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Executive Summary

1.1 Introduction

This application for a Small Power Plant Exemption (SPPE) for the AltaGas Pomona Energy, Inc. (AltaGas) Pomona Repower Project (PRP, or project) has been prepared by AltaGas in accordance with the California Energy Commission's (CEC's) Power Plant Site Certification Regulations (Title 20, California Code of Regulations [Cal. Code Regs.], Section 1704(b)(5) and Appendix F). This Executive Summary provides an overview of the project.

This SPPE provides:

- The location of the project (Section 1.5)
- A detailed description of the proposed project, type of fuel to be used, and transmission corridor (Sections 2 and 3)
- An assessment of the project's potential impact on the environment (Section 4)
- Applicant-committed measures to mitigate project impacts to assure that environmental issues are properly and responsibly addressed (Section 4)
- A discussion of compliance with applicable laws, ordinances, regulations, and standards (LORS) provided within the project description and each resource section, along with contact information for affected agencies (Section 4)
- A discussion of alternatives to the power plant (Section 5)

1.2 Project Overview

The Applicant proposes to develop a natural-gas-fired generating facility to be located in the city of Pomona (City) (see Figure 1.2-1, figures are located at the end of each section) in Los Angeles County (County), California. The proposed PRP will be a nominal net 100-megawatt (MW) peaking facility that will replace the existing 44.5 MW San Gabriel Cogeneration Facility (San Gabriel Facility), for an increased nominal net output of 55.5 MW.

PRP will consist of the following components:

- One General Electric LMS100PA combustion turbine generator (CTG) with a nominal net rating of 100 MW.¹ The CTG will be equipped with evaporative coolers on the inlet air system, compressor inter-stage cooling, and water injection to control nitrogen oxides (NO_x)
- Increase the height of the exhaust stack from 75 feet tall to 90 feet tall
- One multi fan, induced draft cooling tower
- Two fuel gas compressors
- One 10,000-gallon ammonia storage tank containing 19 percent aqueous ammonia (same size as existing tank)
- One demineralized water treatment system

¹ The capabilities listed are based in ISO conditions

- Approximately 0.2 mile of reconductored 66-kilovolt (kV) transmission line (generation tie-line, or gen-tie line) connecting to the Ganesha-Simpson transmission line (see Section 3, Transmission Systems Engineering).
- Existing natural gas pipeline
- Existing potable and recycled water supply lines
- Existing stormwater, sanitary sewer, and wastewater lines

The project would occupy 2 acres at the existing San Gabriel Facility located at 1507 Mt. Vernon Avenue, Pomona, California. A general arrangement of the plant is presented as Figure 1.2-2.

Consistent with the intent of the Governor's Executive Order No. B-29-15, dated April 1, 2015, the project will use recycled water from the Pomona Water Reclamation Plant (WRP) for cooling and process water uses. Because the recycled water source will replace the existing San Gabriel Facility potable water source, overall potable water use at the site will substantially decrease. Potable and recycled water will be provided through existing water supply lines. Stormwater, sanitary sewer, and wastewater disposal will also use existing lines.

The electrical transmission interconnections will link PRP to the power grid by connecting to the nearby Southern California Edison (SCE) Ganesha Substation (between Mt. Vernon Avenue and W. 2nd Street in Pomona) using a reconductored 66-kV gen-tie line running approximately 0.2 mile from the PRP site, around existing buildings, to the point where it ties into the existing SCE Ganesha-Simpson Transmission Line (see Figure 1.2-3).

Natural gas for the facility will be delivered to the site via the existing natural gas pipeline that provides fuel to the San Gabriel Facility.

A full-page photograph of the site prior to construction is presented as Figure 1.2-4. A visual simulation of the plant after construction is presented as Figure 1.2-5.

1.3 Project Objectives

Applicant's project objectives are described in more detail in this SPPE application. Some of Applicant's basic project objectives include the following:

- To safely and economically construct, operate and maintain an efficient, reliable, and environmentally-sound nominal 100-MW (net), natural-gas-fired, simple-cycle generating facility to replace the aging 44.5 MW San Gabriel Facility.
- Develop a nominal 100 MW (net) project that provides efficient operational flexibility with rapid-start and steep ramping capability to allow for the efficient integration of renewable energy sources into the California electrical grid.
- Reuse existing electrical, water, wastewater, and natural gas infrastructure and land to minimize terrestrial resource and environmental justice impacts by developing on a brownfield site.
- Serve southern California energy demand with efficient and competitively priced electrical generation.
- Site the project to serve the eastern Los Angeles Basin load center without constructing new transmission facilities.
- Assist the State in developing increased local generation projects, thus reducing dependence on imported power.
- To provide power capable of providing grid support by offering power generation that is flexible and delivered to the grid operator through communications with a scheduling coordinator.

