for on-site distribution and use. The capacity of the local system is typically a function of the adequacy of system components to handle distribution.

The analysis below describes the existing on-site electrical suppliers and respective distribution systems that currently service the Project Site. Additionally, the discussion of existing on-site conditions includes an analysis of the existing annual electrical consumption and demand by land use for locations within the City and the unincorporated County of Los Angeles portions of the Project Site. Further, this section

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527 Electrical demand, for the purposes of this analysis, is defined as the maximum amount of electricity used at the Project Site at any given point in time.
analyzes the proposed Project’s use of electricity, based on the projected electrical consumption and demand attributable to the proposed Project. Based on this analysis a determination is made as to whether the current electrical suppliers have adequate supply to meet the Project’s future consumption and whether the existing distribution systems can support the Project’s forecasted demand.

2. Environmental Setting

a. Regional Conditions

The City of Los Angeles Department of Water and Power provides electrical service to the portions of the Project Site that are within the City of Los Angeles (City), which is approximately 24 percent of the Project Site. Southern California Edison provides electrical service throughout the Los Angeles County (County) portion of the site, which is approximately 76 percent of the Project Site. Southern California Edison and the Los Angeles Department of Water and Power generate power from a variety of different sources that include nuclear power, hydro-electric, natural gas and other fuels. Southern California Edison supplies power to the County portions of the Project Site through its Eagle Rock transmission grid system which draws power from as many as 50 power generation plants located both within and outside of Southern California. The Los Angeles Department of Water and Power supplies power to the Project Site through the Los Angeles transmission system, which similarly derives power from as many as 25 electric generation plants located both within and outside Southern California. Currently, the Los Angeles Department of Water and Power delivers a total of 24,598 gigawatt hours (GWh) of electricity across the entire Los Angeles Department of Water and Power service area \(^{528}\) and Southern California Edison delivers a total of 88,700 GWh across its entire service area \(^{529}\) for a combined total of 113,298 GWh across both service areas combined.

b. Local Area Conditions

The Los Angeles Department of Water and Power currently provides twin 34.5 kilovolts (kV) service to the City portion of the Project Site from its Toluca Receiving Station E, located at 5740 Whittnall Highway. The Los Angeles Department of Water and Power, 2007 Integrated Resource Plan, Table B-1: Trend Case Energy Sales and Peak Demand.

Edison International, Southern California Edison Backgrounder, 080404.
Power supplies electrical power from conduits located in the existing Universal Hollywood Drive and Lankershim Boulevard and from overhead lines along Barham Boulevard directly to the buildings within the City portion of the Project Site without any intermediate substations. Smaller individual loads in the surrounding area of the Project Site are supplied by the Los Angeles Department of Water and Power’s 4.8 kV distribution system that originates from Arch Distributing Stations DS-98 and DS-10 in Hollywood or DS-115 located at Laurel Canyon Boulevard and Mulholland Drive.

Southern California Edison provides two 66 kV feeders from the MacNeil Substation located at Chandler Boulevard and Cordova Street in Burbank and the Beverly Hills Substation, located at Foothill Road and Civic Center Drive in Beverly Hills. The two overhead 66 kV lines enter the Project Site at the northwest corner and supply power to the Edison Universal Substation and the Studio Master Substation located on the Project Site along the Los Angeles River Flood Control Channel.

(1) On-Site Conditions

Electrical power is provided to the various on-site uses within the County portion of the Project Site by two on-site electrical substations. The Edison Universal Substation, which is owned by Southern California Edison, is located at the northwest corner of the Project Site and provides power to restaurants, tenant spaces owned by the Applicant in Universal CityWalk, theme park attractions, and the Technicolor buildings. The Edison Universal Substation has a dual 66 kV feed. There are two 11 million volt amperes (MVA) transformers with a 12 kV switchgear configuration. The present demand load capacity of the Edison Universal Substation is 22 MVA. The Edison Universal Substation is sized so that equipment can be added, allowing expansion up to 40 MVA for future loads.

The Studio Master Substation, which is owned by the Applicant and fed by Southern California Edison, is also located in the northwest corner of the Project Site and provides power from Southern California Edison to NBC Universal-owned and operated facilities, within the County portion of the Project Site. The substation has a 66 kV dual feed with a tie switch between them, one as a primary and one as a back-up. The Studio Master Substation contains two 20 MVA, fan-cooled transformers and a 12 kV switchgear configuration with a tie breaker. The existing underground distribution system feeds all points of electrical power use from at least two different directions (providing a loop system) with switching capability to achieve redundancy and to provide additional power to areas during times of peak demand. In most cases, the loops are routed in different directions to ensure a higher degree of reliability against loss of electrical power. The Studio Master Substation has an existing demand load capacity of 40 MVA.
The Southern California Edison power source has been reliable for many years at the Project Site. The electrical power is distributed via cables in underground conduits to the buildings, attractions, and other facilities that use power within the County portion of the Project Site.

The 12 kV system is distributed throughout the Project Site from both substations via cable in underground conduits. Electrical power conduits are installed with many conduits in the same trench, known as a bank. In most cases, spare conduits are included in the conduit banks. Spare (or empty) conduits are provided so that additional electrical power lines can be installed at a later date without having to dig up on-site streets.

The original distribution system at the Project Site is rated at 2.4 kV and originates at the Studio Power House (Building #2243), which is located between soundstages 4 and 5. The 2.4 kV system consists of two 5000 kilo volt amperes (kVA), 12 kV/2.4 kV, 3-phase transformers that connect to three 2.4 kV switchgear lineups. The 2.4 kV distribution is reliable and is generally used for loads under 1500 kVA. The 2.4 kV system is distributed via 5 kV, 500 million circular mils (MCM) XPL, shielded cables in 4-inch underground conduits.

For areas of the Project Site supplied by the Los Angeles Department of Water and Power, power is provided through lines in conduits underneath the streets and above-ground power poles located within the existing Universal Hollywood Drive and Barham Boulevard. Power from the Los Angeles Department of Water and Power is supplied directly to the land uses within the City portion of the Project Site without substations. Presently, the Los Angeles Department of Water and Power’s 4.8 kV circuit capacity that serves the Project Site and surrounding areas is insufficient to supply substantial additional new loads.530

Total current electrical consumption at the Project Site, based on information provided by the Los Angeles Department of Water and Power and Southern California Edison, is approximately 123.8 GWh annually. This total represents approximately 0.1 percent of the total annual electricity consumption across the combined Los Angeles Department of Water and Power and Southern California Edison service areas. The electricity needs of the Project Site are currently adequately provided by the existing on-site Southern California Edison distribution system, via the two existing on-site electrical

530 Written correspondence from Hoddy Rupp, Los Angeles Department of Water and Power, Electrical Substation Planning, dated April 14, 2008.
substations: the Edison Universal Substation and the Studio Master Substation, and by existing Los Angeles Department of Water and Power lines that directly serve the City portions of the Project Site.

3. Environmental Impacts

a. Methodology

The South Coast Air Quality Management District has developed electricity consumption factors for various land uses based on the square footage of development.531 Applying the South Coast Air Quality Management District factors to the proposed building square footages and use types, an estimate was made as to the future consumption at the proposed Project. Information was obtained from the Los Angeles Department of Water and Power and Southern California Edison as necessary to define the existing electrical systems. A determination was made by the respective utility companies as to whether the existing electrical delivery systems would be able to supply the projected annual electrical consumption and support the demand of the proposed Project, whether improvements may be required, and how systems would be maintained. Given the existing capacity of the Project Site’s electrical system and future projected consumption and demand, an assessment was made of the proposed Project’s impacts. Where Project impacts exceed the capacity of the system, specific design features and mitigation measures have been recommended to mitigate these impacts.

b. Thresholds of Significance

The City of Los Angeles CEQA Thresholds Guide (2006) states that a 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 alternations to existing facilities;

- Whether and when the needed infrastructure was anticipated by adopted plans; and

---

531 South Coast Air Quality Management District, California Environmental Quality Act Air Quality Handbook, Appendix 9, Table A9-11-A, 1993.
• The degree to which the project design and/or operations incorporate energy conservation measures, particularly those that go beyond City requirements.

Based on these factors the Project would have a significant impact if:

• The Project would result in an increase in demand for electricity that exceeds available supply or distribution infrastructure capabilities.

• The design of the Project fails to incorporate energy conservation measures that go beyond existing requirements.

c. Project Design Features

Project design, construction, and operations would occur in accordance with the following project design features:

• Where available, spare conduits in the existing underground cable and conduit system within the Project Site would be utilized in lieu of providing new conduits. For areas with no spare conduits, additional conduits would be provided. New cables, electrical lines, and facilities would be provided for the Project in currently underdeveloped areas.

