

# Executive Summary

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## 1.1 Project Overview

Walnut Creek Energy, LLC (WCE), a wholly-owned subsidiary of Edison Mission Energy (EME), proposes to construct, own, and operate an electrical generating plant in the City of Industry, Los Angeles County, California. The Walnut Creek Energy Park (WCEP) will be a natural gas-fired, simple-cycle electrical generating facility. The project is proposed for an 11.48 acre site at 911 Bixby Drive, City of Industry (City). The project site is owned by the Industry Urban Development Agency (Development Agency) and is zoned Industrial. Surrounding land uses currently include warehousing and manufacturing, transportation (railroad and intermodal rail yard), transmission line easements, the Southern California Edison (SCE) Walnut Substation, and residential.

A parcel map of the WCEP site is attached as Appendix 1A. A list of the property owners located within 1,000 feet of the power plant site or 500 feet of the linear facilities is attached as Appendix 1B. Appendix 1C contains a letter documenting WCE's agreement with the Development Agency for the use of the property.

Figure 1.1-1 is an architectural rendering of the project. Figure 1.1-2 shows the location of the project within the project vicinity. Figure 1.1-3 shows the site location. The project will have the following design features:

- Five GE Energy LMS100 combustion turbine generators (CTG), a five-cell mechanical draft cooling tower, and associated support equipment.
- Selective catalytic reduction (SCR) carbon monoxide (CO) catalyst air emissions control systems and water-injected combustors.
- A 600-foot-long 230-kilovolt (kV) transmission line connected with SCE nearby Walnut Substation that requires two offsite transmission towers within the existing SCE transmission easement.
- A 14-inch-diameter connection to Southern California Gas Company's (SoCalGas) 30-inch, high-pressure natural gas pipeline that occupies a utility easement within the project parcel.
- A 30-foot-long pipeline to supply reclaimed water from the Rowland Water District's pipeline that is located in Bixby Drive adjacent to the project site. Reclaimed water will be used as cooling tower and evaporative cooler makeup water, landscape irrigation water, and demineralizer makeup water.
- An 8-inch-diameter connection to Section No. 3 of the Los Angeles County Sanitation District (LACSD) No. 21, 48-inch trunk sewer, which is located in a utility easement within the project parcel.
- A 30-foot-long pipeline to supply potable water to the project site from a water main adjacent to the project site in Bixby Avenue.

- A 4-inch-diameter connection to Section No. 3 of the LACSD No. 21, 48-inch trunk sewer, which is located in a utility easement within the project parcel.

## 1.2 Project Ownership

WCE will own the WCEP, and is a wholly-owned subsidiary of EME. EME is an independent power developer, owner, and operator engaged in the business of owning or leasing, operating, and selling energy and capacity from electric power generation facilities. EME was formed in 1986 with two domestic operating power plants. As of March 31, 2005, EME's continuing operations consisted of owned or leased interests in 18 operating power plants with an aggregate net physical capacity of 9,914 MW, of which EME's capacity pro rata share was 8,834 MW. Based in Irvine, California, EME had approximately \$6.3 billion in assets as of March 31, 2005.

The City is in the process of reviewing a Negative Declaration for a demolition plan to remove the warehouse building currently occupying the project site. The Development Agency has determined that it could increase the property value and rental income if the warehouse building was removed to attract new industrial development. EME has entered into a lease option agreement with the Development Agency for the cleared project site.