- To contribute to the diversification of the area’s economic base by providing a reliable low-cost power source.
- Ensure potential environmental impacts can be avoided, eliminated, or mitigated to less-than-significant levels.

1.4 Project Schedule

Project demolition and construction are planned to take place over approximately 20 months, from first half of 2017 to fourth quarter 2018. Plant testing/commissioning is planned to commence in the first quarter of 2019, and be completed by the first quarter of 2019.

1.5 Project Ownership

AltaGas owns the existing San Gabriel Facility site located at 1507 Mt. Vernon Avenue, in Pomona, California. The Assessor’s Parcel Number for the site is: 8348-005-033. It is located in Section 15, Township 1 South, Range 9 West, San Bernardino Base and Meridian.

Parcel numbers and the names of the landowners within 1,000 feet of the site and within 500 feet of the reconducted subtransmission line corridor are included in Appendix 1A.

PRP will be owned by AltaGas. The gen-tie line from the onsite switchyard to its tie in with the Ganesha-Simpson transmission line will be owned by SCE. The natural gas pipeline will continue to be owned by Southern California Gas Company (SoCalGas). The sewer, stormwater, potable and recycled water lines will be owned by the City.

1.6 Project Alternatives

The CEC conducts its review of alternatives to satisfy the Warren-Alquist Act and the California Environmental Quality Act (CEQA). The Alternatives analysis is provided in Section 5 of this Application and includes a discussion of the range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project. Since PRP will replace the existing San Gabriel Facility, consistent with the requirements of California Public Resources Code (Cal. Pub. Res.) Section 25540.6(b), alternative sites will not be addressed in this SPPE Application.

A “No Project” alternative was considered and rejected as inconsistent with Applicant’s objectives, which include the need to repower its existing San Gabriel Facility. In addition, the “No Project” alternative could result in greater fuel consumption and air pollution in the State because generation from older, less-efficient plants with higher air emissions would not be reduced by generation from cleaner, more-efficient plants such as PRP.

In addition, AltaGas owns the existing San Gabriel Facility. Development of PRP meets all of the project’s objectives and would have no significant, unmitigated, environmental impacts. The PRP site:

- Is located adjacent to a high-pressure natural gas supply pipeline, existing potable and recycled water lines, and sanitary and wastewater disposal lines
- Is located near an existing high-voltage switchyard
- Is located within the Los Angeles Basin Local Reliability Area, adjacent to an area where local capacity is needed to meet North American Electric Reliability Corporation (NERC) reliability criteria
- Has feasible mitigation of potential environmental impacts

Alternative water supplies were reviewed as part of the Alternatives analysis, which concluded that the project’s proposed use of recycled water was superior to the use of potable water or dry cooling.

Several alternative power-generating technologies were reviewed in a process that led to the selection of a modern, proven, combustion turbine simple-cycle arrangement for PRP using natural gas for fuel. The alternative technologies included conventional oil and natural-gas-fired plants, combined-cycle combustion turbines, solar plants, wind-generation plants, and others. None of these technologies are feasible alternatives to the technology selected for PRP. A complete discussion of project alternatives is presented in Section 5.

1.7 Environmental Considerations

Sixteen areas of possible environmental impacts from the proposed project were investigated. Detailed descriptions and analyses of these areas are presented in Sections 4.1 through 4.15 of this SPPE application. With the implementation of reasonable and feasible mitigation measures, there will be no significant environmental effects resulting from the construction and operation of PRP. The potential effects of some key areas typically of greater interest to CEC Staff are summarized briefly in this section.

1.7.1 Air Quality

The site is located in an area designated as nonattainment for State and Federal ozone air quality standards, and for State fine particulate matter (PM₁₀) standards. An assessment of the impact to air quality was performed using detailed air dispersion modeling. The air impacts from the project will be mitigated by the advanced nature of the combustion turbine emission control technology. Emission reduction credits (ERCs) have been obtained to offset increases in emissions of volatile organic compounds (VOCs) and NO_x (both precursors of ozone), and of PM₁₀. The combination of the detailed air-quality modeling analyses and these mitigation measures will result in the project having no significant adverse impact on air quality.