• Under the proposed Project, additional power would be supplied to meet the increased demand for the County portion of the Project Site through relocation of the Studio Master Substation and upgrades to the substation owned and operated by Southern California Edison. Specifically:
  
  o A new Applicant-owned and operated distribution substation would be located east of the existing Studio Master Substation. The Applicant-owned facility currently housed within the existing Studio Master Substation would be relocated and expanded with new equipment to the new location.

  o Additional electricity would be supplied to the existing Studio Master Substation through an additional 66kV transmission line for an additional 60 MVA for the Project Site, which will increase the total capacity of the existing Studio Master Substation to 100 MVA. The substation would also be equipped with an outdoor 66kV Gas Insulated Switchgear which would be configured in an operating and transfer bus arrangement. All 66kV lines and transformer bank feeders would enter the Gas Insulated Switchgear equipment by means of an underground riser pedestal. The substation would also have a Mechanical-Electrical Equipment Room to house all controls, switches, relay protection equipment, alarms, meters, batteries, HVAC and the station AC and DC distribution panels.
Once expanded, operation of the existing Studio Master Substation facility would transfer from the Applicant to Southern California Edison, and the substation would be connected to the Edison Universal Substation via subterranean electrical lines. The Edison Universal Substation has an existing capacity of 22 MVA. The combined substations that would be operated by Southern California Edison would have a total capacity of 122 MVA and would supply power to the new Applicant-owned and operated distribution substation, which would distribute electricity within the County portion of the Project Site.

In addition to the expansion of the Southern California Edison equipment, there may also be the need for a Southern California Edison-owned distribution station located on-site. The distribution station would serve as a step-down transformer to distribute power throughout the County portion of the Project Site and would occupy an area of up to approximately one acre.

The private on-site electrical system would have new electrical lines to serve new buildings constructed as part of the Project.

Under the No Annexation scenario, in addition to the improvements described above, a new 16 KV distribution line from the MacNeil Substation to the Project Site would be installed consistent with Southern California Edison requirements, along with associated infrastructure, including transformers and switches in a pad-mounted enclosure on-site, to serve the residential units that would be located within the County portion of the Project Site. In the event electricity is supplied by Southern California Edison facilities other than the MacNeil Substation, a new substation may be provided on the County portion of the Project Site to serve the new residential demand under the No Annexation scenario.

The existing Los Angeles Department of Water and Power 34.5-kV system would be reinforced and a new distribution system would be installed. The new Los Angeles Department of Water and Power distribution system would be a 34.5-kV circuit with local transformer stations installed on the Project Site. This Los Angeles Department of Water and Power distribution station would be a new and separate non-dedicated 34.5-kV to 4.8-kV distribution station also installed on the Project Site. The new distribution station would be located in the southeastern portion of the Project Site, with easy access to Barham Boulevard. The Applicant would be responsible for grading the site, providing access to the site, and appropriate landscaping that would screen the substation from view from off-site locations. The Los Angeles Department of Water and Power would be responsible for acquisition of the land and installation of the substation itself. The substation would be approximately 15,000 to 20,000 square feet in area. The exact location of the distribution station, which would be within City jurisdiction, would be determined as plans for the Project are further refined. Equipment within the distribution station would be metal-encased and grounded.
and all electric supply cables for the Mixed-Use Residential Area would be installed in underground conduits. This new Los Angeles Department of Water and Power distribution station would receive power that originates from the Los Angeles Department of Water and Power’s Toluca Receiving Station or through the Los Angeles Department of Water and Power’s Arch Distributing Station 4. This new 34.5-kV circuit that would be required would originate from either the Toluca Receiving Station or Arch Distributing Station 4, depending on which station provides the new power needed. This new off-site circuit would require off-site construction from the chosen Los Angeles Department of Water and Power station location (Toluca Receiving Station or Arch Distributing Station 4) to the point of connection to the Project Site’s on-site 34.5-kV circuit. These transmission lines may travel to the Project Site via existing overhead pole lines or via existing underground conduit.

- The Applicant shall consult with Los Angeles Department of Water and Power’s Efficiency Solutions Business Group for assistance with energy conservation design features, for Project development occurring within the City of Los Angeles.

- Each of the Project’s buildings would be subject to the State Energy Conservation Standards for New Residential and Non-Residential Buildings (Title 24, Part 6, Article 2, California Code of Regulations). The Project shall incorporate energy conservation measures to exceed Title 24 (2005) requirements by 15 percent. In the event Title 24 is amended such that the energy conservation requirements exceed Title 24 (2005) by more than 15 percent, the Project would comply with the amended Title 24.

The following measures would be incorporated as part of the proposed Project design:

- Install efficient lighting and lighting control systems.
- Install light colored “cool” roofs.
- Install energy efficient heating and cooling systems, appliances (e.g., ENERGY STAR) and equipment, and control systems.
- Install LEDs for traffic and street lighting.
- Use efficient pumps and motors for pools and spas within Mixed-Use Residential Area residential development.
- Provide education on energy efficiency, water conservation, waste diversion, and recycling services to the Applicant’s employees through new employee orientation materials and three times annually through company website, exhibits, or meetings on energy conservation.
d. Project Impacts

(1) Construction Impacts

Electrical power would be consumed to construct the new buildings and facilities of the proposed Project. This demand would be supplied from existing electrical services within the Project Site and would not affect other services as there is sufficient existing capacity to meet the Project’s construction demands. Therefore, because there is sufficient existing electrical service to support the Project’s construction activities, impacts would be less than significant. Construction impacts associated with the installation of on-site upgrades to the electrical system are addressed in Sections IV.C, Noise, and IV.H, Air Quality, of this Draft EIR. Potential environmental impacts associated with off-site upgrades to the electrical system are analyzed below.

(2) Operational Impacts

(a) Los Angeles Department of Water and Power Service Area

(i) Electricity Consumption

Table 171 on page 1936, presents the forecast of the increase in electrical consumption based on the net increase in development under the proposed Project. As shown in this table the projected increase in electrical consumption under the proposed Project for the portion of the Project to be located under City jurisdiction, and therefore serviced by the Los Angeles Department of Water and Power, is estimated to be 23,551,117 kWh per year at total Project build out. The Los Angeles Department of Water and Power forecasts that energy consumption within its service area would increase from 24,598 GWh per year in 2008 to 31,142 GWh per year in 2030, an increase of 6,544 GWh over the next 22 years. Based on the proposed Project’s projected electrical consumption of 23,551,117 kWh per year within the City portion of the Project Site, this increase in consumption accounts for only 0.36 percent of the Los Angeles Department of Water and Power’s projected increase in electrical consumption over the next 21 years. The Project’s percentage of the total increase in consumption is sufficiently low to support the conclusion that the Project’s electricity consumption within the Los Angeles Department of Water and Power service area would be less than significant. Additionally, this projection does not account for the Project’s incorporation of the previously outlined project

532 Los Angeles Department of Water and Power, 2007 Integrated Resource Plan, Table B-1.
design features and energy conservation measures listed above, which would decrease the electrical consumption of the proposed Project.

(ii) Electricity Demand

As shown in Table 172 on page 1937, the projected electrical demand associated with the operation of the proposed Project would be 17,338 kVA for the portion of the Project Site that would be located within the City’s jurisdiction, and therefore served by the Los Angeles Department of Water and Power. The Los Angeles Department of Water and Power has indicated that the existing distribution facilities do not have the capacity to
supply the increase in electrical demand for the City portion of the Project Site under the proposed Project.\textsuperscript{533} With the implementation of the identified project design features, adequate capacity would be available and a less than significant impact would result.

The Los Angeles Department of Water and Power has indicated that the existing system would need to be reinforced and a new distribution system would need to be installed for the City portion of the Project Site. The Los Angeles Department of Water and Power would address this by constructing a new 34.5 kV circuit off-site and a new separate non-dedicated distribution station on or near the Project Site to reduce the 34.5 kV to

\textsuperscript{533} Correspondence from Charles Holloway, Supervisor of Environmental Assessment, Los Angeles Department of Water and Power, March 21, 2007.