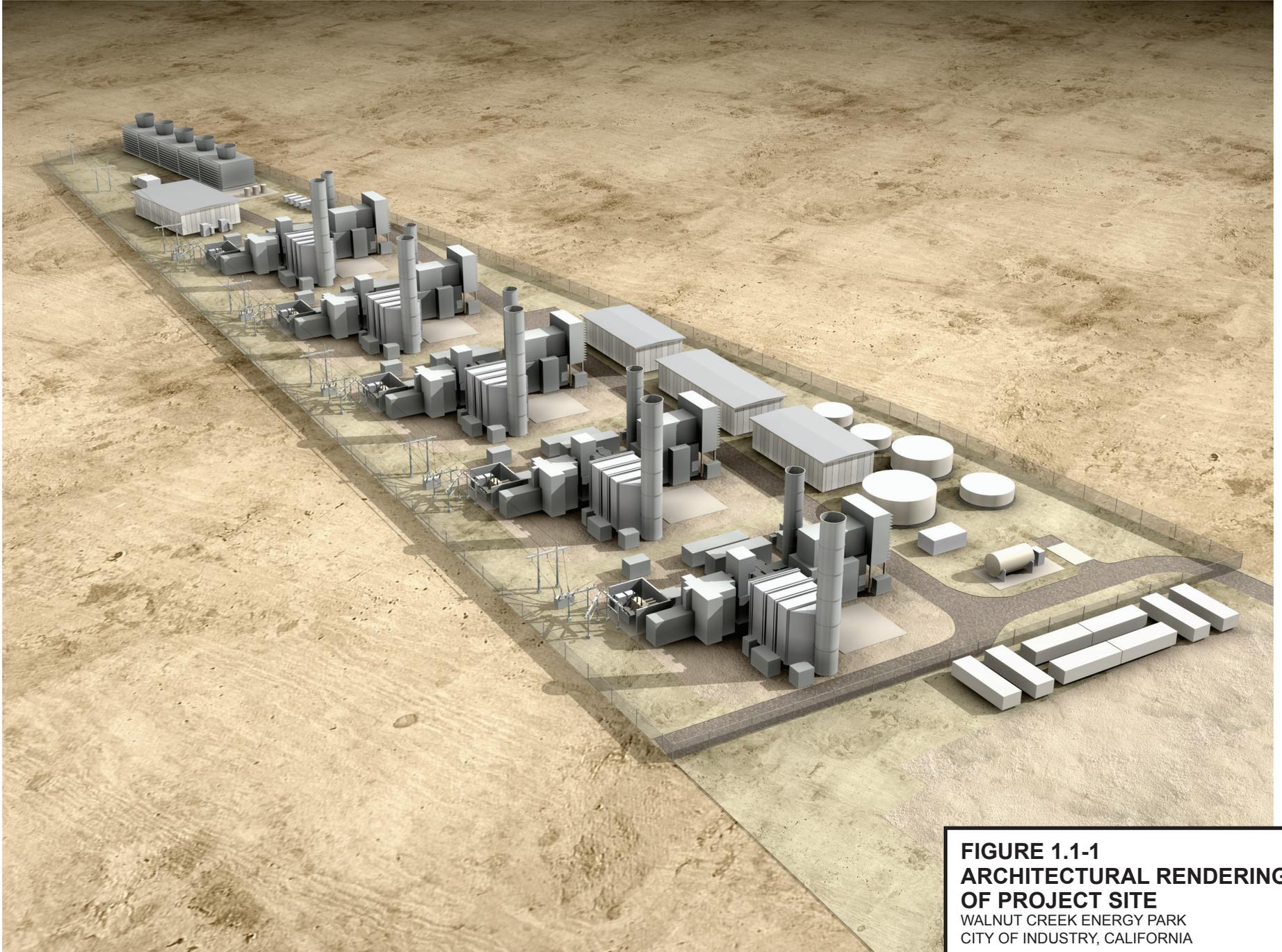
## 1.3 Project Schedule

WCE is filing this Application for Certification (AFC) under the California Energy Commission's (CEC) 12-month licensing process. Assuming the project receives a license by December 2006, construction of the WCEP will begin in early spring 2007. Pre-operational testing of the power plant will begin in summer 2008, and full-scale commercial operation is expected to commence by August 2008.