1.7.2 Noise

The project is located on, and surrounded by, industrial and commercially zoned land. The project vicinity is an urbanized environment characterized by infill industrial development. Ambient noise measurements were collected from three locations to determine compliance with the local ordinance prohibiting noise in excess of 70 "A" weighted decibel scale (dBA) at the boundary of the industrial zone. Incorporating the shielding from the numerous existing buildings around the project as well as acoustical design features built into the project, the anticipated steady-state sound level is expected to comply with the 70 dBA limit at the boundary of the adjacent zone. At the noise-sensitive receptors beyond the boundary, the project is not anticipated to exceed the most restrictive daytime limit (60 dBA for single family residences). Existing ambient measurements indicate the nighttime sound levels do, at times, exceed the most restrictive nighttime limit (50 dBA). Section 18-311(c) of the City's Noise Ordinance adjusts the sound limit to the maximum measured ambient levels. Nighttime operations are not expected to exceed these levels at the nearest sensitive receptors.

1.7.3 Traffic and Transportation

The addition of PRP construction and demolition-related traffic would not result in significant impacts to the any of the affected freeway or roadway segments. The project would result in a temporary, potentially significant impact, to the stop-controlled intersection at Humane Way and Roselawn Avenue during the afternoon peak hour. No other transportation impacts are identified. To mitigate the potential project-specific impact, the project would implement a Transportation Management Plan (TMP), which would address the employee work schedule during the peak construction period to minimize departures during the afternoon peak hour when project impacts are anticipated.

1.7.4 Visual Resources

The landscape in this zone is largely built-out; therefore, new large-scale development within the study area is unlikely to occur. PRP is bounded by industrial warehouse structures to the north, east and west and a Union Pacific rail line to the south. A large rectangular warehouse structure adjoins PRP to the south, bordered by rail lines. To a larger extent, the existing land uses within the vicinity of the study area consist of a mix of residential, commercial, industrial, and other uses including institutions/schools and open space/parks. No eligible or designated state scenic highways are located within the viewshed of the project.

The Applicant reviewed the views from the inventory of viewpoints captured within the study area and—in consultation with CEC staff—selected three views as Key Observation Points (KOPs) to be used for evaluating the PRP’s potential visual effects. No designated scenic vistas of high visual quality were identified within the viewshed during the site reconnaissance or review of documents for PRP.

Therefore, the project would not have a substantial adverse effect on a scenic vista. There are no eligible or designated state scenic highways within the project viewshed. The project would thus not have a substantial adverse effect on scenic resources and routes. The amount of lighting visible at the site will not increase from what is now present. As a consequence, the potential for an increase in ambient lighting conditions in the PRP vicinity, and in skyglow above the PRP site will be minimal. With the project, there will be little change in the visual quality of the views from the KOPs. As a consequence, PRP would not degrade the existing visual character or quality of the project site or its surroundings. Because there will be no significant adverse visual impacts, given the existing conditions and the design features of the project, no mitigation measures are required.

1.7.5 Water Resources

The existing San Gabriel Facility uses potable water for all plant needs. The City of Pomona receives a majority of its water supply from underlying groundwater. Local groundwater supplies are from two groundwater basins. Consistent with the intent of the Governor’s Executive Order No. B-29-15, dated April 1, 2015, PRP will use recycled water for cooling and other appropriate process water uses. Currently, the existing San Gabriel Facility consumes about 327 gallons per minute (gpm) of potable water for typical daily use. Because PRP will use recycled water, the project will replace the existing San Gabriel Facility potable water use, and overall potable water use will substantially decrease from 327 to 47.4 gpm. PRP will use less than 15 percent of current potable water use. Because most of the City’s potable water supply is from the underlying groundwater basins, this will benefit groundwater supplies. Therefore, there will be no adverse impact on water resources.

1.8 Key Benefits

1.8.1 Environmental

- **Reuse of an Existing Power Plant Site:** PRP will replace the San Gabriel Facility
- **Use Existing Infrastructure:** PRP will use existing pipeline at the site for potable water, recycled water, storm drains, sanitary sewer and natural gas. Only 0.2 mile of transmission line will need to be reconducted. Existing monopoles will remain.
- **Use of Recycled Water for Cooling.** PRP will allow the plant to reduce potable water consumption by more than 85 percent, while doubling electrical output. The use of recycled water at PRP is a significant environmental benefit when compared to the existing San Gabriel Facility’s reliance on potable water supplies. Further, the use of recycled water reduces the potential of overdrafting groundwater supplies.