Table 172
Project Electrical Demand

<table>
<thead>
<tr>
<th></th>
<th>Quantity (units/sf/rooms)</th>
<th>Demand Rate (VA/room/sf or unit)</th>
<th>Demand (kVA)</th>
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<tr>
<td><strong>City (LADWP Service Area)</strong></td>
<td></td>
<td></td>
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<tr>
<td>Residential\textsuperscript{a}</td>
<td>2,937 units</td>
<td>5,000</td>
<td>14,685</td>
</tr>
<tr>
<td>Residential Retail</td>
<td>115,000 sf</td>
<td>7.5</td>
<td>862.5</td>
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<tr>
<td>Community Serving</td>
<td>65,000 sf</td>
<td>6.8</td>
<td>442.0</td>
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<tr>
<td>Studio</td>
<td>48,020 sf</td>
<td>7.2</td>
<td>345.7</td>
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<tr>
<td>Studio Office</td>
<td>232,552 sf</td>
<td>6.4</td>
<td>1,488.3</td>
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<tr>
<td>Child Care Center</td>
<td>(10,000) sf</td>
<td>10.1</td>
<td>(101.0)</td>
</tr>
<tr>
<td>Entertainment</td>
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<td>(384.4)</td>
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<tr>
<td><strong>Subtotal</strong></td>
<td></td>
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<td><strong>County (SCE Service Area)</strong></td>
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<tr>
<td>Studio</td>
<td>259,929 sf</td>
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<td>1,871.5</td>
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<tr>
<td>Studio Office</td>
<td>199,774 sf</td>
<td>6.4</td>
<td>1,278.6</td>
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<tr>
<td>Child Care Center</td>
<td>15,000 sf</td>
<td>10.1</td>
<td>151.5</td>
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<tr>
<td>Entertainment</td>
<td>187,895 sf</td>
<td>9.1</td>
<td>1,709.8</td>
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<tr>
<td>Entertainment Retail</td>
<td>39,216 sf</td>
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<td>443.1</td>
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<tr>
<td>Amphitheater</td>
<td>(50,600) sf</td>
<td>12.7</td>
<td>(642.6)</td>
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<tr>
<td>Office</td>
<td>495,406 sf</td>
<td>5.1</td>
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<tr>
<td>Hotel\textsuperscript{b}</td>
<td>500 rooms</td>
<td>4,320</td>
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<tr>
<td><strong>Subtotal</strong></td>
<td></td>
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<td>9,498.5</td>
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<tr>
<td><strong>Total</strong></td>
<td></td>
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<td>26,836.6</td>
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\textsuperscript{a} Mixed-Use Residential Area demand provided by Butsko.
\textsuperscript{b} Assumes a 450,000 square foot hotel.

4.8 kV. Additionally, the Los Angeles Department of Water and Power will need to reinforce the existing system and electrical service circuit. The construction of the new Los Angeles Department of Water and Power electrical distribution station would occur in accordance with the project design features outlined in this section of the Draft Environmental Impact Report. In addition to these improvements, additional electrical lines would be installed both on and off the Project Site. These electrical lines may be added to existing above-ground electrical poles or may be undergrounded. An analysis of the impacts associated with improving the off-site electrical lines is provided below.

(b) Southern California Edison Service Area

(i) Electricity Consumption

As shown above in Table 171 on page 1936, the total projected electrical consumption of the proposed Project for the portion of the Project Site serviced by Southern California Edison is 34,827,053 kWh per year.

While it is recognized that Southern California Edison will be increasing the amount of electricity delivered within its service area, Southern California Edison has not published any forecasts of future demand. Lacking any forecast data, the Project’s consumption is compared to Southern California Edison’s current electricity delivery for the purposes of this analysis. Based on the proposed Project’s forecasted electrical consumption of 34,827,053 kWh per year within the County portion of the Project Site, the increase in consumption only accounts for approximately 0.04 percent of electricity consumption by Southern California Edison customers. The Project’s percentage of electricity consumption by current Southern California Edison customers is sufficiently low to support the conclusion that the Project’s electricity consumption within the Southern California Edison service area would be less than significant. Additionally, this projection does not account for the Project’s incorporation of the previously outlined project design features and energy conservation measures listed above, which would decrease the electrical consumption of the proposed Project.

(ii) Electricity Demand

As shown in Table 172 on page 1937, the operation of the proposed Project would increase electrical demand in the portion of the Project Site located within the County jurisdiction, and therefore served by Southern California Edison, by a total of 9,499 kVA. Southern California Edison has indicated that it has the capacity in its existing supply system to handle the increase in demand for power supplied by its facilities. However, in order to deliver this increased demand to the Project Site, a new 66 kV line would need to be installed and this installation requires expansion of the Southern California Edison facilities on-site. With this new line and expanded Studio Master Substation, which will be
connected to the existing Edison Universal Substation and supply electricity to the Applicant’s new and expanded on-site distribution substation, increased electrical loads can be supplied and distributed on-site, thereby resulting in a less than significant impact.

(3) Impacts Under the No Annexation Scenario

(a) Operation

(i) Los Angeles Department of Water and Power Service Area

Electricity Consumption

Should the proposed annexation not occur, less of the proposed residential development would be located within the City jurisdiction served by the Los Angeles Department of Water and Power, but greater amounts of the other types of proposed commercial uses, including, but not limited to, the development of 500 hotel rooms, and related hotel facilities, would occur within the City. The net effect of these changes is that there would be less of an impact on the Los Angeles Department of Water and Power than under the proposed Project. The total projected electrical consumption within the Los Angeles Department of Water and Power service area under the No Annexation scenario is 23,824,073 kWh per year, an increase of approximately one percent when compared to the proposed Project. This total increase in the Los Angeles Department of Water and Power consumption under the No Annexation scenario (shown in Table 173 on page 1940) represents 0.36 percent of the total Los Angeles Department of Water and Power projected increase in consumption through 2030 over the next 21 years. As is the case with the proposed Project, this very low percentage increase of total incremental consumption within the Los Angeles Department of Water and Power service area would constitute a less than significant impact relative to consumption under the No Annexation scenario.

534 Under existing jurisdictional boundaries the area designated in the proposed City Specific Plan as Planning Subarea 10 is located partly in the City of Los Angeles and partly in unincorporated County of Los Angeles. For purposes of the “No Annexation” analysis it was assumed that the 250,000 square feet of studio office proposed in Planning Subarea 10 would not be split between the two jurisdictions and was assumed for the analysis to be within the City. In the event that the proposed annexation does not occur as proposed and Planning Subarea 10 is instead within the unincorporated County portion of the Project Site, the additional development that would occur in the County would not result in impacts greater than those identified in this analysis.
Table 173
Electrical Consumption Under the No Annexation Scenario

<table>
<thead>
<tr>
<th></th>
<th>Quantity (units/sf/rooms)</th>
<th>Consumption Rate a (kWh/sf or unit per year)</th>
<th>Consumption (kWh/year)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>City (LADWP Service Area)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Residential</td>
<td>1,178 units</td>
<td>5,626.5</td>
<td>6,628,017</td>
</tr>
<tr>
<td>Residential Retail b</td>
<td>46,128 sf</td>
<td>27.11</td>
<td>1,250,530</td>
</tr>
<tr>
<td>Community Serving b</td>
<td>26,072 sf</td>
<td>27.11</td>
<td>706,812</td>
</tr>
<tr>
<td>Studio c</td>
<td>77,220 sf</td>
<td>36.63</td>
<td>2,828,569</td>
</tr>
<tr>
<td>Studio Office</td>
<td>244,430 sf</td>
<td>12.95</td>
<td>3,165,368</td>
</tr>
<tr>
<td>Child Care Center</td>
<td>(10,000 sf)</td>
<td>5.90</td>
<td>(59,000)</td>
</tr>
<tr>
<td>Entertainment c</td>
<td>67,100 sf</td>
<td>60.73</td>
<td>4,074,983</td>
</tr>
<tr>
<td>Entertainment Retail b</td>
<td>17,400 sf</td>
<td>27.11</td>
<td>471,714</td>
</tr>
<tr>
<td>Office c</td>
<td>24,400 sf</td>
<td>12.95</td>
<td>315,980</td>
</tr>
<tr>
<td>Amphitheater c</td>
<td>(2,500) sf</td>
<td>14.56</td>
<td>(36,400)</td>
</tr>
<tr>
<td>Hotel d</td>
<td>500 rooms</td>
<td>8,955.00</td>
<td>4,477,500</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td></td>
<td></td>
<td>23,824,073</td>
</tr>
<tr>
<td><strong>County (SCE Service Area)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Studio c</td>
<td>230,729 sf</td>
<td>36.63</td>
<td>8,451,603</td>
</tr>
<tr>
<td>Studio Office</td>
<td>187,896 sf</td>
<td>12.95</td>
<td>2,433,253</td>
</tr>
<tr>
<td>Child Care Center</td>
<td>15,000 sf</td>
<td>5.90</td>
<td>88,500</td>
</tr>
<tr>
<td>Entertainment c</td>
<td>78,555 sf</td>
<td>60.73</td>
<td>4,770,645</td>
</tr>
<tr>
<td>Entertainment Retail b</td>
<td>21,816 sf</td>
<td>27.11</td>
<td>591,432</td>
</tr>
<tr>
<td>Amphitheater c</td>
<td>(48,100) sf</td>
<td>14.56</td>
<td>(700,336)</td>
</tr>
<tr>
<td>Office c</td>
<td>471,006 sf</td>
<td>12.95</td>
<td>6,099,528</td>
</tr>
<tr>
<td>Residential Retail</td>
<td>68,872 sf</td>
<td>27.11</td>
<td>1,867,120</td>
</tr>
<tr>
<td>Community Serving b</td>
<td>38,928 sf</td>
<td>27.11</td>
<td>1,055,338</td>
</tr>
<tr>
<td>Residential</td>
<td>1,759 units</td>
<td>5,626.5</td>
<td>9,897,014</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td></td>
<td></td>
<td>34,554,097</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td>58,378,170</td>
</tr>
</tbody>
</table>

a  Electricity usage rates based on CEQA Air Quality Handbook, Appendix 9, Table A9-11.
b  Electricity consumption rate for studio, entertainment and amphitheater based on historical consumption use on the existing property.
c  Based on a 60-percent retail and 40-percent restaurant conversion factor.
d  Assumes a 450,000 square foot hotel.