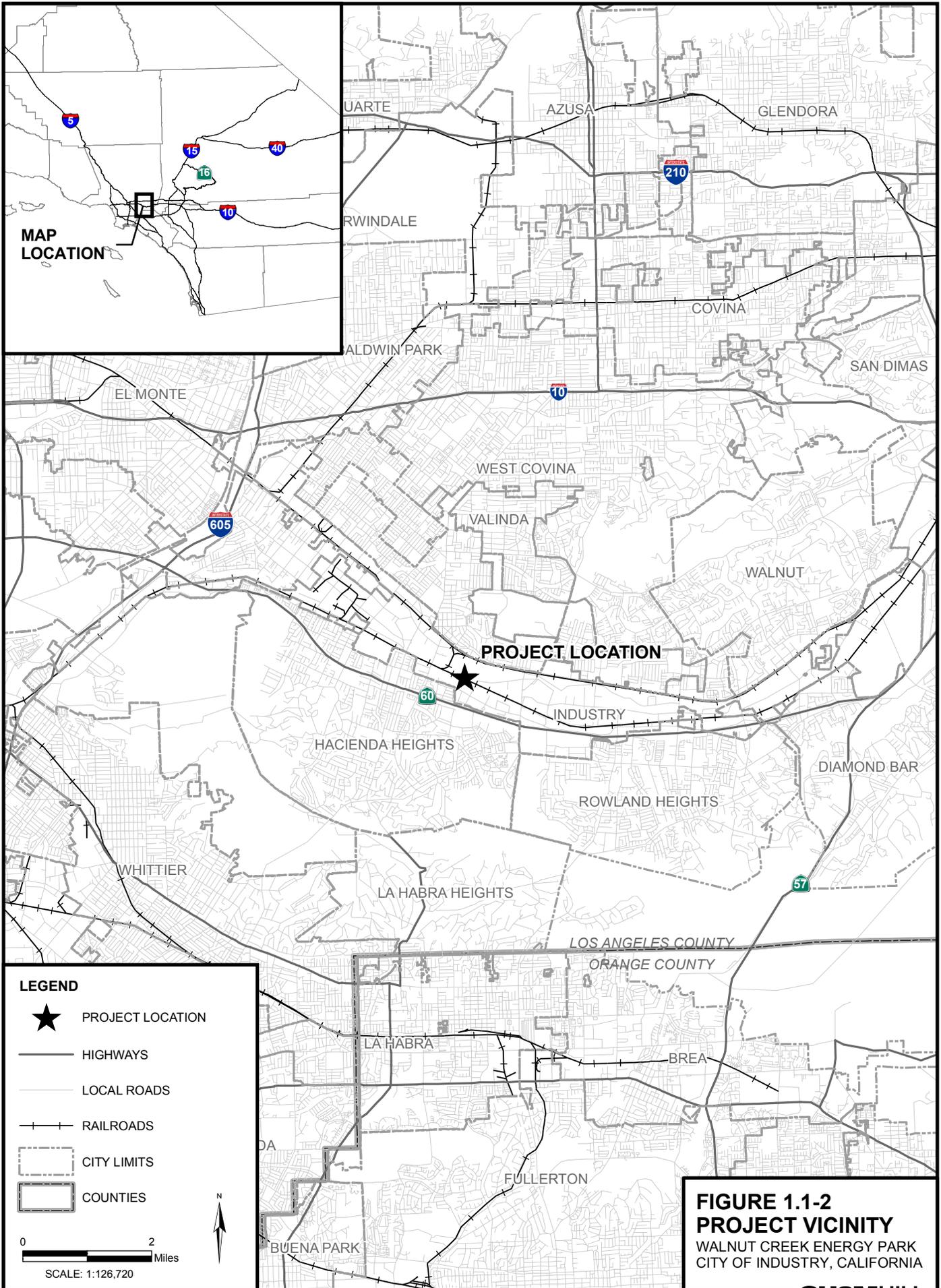
## 1.4 Project Alternatives

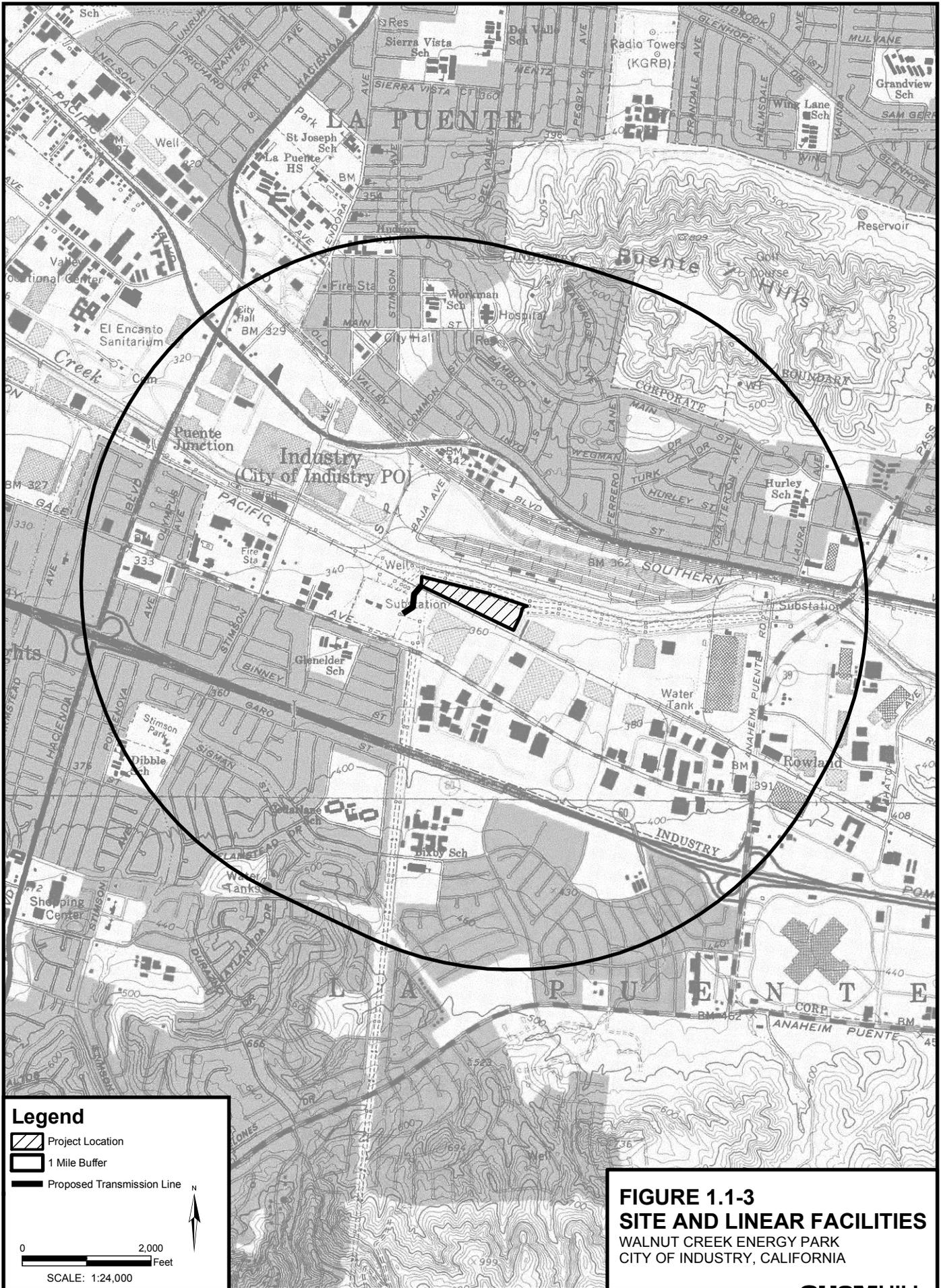
A "no project" alternative was considered and rejected. The no project alternative fails to meet the basic project objectives of the WCEP as described in this AFC. For example, the no project alternative is inconsistent with one of the primary objectives of EME's program to provide electrical power to support reliable supply and provide peaking power in Southern California. In addition, the no project alternative could result in greater fuel consumption and air pollution in the state because older, less efficient plants with higher air emissions would continue to generate power instead of being replaced with cleaner, more efficient, plants such as the WCEP. Also, during periods of limited availability of in-state-generated electricity, imported electrical energy has proven to be expensive and is not always available.

In addition to the no project alternative, WCEC has analyzed two possible alternative power plant sites. Each of these sites was rejected as infeasible because each fails to meet most of the WCEP's basic project objectives, fails to avoid or minimize potentially significant environmental effects, and/or includes the potential for the alternative itself to result in one or more significant environmental impacts. A complete discussion of project alternatives, including the no project alternative, is presented in Section 9.0.