- **No Significant Air Quality Impacts:** PRP will employ advanced, high-efficiency combustion turbine technology and selective catalytic reduction (SCR) to minimize emissions from the facility. Using natural gas for fuel, PRP will be among the cleanest facilities of comparable size in the nation. Project emissions will be as much as 85 percent lower than those for existing older generating facilities. PRP is in the process of obtaining the necessary emission offsets to compensate for its air emissions.
- **No Significant Environmental Impacts:** PRP will not have any environmental impacts that cannot be mitigated below the level of significance.

1.8.2 Employment

The project will provide a peak of approximately 142 construction jobs, with an average of 48 demolition/construction jobs, over a 20-month period. In addition, it will provide approximately 13 full-time, living-wage jobs throughout the 30-year life of the plant.

1.8.3 Local Economic Benefits

PRP is estimated to increase the property tax revenues paid to the City of Pomona by more than \$1 million per year for the 30-year life of the plant.

1.8.4 Energy Efficiency

Development of PRP will provide more efficient generation, greater output, peaking capacity to support the higher level of renewable energy being produced and do it all without having any significant impacts on the environment. PRP will be an environmentally responsible source of economic and reliable energy to serve the growing energy demands of southern California and to support California's greater reliance on renewable energy. PRP will help ensure reliable and clean electricity in the future.

1.9 Persons Who Prepared the SPPE

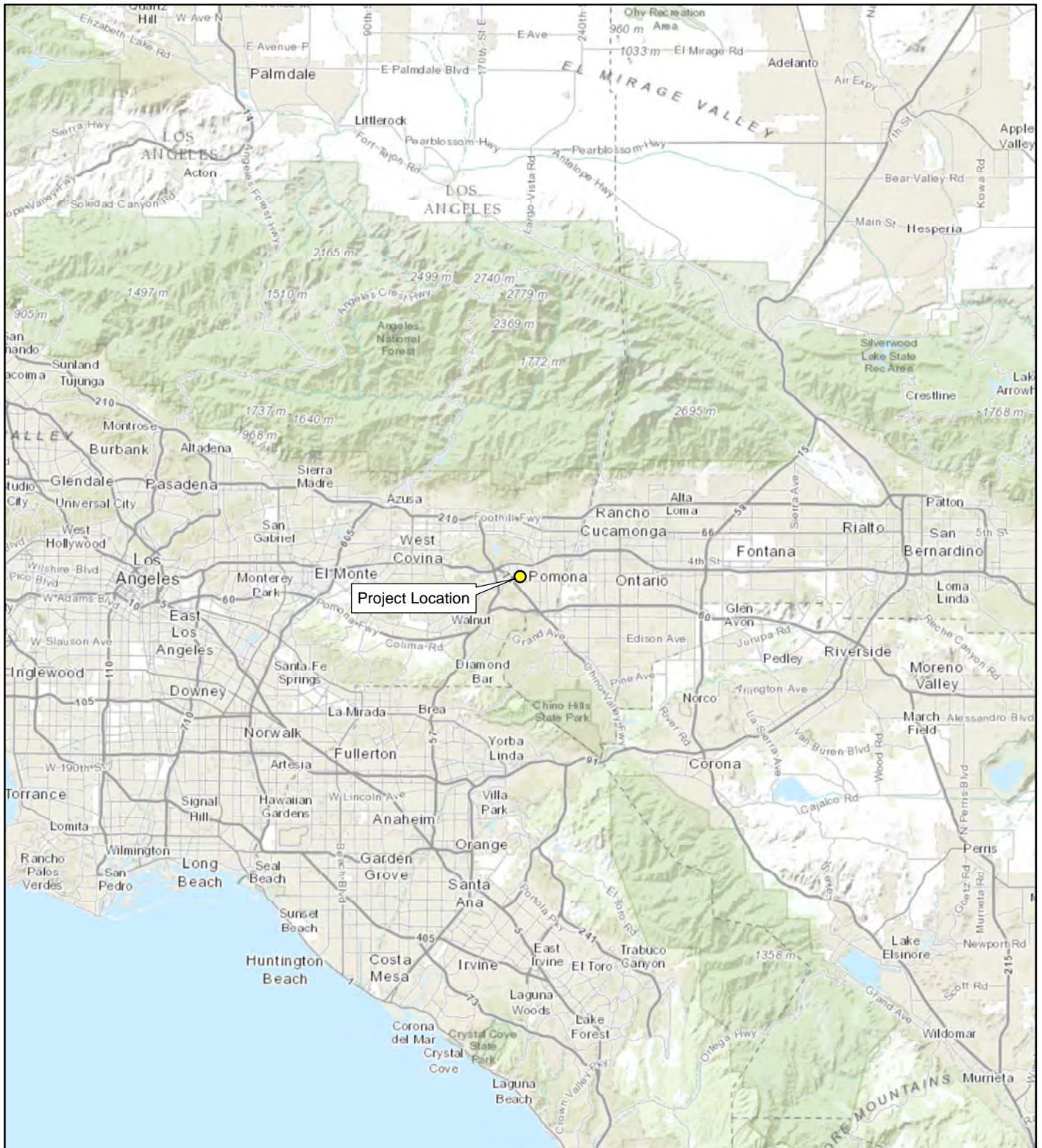
Persons with primary responsibility for the preparation of each section of this SPPE are listed in Appendix 1B.