Electricity Demand

As shown in Table 174 on page 1941, the total increase in electrical demand for the Los Angeles Department of Water and Power under the Project’s No Annexation scenario
Table 174  
Electrical Demand Under the No Annexation Scenario

<table>
<thead>
<tr>
<th></th>
<th>Quantity (units/sf/rooms)</th>
<th>Demand Rate (VA/sf or unit)</th>
<th>Demand (kVA)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>City (LADWP Service Area)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Residential</td>
<td>1,178 units</td>
<td>5,000</td>
<td>5,890.0</td>
</tr>
<tr>
<td>Residential Retail</td>
<td>46,128 sf</td>
<td>7.5</td>
<td>346.0</td>
</tr>
<tr>
<td>Community Serving</td>
<td>26,072 sf</td>
<td>6.8</td>
<td>177.3</td>
</tr>
<tr>
<td>Studio</td>
<td>77,220 sf</td>
<td>7.2</td>
<td>556.0</td>
</tr>
<tr>
<td>Studio Office</td>
<td>244,430 sf</td>
<td>6.4</td>
<td>1,564.4</td>
</tr>
<tr>
<td>Child Care Center</td>
<td>(10,000 sf)</td>
<td>10.1</td>
<td>(101.0)</td>
</tr>
<tr>
<td>Entertainment</td>
<td>67,100 sf</td>
<td>9.1</td>
<td>610.6</td>
</tr>
<tr>
<td>Entertainment Retail</td>
<td>17,400 sf</td>
<td>11.3</td>
<td>196.6</td>
</tr>
<tr>
<td>Office</td>
<td>24,400 sf</td>
<td>5.1</td>
<td>124.4</td>
</tr>
<tr>
<td>Hotel</td>
<td>500 rooms</td>
<td>4,320</td>
<td>2,160.0</td>
</tr>
<tr>
<td>Amphitheater</td>
<td>(2,500 sf)</td>
<td>12.7</td>
<td>(31.7)</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td></td>
<td></td>
<td>11,492.6</td>
</tr>
<tr>
<td><strong>County (SCE Service Area)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Studio</td>
<td>230,729 sf</td>
<td>7.2</td>
<td>1,661.2</td>
</tr>
<tr>
<td>Studio Office</td>
<td>187,896 sf</td>
<td>6.4</td>
<td>1,202.5</td>
</tr>
<tr>
<td>Child Care Center</td>
<td>15,000 sf</td>
<td>10.1</td>
<td>151.5</td>
</tr>
<tr>
<td>Entertainment</td>
<td>78,555 sf</td>
<td>9.1</td>
<td>714.9</td>
</tr>
<tr>
<td>Entertainment Retail</td>
<td>21,816 sf</td>
<td>11.3</td>
<td>246.5</td>
</tr>
<tr>
<td>Amphitheater</td>
<td>(48,100 sf)</td>
<td>12.7</td>
<td>(610.9)</td>
</tr>
<tr>
<td>Office</td>
<td>471,006 sf</td>
<td>5.1</td>
<td>2,402.1</td>
</tr>
<tr>
<td>Residential Retail</td>
<td>68,872 sf</td>
<td>7.5</td>
<td>516.5</td>
</tr>
<tr>
<td>Community Serving</td>
<td>38,928 sf</td>
<td>6.8</td>
<td>264.7</td>
</tr>
<tr>
<td>Residential</td>
<td>1,759 units</td>
<td>5,000</td>
<td>8,795.0</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td></td>
<td></td>
<td>15,344.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td>26,836.6</td>
</tr>
</tbody>
</table>

a Mixed-Use Residential Area demand provided by Butsko.
b Assumes a 450,000 square foot hotel.


would be 11,493 kVA. As previously discussed, the Los Angeles Department of Water and Power has indicated that the existing distribution facilities do not have the capacity to supply the increase in electrical demand for the City portion of the Project Site under the No Annexation scenario. With the incorporation of the Project’s proposed design

535 Correspondence from Charles Holloway, Supervisor of Environmental Assessment, Los Angeles Department of Water and Power; March 21, 2007
features, sufficient infrastructure capacity would be created to meet the demand under the No Annexation scenario and a less than significant impact would result.

(ii) Southern California Edison Service Area

Electricity Consumption

Should the proposed annexation not occur, more of the proposed residential development would be located within the County jurisdiction served by Southern California Edison, but lesser amounts of the other types of proposed commercial uses would occur within the City. As shown in Table 173 on page 1940 the total increase in the electrical consumption for the County portion of the Project Site that would be served by Southern California Edison under the No Annexation scenario is 34,554,097 kWh per year. This level of consumption represents 0.04 percent of Southern California Edison total existing consumption. As is the case with the proposed Project, this very low percentage increase of total incremental consumption within the Southern California Edison service area would constitute a less than significant impact on Southern California Edison projected consumption under the Project’s No Annexation scenario.

Electricity Demand

Under the No Annexation scenario, the increase in electrical demand in the County portion of the Project Site would be 15,344 kVA, as shown in Table 174 on page 1941. This increase in electrical demand is greater than under the proposed Project due to the location of some of the Project’s residential units within the County jurisdiction and therefore serviced by Southern California Edison under the No Annexation scenario. As is the case with the proposed Project, Southern California Edison has indicated that it has the capacity in its existing supply system to handle the increase in demand for power supplied by its facilities. However, in order to deliver this increased demand to the County portion of the Project Site under the No Annexation scenario, a new 66 kV line would need to be installed to connect to the expanded Studio Master Substation that would serve the Studio, Business and Entertainment Areas, as is the case with the proposed Project. In addition, a new 16 kV distribution line from the MacNeil Substation to the Project Site would be needed to serve the residential units that would be located within the County portion of the Project Site (and thus within the Southern California Edison service area) under the No Annexation scenario. The installation of the new Southern California Edison distribution line and associated infrastructure, including transformers and switches in a pad-mounted enclosure on-site, would be consistent with the requirements determined by Southern California Edison, including distance restrictions, setbacks, and size. In addition, Southern California Edison would perform upgrades to the MacNeil Substation, including the installation of new transformers, switch racks and a new capacitor bank, to serve the new
residential demand in the County under the No Annexation scenario. The Applicant would be responsible for the installation of infrastructure improvements on- and off-site to support the new line from the MacNeil Substation to the residential portion of the Project Site consistent with Southern California Edison requirements. In the event electricity is supplied by Southern California Edison facilities other than the MacNeil Substation, a new substation may be required on the County portion of the Project Site to serve the new residential demand under the No Annexation scenario. Thus, with implementation of the above improvements, impacts associated with the No Annexation scenario would be less than significant.

4. Cumulative Impacts

In order to assess overall demand and cumulative consumption impacts to Los Angeles Department of Water and Power and Southern California Edison services, an analysis based on future electricity consumption projections for the Los Angeles Department of Water and Power and Southern California Edison service areas was performed. For the purpose of the Project’s cumulative analysis, forecasted projections of off-site growth have been broken down into the service areas that are used by the individual service providers. This information is then compared to the Los Angeles Department of Water and Power and Southern California Edison projected consumption increase for the service areas between 2008 and 2030, the year of Project buildout. Cumulative demand projections are also discussed in terms of the total percentage of the cumulative demand of the Project. Both the proposed Project and No Annexation scenario are discussed below.

a. Cumulative Proposed Project Impacts

(1) Los Angeles Department of Water and Power Service Area

(a) Cumulative Electricity Consumption

With regards to the Los Angeles Department of Water and Power, forecasted growth would substantially increase the overall consumption of electricity within the Los Angeles Department of Water and Power service area. The Los Angeles Department of Water and Power supplies approximately 24,598 GWh of electricity a year for approximately
1.4 million customers residing in the City of Los Angeles. As the population and overall employment opportunities continue to grow in the surrounding area, increased consumption would place greater demands on the Los Angeles Department of Water and Power’s supplies and distribution systems. The cumulative analysis below is based on off-site growth projections within the Los Angeles Department of Water and Power service area.

Forecasted growth between 2008 and 2030 is projected to consume an additional 5,440 GWh per year of electricity, exclusive of the Project, within the Los Angeles Department of Water and Power service area. Table 175 on page 1945, presents a detailed breakdown of cumulative electricity consumption for the Los Angeles Department of Water and Power service area. This projected increase in consumption, coupled with the proposed Project, would yield a total of roughly 5,463.6 GWh per year of increased electricity consumption within the Los Angeles Department of Water and Power service area. While these forecasts represent very large increases in electricity consumption, the proposed Project represents only 0.43 percent of cumulative increased consumption. As this level of cumulative consumption is consistent with Los Angeles Department of Water and Power’s projections for 2030, a less than significant cumulative impact would result.