**FIGURE 1.1-1**  
**ARCHITECTURAL RENDERING**  
**OF PROJECT SITE**  
WALNUT CREEK ENERGY PARK  
CITY OF INDUSTRY, CALIFORNIA





**Legend**

-  Project Location
-  1 Mile Buffer
-  Proposed Transmission Line

0 2,000 Feet  
SCALE: 1:24,000

**FIGURE 1.1-3**  
**SITE AND LINEAR FACILITIES**  
 WALNUT CREEK ENERGY PARK  
 CITY OF INDUSTRY, CALIFORNIA

Alternative routings for the project's linear appurtenances were not considered, because connections to natural gas, sanitary sewer, and non-reclaimable water disposal are within the project parcel; connections for potable water and reclaimed water are within a few feet of the WCEP parcel; and the SCE Walnut Substation is 250 feet from the proposed project.

Several alternative generating technologies were reviewed in a process that resulted in the selection of a state-of-the-art, natural gas-fired combustion turbine power plant for the WCEP. The alternative technologies included conventional oil and natural gas-fired plants, combined-cycle combustion turbines, biomass-fired plants, waste-to-energy plants, solar plants, wind generation plants, and others. None of these technologies was considered better than or equal to the GE Energy LMS100 technology selected for the WCEP to meet the project goals. The LMS100 is currently the most efficient peaking combustion turbine available. In addition to the dramatic improvement in efficiency compared with previously available peaking turbines, the LMS 100 starts very quickly (10 minutes), is highly efficient at both full and part loads, has low emissions, and has sustained hot-day power. All of these factors combined make the GE Energy LMS100 technology the preferred alternative to meet southern California's needs for peaking generation capacity within the South Coast Air Basin.

## 1.5 Environmental Considerations

Pursuant to the requirements set forth in existing environmental laws and the CEC's regulations, 16 areas of possible environmental impact from the proposed project were investigated. Detailed descriptions and analyses of these areas are presented in Sections 8.1 through 8.16 of the AFC. As discussed in detail in this AFC, with the implementation of the proposed mitigation measures and the anticipated Conditions of Certification, there will be no significant unmitigated environmental impacts associated with the construction and operation of the WCEP. This Executive Summary highlights findings related to five subject areas that have historically been of interest in CEC proceedings: air quality, biological resources, noise, visual resources, and water resources.

### 1.5.1 Air Quality

The WCEP site is located in a State of California and federal Ambient Air Quality Standards non-attainment area for ozone and for particulate matter with a diameter less than 10 microns ( $PM_{10}$ ), and a federal non-attainment area for carbon monoxide (CO). The South Coast Air Quality Management District (SCAQMD) has requested re-designation for CO to a status of attainment. An assessment of the impact to air quality was performed using detailed air dispersion modeling. The potential air quality impacts from the WCEP will be mitigated by the installation and operation of Best Available Control Technology (BACT) for the combustion turbines, cooling tower, and support equipment. Emission reduction credits (ERCs) will be obtained to offset the project's emissions of volatile organic compounds (VOC),  $PM_{10}$ , and CO. RECLAIM Trading Credits (RTC) will be provided to offset the project's emissions of oxides of nitrogen ( $NO_x$ ) and sulfur dioxide ( $SO_2$ ). Offsets for  $PM_{10}$  will be obtained from the SCAQMD Priority Reserve. Offsets for VOC and CO may be acquired from the SCAQMD bank, SCAQMD Priority Reserve, or from other sources such as shutdowns, or non-traditional sources of emissions reductions credits. These mitigation measures will result in the project having no significant adverse impact on air quality or public health. See Section 8.1 for a detailed analysis of air quality.

## 1.5.2 Biological Resources

The project would not cause any adverse impacts to wetlands or biological resources. The project site is currently covered in asphalt and a large building and does not contain suitable habitat for wildlife or rare plants. The transmission line right-of-way is covered in gravel and a landscape plant nursery, and the other off-site linears are all less than 30 feet long and extend into either railroad or urban street right-of-way. Neither the project site nor immediately surrounding areas contain suitable habitat for threatened or endangered species. A storm drainage swale is located adjacent to (west of) the project site, but is not part of the project site and the project will have no adverse effect on this area. Section 8.2 discusses biological resources.