1.10 Laws, Ordinances, Regulations, and Standards

Each section addresses the relevant LORS and compliance with such LORS.

1.11 Permitting Requirements

Each section provides a list of applicable federal, state, and local permits that would be required by each jurisdiction for the project.



LEGEND

- Project Location

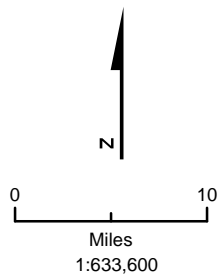
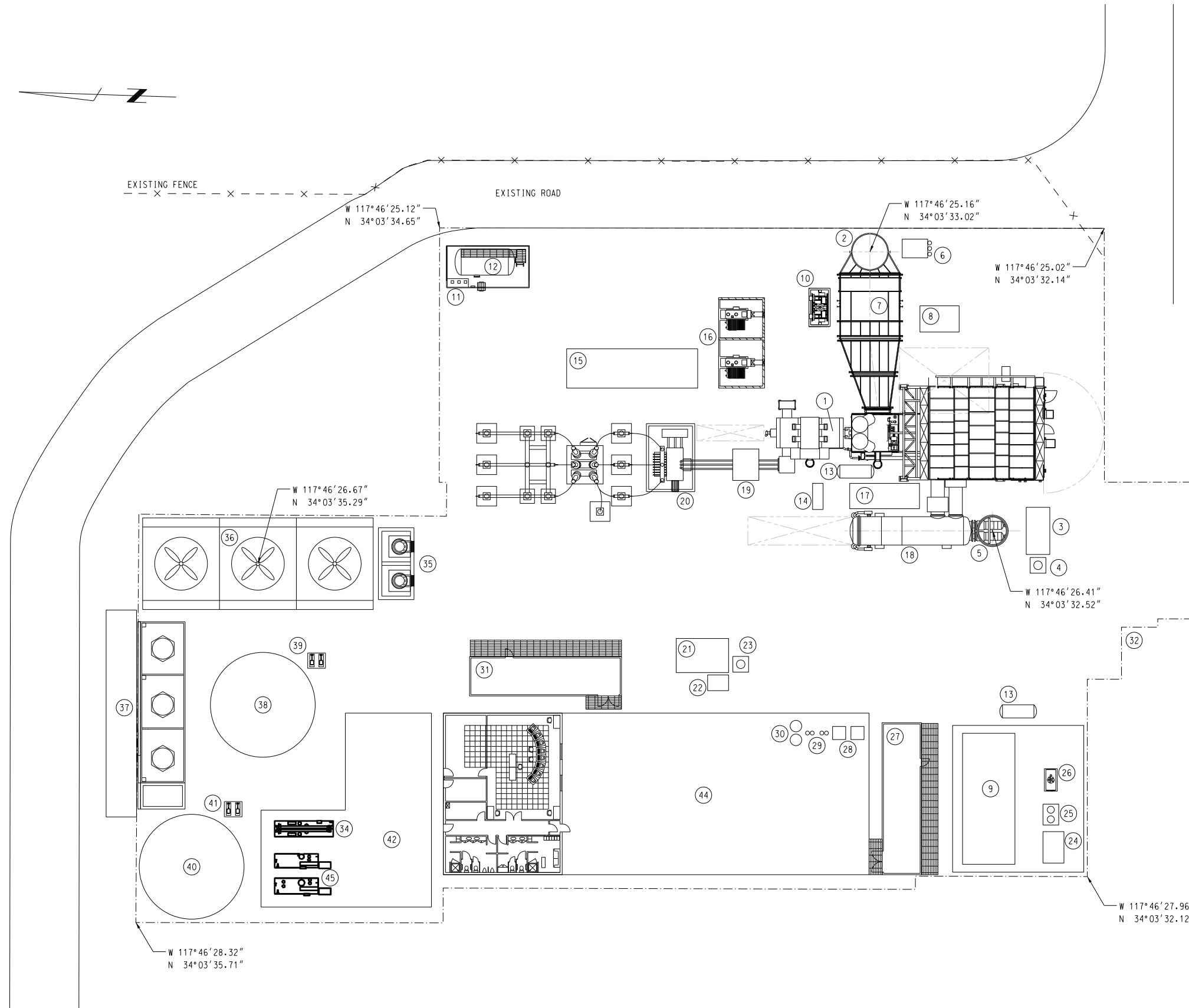