(b) Cumulative Electricity Demand

Based on the cumulative analysis performed, an additional 14.43 million kVA of electricity demand is projected within the Los Angeles Department of Water and Power service area between 2008 and 2030, the year of Project buildout. Table 176 on page 1945, provides a detailed breakdown of cumulative electricity demand within the Los Angeles Department of Water and Power service area. This projected increase in demand, coupled with the proposed Project, would yield a total of roughly 14.44 million kVA of electricity demand within the Los Angeles Department of Water and Power service area. Development within the Project Site would represent only 0.12 percent of that total.

As such, potential impacts from the identified growth within the service area, exclusive of the proposed Project, would be anticipated, as an expansion of the Los Angeles Department of Water and Power facilities would likely be required to accommodate the demand attributable to the forecasted off-site growth. Nevertheless, it is expected that planned area-wide service improvements by the Los Angeles Department of Water and Power would be in place to meet additional cumulative off-site growth/changes

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in land use patterns, which may occur between 2008 and 2030. In addition, developers of individual future projects, as well as the proposed Project, would provide for all Los Angeles Department of Water and Power required improvements to facilitate the provision of electrical services to each individual development site. Thus, through this process, the ability of the Los Angeles Department of Water and Power to meet demand to accommodate future growth and maintain acceptable levels of service would occur. Furthermore, Project related impacts would not contribute to cumulative off-site effects in the surrounding area since Project related impacts would be fully mitigated by the Project’s proposed design features, including the construction of a new off-site circuit and a new substation. Therefore, the Project would not contribute to any cumulative impacts to the Los Angeles Department of Water and Power services, and the Project’s cumulative impacts would be less than significant.

(2) Southern California Edison Service Area

(a) Cumulative Electricity Consumption

With regards to Southern California Edison, forecasted growth would substantially increase the overall consumption of electricity within the Southern California Edison service
area. The Southern California Edison service area includes over 11 million people in Southern California in over 749 communities. The cumulative analysis below is based on off-site growth projections within the Southern California Edison service area.

Forecasted growth between 2008 and 2030 is projected to consume an additional 34,047 GWh per year of electricity, exclusive of the Project, within the Southern California Edison service area. Table 177 on page 1947 presents a detailed breakdown of cumulative electricity consumption for the Southern California Edison service area. This projected increase in consumption, coupled with the proposed Project, would yield a total of roughly 34,082 GWh per year of electricity consumption within the Southern California Edison service area. While these forecasts represent very large increases in electricity consumption, the proposed Project represents only approximately 0.1 percent of the cumulative increased consumption. As this level of cumulative increased consumption is consistent with Southern California Edison’s ability to deliver electricity within its service area, a less than significant cumulative impact would result.

(b) Cumulative Electricity Demand

Based on the cumulative analysis performed and exclusive of the proposed Project, an additional 94.88 million kVA of electricity demand would be projected within the Southern California Edison service area between 2008 and 2030, the year of Project buildout. Table 178 on page 1947 provides a detailed breakdown of cumulative increased electricity demand within the Southern California Edison service area. This projected increase in demand, coupled with the proposed Project, would yield a total of roughly 94.89 million kVA of electricity demand within the Southern California Edison service area. Development within the Project Site would therefore represent only 0.01 percent of that total.

As such, potential impacts from the identified growth within the service area, exclusive of the proposed Project, would be anticipated, as an expansion of Southern California Edison facilities would likely be required to accommodate the demand attributable to the forecasted off-site growth. Nevertheless, it is expected that planned area-wide service improvements by the Southern California Edison would be in place to meet additional cumulative off-site growth/changes in land use patterns, which may occur between 2008 and 2030. In addition, developers of individual future projects, as well as the proposed Project, would provide for all Southern California Edison required improvements to facilitate the provision of electrical services to each individual development site. Thus, through this process, the ability of Southern California Edison to meet demand to accommodate future growth and maintain acceptable levels of service would occur. Furthermore, Project related impacts would not contribute to cumulative off-site effects in the surrounding area since Project related impacts would be fully mitigated by the Project’s
proposed project design features. Therefore, the Project would not contribute to any cumulative impacts to Southern California Edison services, and the Project’s cumulative impacts would be less than significant.

b. Cumulative Impacts Under No Annexation Scenario

(1) Los Angeles Department of Water and Power Service Area

(a) Cumulative Electricity Consumption

With regards to the Los Angeles Department of Water and Power, under the No Annexation scenario, an additional 5,440 GWh per year of electricity consumption, exclusive of the proposed Project, would be projected within the Los Angeles Department of Water and Power service area between 2008 and 2030, the year of Project buildout. Table 179 on page 1948 provides a detailed breakdown of cumulative electricity consumption for the Los Angeles Department of Water and Power service area. This projected increase in consumption, coupled with the Project under the No Annexation
scenario, would yield a total of roughly 5,463 GWh per year of electricity consumption within the Los Angeles Department of Water and Power service area. While these forecasts represent very large increases in electricity consumption, the Project’s percent of cumulative consumption would be approximately 0.44 percent. Similar to the impacts under the proposed Project, a less than significant impact is expected under the No Annexation scenario as this level of cumulative consumption is consistent with Los Angeles Department of Water and Power’s projections for 2030.

(b) Cumulative Electricity Demand

Cumulative impacts under the No Annexation scenario are anticipated to increase the overall demand for electricity within the Los Angeles Department of Water and Power’s service area. Based on the cumulative analysis performed, an additional 14.43 million kVA of electricity demand would be projected within the Los Angeles Department of Water and Power service area between 2008 and 2030, the year of Project buildout. Table 180 on page 1949 provides a detailed breakdown of cumulative electricity demand within the Los Angeles Department of Water and Power service area. This projected increase in demand, coupled with the Project under the No Annexation scenario, would yield a total of roughly 14.44 million kVA of electricity demand for the Los Angeles Department of Water and Power service area. Development within the Project Site under the No Annexation scenario would represent 0.08 percent of that total.

Nevertheless, similar to the proposed Project, an expansion of Los Angeles Department of Water and Power facilities would likely be required to accommodate the demand attributable to the forecasted off-site growth. Furthermore and more importantly, Project related impacts would not contribute to cumulative off-site effects in the surrounding area since Project related impacts would be fully mitigated by the Project’s proposed design features, similar to the impacts under the proposed Project. In addition, developers of individual future projects, as well as the Project, would provide all Los Angeles

<table>
<thead>
<tr>
<th>Consumption (GWh/year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forecasted Growth Demand (Total)</td>
</tr>
<tr>
<td>Proposed Project</td>
</tr>
<tr>
<td><strong>Cumulative Total Increase</strong></td>
</tr>
<tr>
<td>Proposed Project Percent of Cumulative Increase</td>
</tr>
</tbody>
</table>

Department of Water and Power required improvements to facilitate the provision of electrical services to each individual development site. Therefore, as is the case with the proposed Project, with implementation of the Project’s proposed design features, the Project under the No Annexation scenario would have the same less than significant cumulative impact on Los Angeles Department of Water and Power cumulative electricity demand.

(2) Southern California Edison Service Area

(a) Cumulative Electricity Consumption

With regards to the Southern California Edison, the forecasted off-site growth between 2008 and 2030 would result in an additional 34,047 GWh per year of electricity consumption within Southern California Edison’s service area. Table 181 on page 1950 provides a detailed breakdown of cumulative electricity consumption for the Southern California Edison service area. This projected increase in consumption, coupled with the Project under the No Annexation scenario, would yield a total of roughly 34,082 GWh per year of electricity consumption within the Southern California Edison service area. As shown in Table 181 below, the total Project’s percent of cumulative consumption under the No Annexation scenario would be approximately 0.1 percent. Similar to the impacts under the proposed Project, a less than significant impact is expected given the overall expected as this level of cumulative consumption is consistent with Southern California Edison’s ability electricity within its service area.