## 1.5.3 Noise

The City of Industry requires developments to “maintain a low profile of noise sources so that surrounding communities are not infringed by noises from sources other than transportation” but has not set a quantitative noise standard. The Applicant conducted 25-hour ambient noise monitoring at the nearest residence (i.e. sensitive receptor) to the WCEP. Based on this monitoring, the Applicant calculated the existing day-night noise level ( $L_{dn}$ ), and community noise equivalent level (CNEL). The  $L_{dn}$  takes into consideration the greater sensitivity to nighttime noises by adding 10 decibels between the hours of 10:00 p.m. and 7:00 a.m. to calculate acceptable community noise levels. The CNEL adds 5 dBA to the period between 7:00 p.m. and 10:00 p.m. in addition to the 10 dBA. Typically the CNEL and the  $L_{dn}$  vary by 1 dBA. Although the WCEP is a peaking power plant, and so is expected to run most often during the daytime when demand is highest, the WCEP may run during the nighttime under emergency outage conditions and other circumstances, so the  $L_{dn}$  is an appropriate measure. Based on detailed modeling of project noise, the WCEP will not cause the ambient noise at the nearest sensitive receptor to increase by more than 5 dBA (a barely noticeable increase). See Section 8.7 for a detailed analysis of project noise.

## 1.5.4 Visual Resources

The most prominent visual features of the WCEP will be the stacks, at 90 feet, and ventilation silencers (variable bypass valve [VBV] silencers), at 68 feet. Analysis of simulated views of the project from sensitive viewing positions (key observation points) shows that the project would not cause adverse visual impacts. The project is almost entirely screened to views from residential areas to the south by large warehouse buildings and transmission structures adjacent to the Southern California Edison Walnut Substation. From residential areas located on more elevated ground further to the south and north, the project does not stand out prominently from among the warehouses and industrial buildings in the City of Industry’s industrial corridor, a high-voltage transmission corridor, and an intermodal railyard and cargo container storage area. The stacks are the same height as or smaller than the transmission towers that are located in the utility corridors to the north, west, and south of the site. The project is not located in or near a scenic or protected viewshed. Section 8.13 contains a detailed discussion of the visual resources assessment.

## 1.5.5 Water Resources

The water to be used in the WCEP cooling tower and as process makeup for the power cycle systems will be high-purity, tertiary-treated, reclaimed water provided by the Rowland Water District from their San Jose Creek Water Wastewater Reclamation Plant. No potable or other fresh water will be used for these purposes. The average net and peak consumption of reclaimed water by the WCEP will be approximately 771 and 937 acre-feet per year, respectively. Stormwater runoff from the project site during construction and operation will be carefully controlled in accordance with an engineered drainage system, oil-water separators, and standard Best Management Practices. The project would not have an adverse effect on the availability or quality of water resources. Section 8.15 contains a detailed analysis of water resources.

## 1.6 Key Benefits

### 1.6.1 Environmental

The WCEP will use the most efficient simple cycle combustion turbine currently available, and SCR and CO catalyst to minimize emissions. Oxides of nitrogen (NO<sub>x</sub>) emissions (a precursor to ozone formation) produced by the WCEP will be at least 90 percent less per megawatt than those produced by many older, existing power plants. In addition to the significant reduction of emissions, the WCEP's new technology and improved operating efficiency will enable the plant to consume less fuel per megawatt-hour of electricity produced than older plants of similar size.

The use of reclaimed water as primary cooling and process water for the WCEP will prevent an additional, continuous demand on the local potable water system and will allow effective use of the area's reclaimed water supply. The WCEP complies with policy guidance included in the CEC's 2003 Integrated Energy Policy Report, which encourages the use of alternative water supplies. The WCEP will utilize reclaimed water from Rowland Water District for all of its cooling needs and other industrial uses where feasible. In this way, the WCEP is conserving fresh water within the State of California.

### 1.6.2 Employment

The project will provide for an average of approximately 220 construction jobs over a 12-month period and approximately 9 technical and skilled, family-wage positions throughout the life of the plant. In addition to the direct employment benefit, the WCEP plant will require and use the services of local or regional firms for major maintenance and overhauls, plant supplies, and other support services throughout the life of the facility.

### 1.6.3 Energy Efficiency

The WCEP will be an efficient, environmentally responsible source of economic and reliable electrical energy to serve the growing energy demands of Southern California.

## 1.7 Persons Who Prepared the AFC

Persons with primary responsibility for preparing each section of this AFC are listed in Appendix 1D.