FIGURE 1.2-1

Project Vicinity
 Pomona Repower Project
 Pomona, California

Source Information: Esri Topo Map (Accessed December 2015)



- LEGEND**
- ① - GAS TURBINE GENERATOR (GTG) LMS100
 - ② - GTG EXHAUST STACK
 - ③ - OIL WATER SEPARATOR
 - ④ - OIL WATER SEPARATOR SUMP
 - ⑤ - VBV SILENCER
 - ⑥ - CEMS
 - ⑦ - SCR
 - ⑧ - CO₂ STORAGE
 - ⑨ - FUEL GAS COMPRESSOR SKID ENCLOSURE
 - ⑩ - NH₃ VAPORIZATION SKID
 - ⑪ - NH₃ FORWARDING PUMP
 - ⑫ - NH₃ STORAGE TANK
 - ⑬ - OIL WATER DRAINS TANK
 - ⑭ - WASTE WASH WATER TANK
 - ⑮ - POWER CONTROL MODULE
 - ⑯ - AUX TRANSFORMER
 - ⑰ - COOLING WATER PUMP SKID
 - ⑱ - INTERCOOLER
 - ⑲ - GEN CIRCUIT BREAKER
 - ⑳ - GSU
 - ㉑ - CCW HEAT EXCHANGER
 - ㉒ - CCW FORWARDING PUMPS
 - ㉓ - CCW EXPANSION TANK
 - ㉔ - FUEL GAS ESD AND KNOCK OUT DRUMS
 - ㉕ - FUEL GAS COALESCER/FILTER
 - ㉖ - FUEL GAS DRAINS TANK
 - ㉗ - FUEL GAS AREA MCC/PDC
 - ㉘ - AIR COMPRESSORS
 - ㉙ - AIR DRYERS
 - ㉚ - AI RECEIVERS
 - ㉛ - WATER TREATMENT AND COOLING TOWER MCC/PDC
 - ㉜ - PROPERTY LINE
 - ㉝ - AUX TRANSFORMER
 - ㉞ - RO SKID
 - ㉟ - CIRC WATER PUMPS
 - ㊱ - COOLING TOWER
 - ㊲ - CHEMICAL UNLOADING AREA
 - ㊳ - RAW/FIRE WATER STORAGE
 - ㊴ - RAW WATER FORWARDING PUMPS
 - ㊵ - DEMIN WATER STORAGE
 - ㊶ - DEMIN WATER FORWARDING PUMPS
 - ㊷ - WATER TREATMENT BUILDING
 - ㊸ - NOT USED
 - ㊹ - MAINTENANCE/WAREHOUSE/CONTROL HOUSE
 - ㊺ - EDI SKID

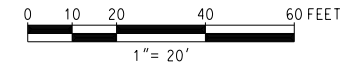


FIGURE 1.2-2
Site Plan and General Arrangement
 Pomona Repower Project
 Pomona, California

Source: Power Engineers, Drawing MSK1-1, Rev. C., 2/16/16.



Legend

- Existing Simpson Transmission Line (66kV)
- SCE 66kV Ganesha - Simpson Transmission Line
- Site Boundary

Source: Esri World Imagery (Accessed 2016-01-18); County of Los Angeles

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FIGURE 1.2-3
Site and Linear Facility Location
 Pomona Repower Project
 Pomona, California



Aerial Image © 2015 Google Earth. Imagery Date 3/24/2015. Annotation © 2016 CH2M

Figure 1.2-4
Appearance of Site before Construction
Pomona Repower Project
Pomona, California



Aerial Image © 2015 Google Earth. Imagery Date 3/24/2015. Annotation © 2016 CH2M

FIGURE 1.2-5
Appearance of Site after Construction
Pomona Repower Project
Pomona, California