(b) Cumulative Electricity Demand

With regards to Southern California Edison, forecasted off-site growth between 2008 and 2030 is anticipated to increase the overall demand for electricity within Southern California Edison’s service area. Based on the cumulative analysis performed, an additional 94.88 million kVA of electricity demand would be projected. Table 182 on page 1950, provides a detailed breakdown of cumulative electricity demand within the Southern

<table>
<thead>
<tr>
<th>Table 180</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cumulative Increase in Los Angeles Department of Water and Power</td>
</tr>
<tr>
<td>Electricity Demand – No Annexation Scenario</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Demand (kVA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forecasted Growth Demand (Total)</td>
</tr>
<tr>
<td>Proposed Project</td>
</tr>
<tr>
<td><strong>Cumulative Total Increase</strong></td>
</tr>
<tr>
<td>Proposed Project Percent of Cumulative Increase</td>
</tr>
</tbody>
</table>

Table 181
Cumulative Increase in Southern California Edison Electricity Consumption – No Annexation Scenario

<table>
<thead>
<tr>
<th>Consumption (GWh/year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forecasted Growth Demand (Total)</td>
</tr>
<tr>
<td>Proposed Project</td>
</tr>
<tr>
<td><strong>Cumulative Total Increase</strong></td>
</tr>
<tr>
<td>Proposed Project Percent of Cumulative Increase</td>
</tr>
</tbody>
</table>

*Source: Incledon Consulting Group, 2010.*

Table 182
Cumulative Increase in Southern California Edison Electricity Demand – No Annexation Scenario

<table>
<thead>
<tr>
<th>Demand (kVA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forecasted Growth Demand (Total)</td>
</tr>
<tr>
<td>Proposed Project</td>
</tr>
<tr>
<td><strong>Cumulative Total Increase</strong></td>
</tr>
<tr>
<td>Proposed Project Percent of Cumulative Increase</td>
</tr>
</tbody>
</table>

*Source: Incledon Consulting Group, 2010.*

California Edison service area. This projected increase in demand, coupled with the Project under the No Annexation scenario, would yield a total of roughly 94.90 million kVA of electricity demand for the Southern California Edison service area. Development within the Project Site under the No Annexation scenario would represent 0.02 percent of that total.

Nevertheless, similar to the proposed Project, an expansion of Southern California Edison facilities would likely be required to accommodate the demand attributable to the forecasted off-site growth. Furthermore and more importantly, Project related impacts would not contribute to cumulative off-site effects in the surrounding area since Project related impacts would be fully mitigated by the proposed project design features, similar to the impacts under the proposed Project. Therefore, as is the case with the proposed Project, with implementation of the Project’s proposed design features, the Project under the No Annexation scenario would have the same less than significant cumulative impact on the ability of the Southern California Edison to respond to cumulative electricity demands.
5. Project Design Features and Mitigation Measures

Implementation of project design features identified for the proposed Project in this Section would ensure the Applicant or its successor would provide adequate electricity distribution facilities within the Project Site. Although the proposed Project would have a less than significant impact on electricity, and therefore, mitigation measures are not required, electricity conservation measures which would have the effect of reducing the proposed Project’s electrical use are also included.

a. Project Design Features

**Project Design Feature L.4-1:** Where available, spare conduits in the existing underground cable and conduit system within the Project Site would be utilized in lieu of providing new conduits. For areas with no spare conduits, additional conduits would be provided. New cables, electrical lines, and facilities would be provided for the Project in currently underdeveloped areas.

**Project Design Feature L.4-2:** Under the proposed Project, additional power would be supplied to meet the increased demand for the County portion of the Project Site through relocation of the Studio Master Substation and upgrades to the substation owned and operated by Southern California Edison. Specifically:

- A new Applicant-owned and operated distribution substation would be located east of the existing Studio Master Substation. The Applicant-owned facility currently housed within the existing Studio Master Substation would be relocated and expanded with new equipment to the new location.

- Additional electricity would be supplied to the existing Studio Master Substation through an additional 66kV transmission line for an additional 60 MVA for the Project Site, which will increase the total capacity of the existing Studio Master Substation to 100 MVA. The substation would also be equipped with an outdoor 66kV Gas Insulated Switchgear which would be configured in an operating and transfer bus arrangement. All 66kV lines and transformer bank feeders would enter the Gas Insulated Switchgear equipment by means of an underground riser pedestal. The substation would also have a Mechanical-Electrical Equipment Room to house all controls, switches, relay protection equipment, alarms, meters, batteries, HVAC and the station AC and DC distribution panels.
- Once expanded, operation of the existing Studio Master Substation facility would transfer from the Applicant or its successor to Southern California Edison, and the substation would be connected to the Edison Universal Substation via subterranean electrical lines. The Edison Universal Substation has an existing capacity of 22 MVA. The combined substations that would be operated by Southern California Edison would have a total capacity of 122 MVA and would supply power to the new Applicant-owned and operated distribution substation, which would distribute electricity within the County portion of the Project Site.

- The private on-site electrical system would have new electrical lines to serve new buildings constructed as part of the Project.

- Under the No Annexation scenario, in addition to the improvements described above, a new 16 KV distribution line from the MacNeil Substation to the Project Site would be installed consistent with Southern California Edison requirements, along with associated infrastructure, including transformers and switches in a pad-mounted enclosure on-site, to serve the residential units that would be located within the County portion of the Project Site. In the event electricity is supplied by Southern California Edison facilities other than the MacNeil Substation, a new substation may be provided on the County portion of the Project Site to serve the new residential demand under the No Annexation scenario.

**Project Design Feature L.4-3:** The existing Los Angeles Department of Water and Power 34.5-kV system would be reinforced and a new distribution system would be installed. The new Los Angeles Department of Water and Power distribution system would be a 34.5-kV circuit with local transformer stations installed on the Project Site. This Los Angeles Department of Water and Power distribution station would be a new and separate non-dedicated 34.5-kV to 4.8-kV distribution station also installed on the Project Site. The new distribution station would be located in the southeastern portion of the Project Site, with easy access to Barham Boulevard. The Applicant or its successor would be responsible for grading the site, providing access to the site, and appropriate landscaping that would screen the substation from view from off-site locations. The Los Angeles Department of Water and Power would be responsible for acquisition of the land and installation of the substation itself. The substation would be approximately 15,000 to 20,000 square feet in area. The exact location of the distribution station, which would be within City jurisdiction, would be determined as plans for the Project are further refined. Equipment within the distribution station would be metal-encased and grounded and all electric supply cables for the
Mixed-Use Residential Area would be installed in underground conduits. This new Los Angeles Department of Water and Power distribution station would receive power that originates from the Los Angeles Department of Water and Power’s Toluca Receiving Station or through Los Angeles Department of Water and Power’s or through Arch Distributing Station 4. This new 34.5-kV circuit that would be required would originate from either the Toluca Receiving Station or Arch Distributing Station 4, depending on which station provides the new power needed. This new off-site circuit would require off-site construction from the chosen Los Angeles Department of Water and Power station location (the Toluca Receiving Station or Arch Distributing Station 4) to the point of connection to the Project Site’s on-site 34.5-kV circuit. These transmission lines may travel to the Project Site via existing overhead pole lines or via existing underground conduit.

**Project Design Feature L.4-4:** The Applicant or its successor shall consult with Los Angeles Department of Water and Power’s Efficiency Solutions Business Group for assistance with energy conservation design features, for Project development occurring within the City of Los Angeles.

**Project Design Feature L.4-5:** Each of the Project’s buildings would be subject to the State Energy Conservation Standards for New Residential and Non-Residential Buildings (Title 24, Part 6, Article 2, California Code of Regulations). The Project shall incorporate energy conservation measures to exceed Title 24 (2005) requirements by 15 percent. In the event Title 24 is amended such that the energy conservation requirements exceed Title 24 (2005) by more than 15 percent, the Project shall comply with the amended Title 24.

**Project Design Feature L.4-6:** Install efficient lighting and lighting control systems.

**Project Design Feature L.4-7:** Install light colored “cool” roofs.

**Project Design Feature L.4-8:** Install energy efficient heating and cooling systems, appliances (e.g., ENERGY STAR) and equipment, and control systems.

**Project Design Feature L.4-9:** Install LEDs for traffic and street lighting.

**Project Design Feature L.4-10:** Use efficient pumps and motors for pools and spas within Mixed-Use Residential Area residential development.
**Project Design Feature L.4-11:** Provide education on energy efficiency, water conservation, waste diversion, and recycling services to the Applicant’s employees through new employee orientation materials and three times annually through the company website, exhibits, or meetings on energy conservation.

### b. Mitigation Measures

As the proposed Project would have a less than significant impact on electricity, mitigation measures are not required.

## 6. Level of Significance After Mitigation

### a. Conclusion

Implementation of the proposed Project would result in increased electrical consumption and demand within the service areas of both the Los Angeles Department of Water and Power and Southern California Edison. However, with the implementation of the project design features, Project impacts under both the Project as proposed and the No Annexation scenario would be less than significant.

### b. Impacts from Off-Site Improvements

1. **Description of Proposed Southern California Edison Off-Site Improvements**

   Improvements to Southern California Edison’s off-site electrical infrastructure are required to adequately serve the Project as proposed. Whereas the Project’s additional demand can be met via the existing facilities at the MacNeil Substation, which is located along Chandler Boulevard just east of Hollywood Way (north of the Project Site), a new 66 kV transmission line would be needed to supply additional electricity from the MacNeil Substation to the expanded on-site Studio Master Substation. In addition, under the No Annexation scenario, Southern California Edison has indicated that to adequately serve the residential development that would be located within the County portion of the Mixed-Use Residential Area, an additional new 16 kV transmission line from the MacNeil Substation to the Project Site would be required. In addition, upgrades to the MacNeil Substation itself may be required to deliver the requisite electrical demand to the County portion of the Mixed-Use Residential Area under the No Annexation scenario. Improvements to the MacNeil Substation would only be required if capacity is not available at the substation at
the time the 16 kV line is installed. In order to provide a conservative analysis it is assumed that additional substation capacity would not be available and upgrades to the MacNeil Substation would be required under the No Annexation scenario. Also of note is that the 66kV line, as well as the 16 kV line, should it be installed, would primarily be located underground within the public right-of-way of existing public streets.

In the event that upgrades to the MacNeil Substation are required (i.e., Project development occurs under the No Annexation scenario), Southern California Edison has indicated that it would perform the upgrades to the MacNeil Substation, including the installation of new transformers, switch racks and a new capacitor bank. The Applicant would be responsible for the installation of all new off-site transmission lines and associated improvements required to serve the Project that would connect the MacNeil Substation to the Project Site.

Implementation of the improvements described above would be located off-site and could result in additional environmental impacts beyond those identified in the above analysis. In the event that both the 66 kV and 16 k V lines are required (i.e., development occurs under the No Annexation scenario), both lines would be installed in the same transmission corridor, though they may not be installed together, depending on separation requirements, or concurrently, depending on the timing of Project implementation. The alignment selected for the new transmission corridor is described as follows. From the MacNeil Substation the new transmission line(s) would travel westerly on Chandler Boulevard to Clybourn Avenue, and then southerly along Clybourn Avenue to Forman Avenue. From there the transmission line(s) would continue southerly along Forman Avenue to Riverside Drive. At Riverside Drive, the 66 kV line would travel west to Cahuenga Boulevard, then travel south along Cahuenga Boulevard to the northwest corner of the Project Site. Under the No Annexation scenario, the 16 kV line would follow the same route to Riverside Drive, but at Riverside Drive the 16 kV transmission line would turn east and continue along Riverside Drive to Pass Avenue. At that point the 16 kV transmission line would continue southerly along Pass Avenue and then Olive Avenue. At Olive Avenue the route would cross the Los Angeles River Flood Control Channel right-of-way (possibly in an overhead configuration), and continue down Barham Boulevard until it enters the Project Site via Lakeside Plaza Drive. From the points of entry at the Project Site, the Applicant would determine the on-site alignment for both the 66 kV and 16 kV transmission lines with the 66 kV line ultimately connecting to the expanded Studio Master Substation, whereas the 16 kV line would ultimately connect to a new Southern California Edison substation that would be located in the Mixed-Use Residential Area. Within the route from the MacNeil Substation to the Project Site, the underground transmission lines would traverse through the Cities of Los Angeles and Burbank. Construction of the underground lines would require potholing (i.e., locating existing subsurface infrastructure), trenching, laying of the new transmission line(s), and repair of the affected roadways.
following the installation of the new transmission line(s). The equipment that would be installed within the proposed transmission corridor as well as related facilities with regards to both the 66 kV and 16 kV lines would consist of the following for each line:

- Approximately 19,500 linear feet of transmission type duct bank (6 – 5” conduits) concrete encased;
- Approximately 21,200 linear feet of copper cable;
- Approximately 18 – (10’ x 10’ x 20’) transmission-type underground cable vaults;
- Approximately two (2) Riser Steel Poles for the Los Angeles River Flood Control Channel crossing; and
- Termination points at each substation consisting of underground pedestal risers (i.e., MacNeil Substation, and the Studio Master Substation).

The proposed improvements described above are shown in Figure 219 on page 1957.

(2) Description of Proposed Los Angeles Department of Water and Power Off-Site Improvements

Improvements to the Los Angeles Department of Water and Power’s off-site electrical infrastructure would be required to adequately serve the Project as proposed. The proposed Los Angeles Department of Water and Power distribution station on the Project Site would receive power that originates from the Los Angeles Department of Water and Power’s Toluca Receiving Station, which is located at 5740 Whitnall Highway, or Arch Distributing Station, which is located at 4261 Arch Drive. Transmission lines would be required from the off-site station providing power to the point of connection to the Project Site’s on-site 34.5-kV circuit. These transmission lines may travel to the Project Site via existing overhead pole lines or via existing underground conduit. The Los Angeles Department of Water and Power currently operates both 4.8-kV and 34.5-kV circuits in Lankershim Boulevard, Cahuenga Boulevard, and Barham Boulevard, consisting of overhead pole lines and underground conduit. The Los Angeles Department of Water and Power anticipates that routing of existing and new circuits to the Project would be along these streets, with supply connections most likely made from one or more of these connections. The connection to existing utility lines may require potholing, trenching, laying of new transmission line(s), and repair of affected roadways.
Location of Existing and Proposed On-Site and Off-Site Substations and Off-Site Transmission Lines
(3) Proposed Transmission Line(s)

The installation of the transmission line(s) would involve mostly construction related activities and thus would have negligible post-construction (i.e., operational) environmental impacts.

As discussed above, within the proposed Southern California Edison transmission corridor there could be up to two sets of underground transmission lines, with one being the proposed Project’s 66 kV line and the other being the 16 kV line, which would only be installed if Project development occurs under the No Annexation scenario. Under normal circumstances, operational related impacts, other than potential visual impacts for the above ground section of the transmission corridor as it crosses the Los Angeles River Flood Control Channel (see analysis below), would be short term in nature and would involve only inspection and maintenance activities performed by Southern California Edison. Thus, potential operational impacts would be similar to those discussed below except they would be of a lower intensity as less effort is required to inspect and maintain a transmission line(s) than the effort to initially install the line(s). The analysis provided below would be for either the 66 kV line or for both of the lines, as the 16 kV line would primarily be installed along the same transmission corridor as the 66 kV line, although the two lines may not be installed at the same time or within the same trench, depending on Southern California Edison’s separation requirements. Once the transmission lines reach the Project Site, all impacts associated with the construction and operation of the transmission lines are analyzed above.

As discussed above, the proposed Los Angeles Department of Water and Power transmission lines to serve the Project would travel via existing overhead pole lines or via existing underground conduit in Lankershim Boulevard, Cahuenga Boulevard, and/or Barham Boulevard. Once the transmission lines reach the Project Site, all impacts associated with the construction and operation of the transmission lines are analyzed above.

Environmental impacts associated with constructing the off-site transmission line(s) are limited in scope and duration. In other words, the improvements do not have very many environmental impacts, and the impacts that do occur only last for a short period of time. Impacts that potentially could occur, while not necessarily occurring at every location, include the following: (1) temporary lane closures, (2) short-term loss of on-street parking spaces, (3) creating impedances to emergency vehicle access as well as access to businesses and residences, (4) air quality and noise impacts associated with the use of mechanical construction equipment and/or construction activities, and (5) the potential use of hazardous materials. It is important to note that nearly all of these potential impacts only occur during the construction of the transmission line(s) and cease to occur once
construction is completed. Additional detail regarding these and other potential environmental impacts is provided below.

(a) Land Use/Public Services/Employment/Population/Housing

Placement of the off-site transmission line(s) would not result in any impacts with regard to land use, public services (other than emergency vehicle access which is addressed below), employment, housing, and population. Such impacts are not anticipated because the implementation of these improvements would not impact private property, only affect existing roadway right-of-ways, not result in an increase in population or employment, or cause the displacement of any existing business or residence.

(b) Traffic

Construction of the proposed transmission line(s) could result in temporary minor disruptions affecting transportation circulation, access, parking, and emergency services. Construction activities would typically occur during the daytime hours and would involve crews working on a limited segment of the transmission corridor at any one time with construction at any one location lasting a few weeks in duration. Specifically, construction of the underground line(s) would consist of potholing, trenching, laying of line(s), and the subsequent repair of the affected roadways. These temporary construction activities would potentially impact local traffic circulation patterns by requiring the temporary closure of portions of each affected roadway (i.e., at least one travel lane would be provided at all times), which could temporarily block access to public or private properties adjacent to the construction zone. Impacts with regard to traffic, access and parking would be similar to those described as occurring with implementation of the Level 2 Off-Site Roadway Improvements (please see Section IV.B.1, Traffic/Access for a detailed discussion of these types of potential off-site impacts). While the construction of the transmission line(s) required to support the proposed Project as well as the No Annexation scenario would result in potential impacts to the transportation system, it is important to note that construction related impacts would be temporary in nature and would be avoided or reduced to a less than significant level through implementation of standard traffic control practices and/or construction traffic management plans, as required by the affected jurisdiction. In addition, impacts to emergency vehicle access would be further reduced as emergency vehicles would still be able to navigate congested traffic conditions through a number of standard operating procedures. Thus, impacts from the construction of the off-site transmission line(s) would result in less than significant impacts with regard to transportation circulation, access, parking, and emergency services.
(c) Air Quality

During construction of the underground transmission line(s), emissions from all construction sources would not be anticipated to exceed the South Coast Air Quality Management District’s regional significance thresholds used in this Draft EIR due to the limited quantities of earth movement, the limited use of mechanical equipment, and the relatively small size of the work crews. Impacts with regard to localized air quality concentrations and toxic air contaminants would be less than significant due to the limited quantity of emissions at any one location and because the emission sources would be sufficiently far enough apart so as not to yield additive impacts that exceed the established significance thresholds. Also, during construction, odors associated with emissions from diesel-powered equipment and from the application of asphalt could occur within the construction areas along the proposed transmission corridor. Any odors that could occur would occur for a limited duration (i.e., anticipated to be no more than a few days). As a result, air quality impacts attributable to the construction of the transmission line(s) would be less than significant.

(d) Climate Change

Greenhouse gas emissions generated during the construction of the transmission line(s) would be very limited and when amortized over the life of the transmission line(s) would represent a very small and minor incremental increase in terms of the total greenhouse gas emissions generated by the Project. It is anticipated that the greenhouse gas reductions that would occur under the Project would be sufficient to reduce emissions to an extent greater than the 28.4 percent below “Business as Usual” standard even with the addition of the greenhouse gas emissions generated during the construction of the off-site transmission line(s). Thus, implementation and construction of the off-site electrical transmission line(s) would result in a less than significant impact with regard to climate change (i.e. greenhouse gas emissions).

(e) Noise

With regard to noise, construction of the electrical transmission line(s) would require the use of heavy duty construction equipment for site preparation and excavation, laying the lines, and street repairs as well as the use of smaller power tools and generators. During each stage of development, there would be a different mix of equipment operating and as a result, noise levels would vary based on the type and amount of equipment in operation and the location of the activity along the proposed route. Given the limited construction activities required to implement the improvements, any mechanical construction equipment that would be used would be in operation for very short periods of time. Even though these impacts would only occur for a limited duration of time, noise
impacts at noise sensitive locations that are located within a couple of hundred feet of any individual construction site could be significant during the short periods of time when heavy duty construction equipment is used given the incremental difference between construction noise levels and ambient noise levels in the area.

(f) Visual Qualities

The Southern California Edison transmission corridor is proposed to run underground except where it crosses the Los Angeles River Flood Control Channel adjacent to the Project Site, at the northwestern corner of the Project Site with regards to the 66 kV line, and at the northeastern corner of the Project Site with regards to the 16 kV line, if it is necessary under the No Annexation scenario. As such, no impacts to visual resources would occur along the length of the Southern California Edison transmission corridor other than at these two locations. The above ground crossing of the Los Angeles River Flood Control Channel for the 16 kV line, if needed, would be in proximity to Viewpoints 3 and 8, whereas Viewpoints 21 and 22 would be in proximity to where the 66 kV line would cross the Los Angeles River Flood Control Channel, as analyzed in Section IV.D, Visual Qualities, of this Draft EIR. This analysis concludes that Project development would result in a less than significant visual qualities impact from these Viewpoints. The addition of a short stretch of above grade transmission lines would be a minor incremental change to the visual environment and therefore, would not result in any change in the conclusions reached regarding overall Project development. The proposed Los Angeles Department of Water and Power transmission lines would travel via existing overhead pole lines or via existing underground conduit. As such, visual impacts associated with construction and operation of the proposed off-site transmission line(s) would be less than significant.

(g) Environmental Safety

In general, a wide variety of contaminants may currently be present along the proposed route, such as solvents, hydrocarbons, and heavy metals or herbicides. These contaminants may be encountered during construction which in turn could expose the general public to contaminated soils during excavation. While this may occur, all potential health hazards to the public and construction personnel associated with the potential presence of hazardous waste sites along the proposed transmission corridor would be reduced to less than significant levels by compliance with applicable federal, state, and local regulations. This coupled with the handling of hazardous materials used during the construction process in accordance with all applicable regulations, standard construction practices, and manufacturer guidelines would reduce environmental safety impacts to a less than significant level.
(h) **Hydrology/Surface Water**

Sources of potential short-term construction-related stormwater pollution associated with the installation of the transmission lines include the handling, storage, and disposal of construction materials, the maintenance and operation of construction equipment, and earth moving activities, which may generate soil erosion or sedimentation. Activities associated with the construction of the off-site transmission line(s) relating to hydrology and water quality, include trench dewatering operations (if required), dust suppression, vehicle and equipment washing, paving, and waste management. Similar to the handling of hazardous materials, all of these activities would be conducted in conformance with all regulatory requirements thereby resulting in hydrology and water quality impacts that are less than significant.

(i) **Geotechnical**

Any potential geotechnical impacts that may occur (e.g., due to the presence of geotechnical hazards, or related to sedimentation or erosion), would be appropriately addressed, for locations within the City of Los Angeles, via the City Department of Engineering’s “B” permit process, which regulates activities in the public right-of-way. Through the City’s “B” permit process, and similar processes in the City of Burbank, geotechnical impacts associated with the construction of the proposed off-site transmission line(s) would be reduced to a less than significant level.

(j) **Biological Resources**

It is also anticipated that there would be a low potential to encounter biological resources or trees that are afforded regulatory protection during construction of the proposed off-site transmission line(s). Any street trees that would be removed would be replaced in accordance with local regulatory requirements. In addition, no candidate, sensitive, or special status species identified in local plans, policies, or regulations, or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service are expected to occur as the alignment of the transmission corridor and the immediately surrounding areas are highly urbanized and contain no habitat for such species. Therefore, impacts to biological resources associated with the construction of the proposed transmission line(s) would be less than significant.

(k) **Cultural Resources**

As the proposed off-site transmission line(s) would occur in previously disturbed areas, less than significant impacts with regard to archaeological and/or paleontological
resources are anticipated since any such resources that may have been present were previously disturbed and/or removed.

(4) Southern California Edison MacNeil Substation Improvements

Improvements to the Southern California Edison MacNeil Substation, as described above, may be required to provide the electrical demand required to support residential development within the portion of the Mixed-Use Residential Area that would be located in the County under the No Annexation scenario. These improvements would only be required if the Project is developed pursuant to the No Annexation scenario and the MacNeil Substation is at full capacity at the time the 16 kV line is implemented. If the 16 kV line can be supported by the existing facilities at the MacNeil Substation, then no expansion of the substation would be required and no impacts beyond those described above would occur. However, should the substation need to be expanded to support the new 16 kV line, impacts associated with the expansion of the existing facility would also be limited with regard to the extent of environmental impacts that could occur with regards to the substation expansion as well as the amount of time it would take to construct the expansion. Impacts that potentially could occur include the following: (1) geotechnical, hydrology/water quality, environmental safety, air quality, climate change, noise, and archaeological/paleontological impacts during construction, and (2) air quality, climate change, and environmental safety impacts during operations of the expanded substation.

Through compliance with applicable City of Burbank and related regulatory requirements, potential construction impacts with regard to geotechnical, hydrology/water quality, and environmental safety would all be reduced to a less than significant level. This same conclusion would also apply to potential environmental safety impacts that could occur during the operations of the proposed substation upgrades. Less than significant construction impacts with regard to archaeological and paleontological resources are also anticipated as construction activities in support of the substation upgrades would occur in previously disturbed soils and any such resources that may have been present were previously disturbed and/or removed.

The types of construction air quality and noise impacts described above with respect to the transmission line(s) are also applicable to the proposed substation upgrades with the only differences being that the impacts would occur within a smaller geographic area (i.e., the area immediately surrounding the MacNeil Substation) and the impacts would last for a somewhat longer duration (i.e., a few months versus a few weeks). However, these differences do not result in changes to the conclusions presented above. As such, construction air quality impacts would be less than significant, whereas construction noise impacts at noise sensitive locations that are located within a couple of hundred feet of the MacNeil Substation could be significant during the short periods of time heavy duty
construction equipment is used given the incremental difference between construction noise levels and ambient noise levels in the area. Operational noise and air quality impacts would be reduced to less than significant levels through compliance with the City of Burbank’s noise ordinance and through permitting by the South Coast Air Quality Management District as the substation improvements would be classified as a stationary source subject to South Coast Air Quality Management District Rules and Regulations.

Construction as well as operational greenhouse gas emissions would be minor particularly when amortized over the life of the substation upgrades. As is the case with analysis provided above with regard to the transmission line(s), these emissions would be sufficiently limited that the greenhouse gas reductions that would occur under the Project would sufficiently reduce emissions even with the addition of the greenhouse gas emissions generated during the construction and operation of the proposed substation upgrades. Thus, construction and operations of the proposed substation upgrades would result in a less than significant impact with regard to climate change (i.e., greenhouse gas emissions).