1.1 INTRODUCTION

Otay Mesa Generating Company, Limited Liability Corporation (LLC) (the Applicant) is seeking approval from the California Energy Commission (CEC) to construct and operate the Otay Mesa Generating Project (the Project). The project will be a nominally rated 510 megawatt (MW) natural gas-fired, combined cycle electric generating project. The project will be located on Otay Mesa in southwestern San Diego County.

The Project will employ advanced combustion turbine technology and state-of-the-art air emissions control systems to create a highly efficient and environmentally superior source of electricity for California's restructured energy market.

The Project's Application for Certification (AFC) has been prepared in accordance with CEC guidelines and provides:

- A description of the proposed project
- A description of the project's selection through the Electricity Report (ER) demand conformance planning process and confirmed in the current ER
- An assessment of its likely impact on the environment
- The proposed mitigation to assure that environmental issues are properly and responsibly addressed, and
- Compliance with applicable laws, ordinances, regulations and standards.

1.2 NOI PETITION

The Applicant submitted a "Petition for Interpretation" to the CEC requesting a determination that the Project is exempt from the Notice of Intent (NOI) requirements of the California Public Resources Code (PRC) Section 25502. The CEC determined that the Project is exempt from NOI requirements.

1.3 PROJECT NEED

PRC Section 25520(e) requires that an applicant provide a statement of need with information that demonstrates compatibility of the proposed facility with the most recent ER. PRC Section 25523(f) requires that the CEC make findings consistent with the CEC integrated assessment of need in siting cases, such as this AFC. Facilities must be in conformance with the assessment to receive certification.

The controlling document for this application is ER 96, the most recent Electricity Report. This document establishes the amount of new capacity required for California and sets forth the test that applicants must pass to achieve certification.

1.3.1 Need Conformance Criteria

ER 96 established a needs test for merchant plants, such as the Project. The Project meets this test.

The project is being developed by Otay Mesa Generating Company, LLC. No contracts with utility companies have been or will be executed that will commit utility ratepayers to purchase power from the facility. The developer (Applicant) is "at risk" for the sale of the project output.

As of July 1999, the capacity represented by the Otay Mesa Generating Project (510 MW), added to the capacity of the nine other generating projects currently before the Commission (High Desert Power Project [680-720 MW], Pittsburg District Energy Facility [500 MW], La Paloma Generating Project [1048 MW], Delta Energy Center [750 MW], Sunrise Cogeneration and Power Project [320 MW], Elk Hills Power Project [500 MW], Three Mountain Power Plant Project [500 MW], Metcalf Energy Center Power Project [600 MW], Duke Energy Moss Landing Power Plant project [1000 MW]) totals 6578 MW, which is below the 6,737 MW found needed in ER 96. Therefore, the Project meets the criteria of the Commission's demand conformance guidelines.

1.3.2 Need for Power in San Diego

According to the California Independent System Operator (ISO), San Diego is one of the most high risk areas of the state from an electrical reliability and planning standpoint. There has not been a power plant sited in San Diego County in over 20 years, during which San Diego's electrical demand (i.e., load) has grown tremendously. San Diego is a growing region in an area with limited power import capability. The California ISO believes that import-constrained San Diego is short 200 MW to 300 MW of power today. This plant is in direct response to the critical need in San Diego for additional capacity. This plant will be competing for a Reliability Must-Run Contract from the California ISO.

1.4 PROJECT SCHEDULE

The project will be constructed by Otay Mesa Generating Company, LLC on an approximate 20-month schedule from mobilization. The target on-line date to meet the critical need for additional electrical power in San Diego is the Summer of 2002. Construction of the generating facility will occur between month 6 and month 25, including system checkout and start-up. See Figure 3.8-2 in Section 3.0 for a summary project construction schedule.

1.5 FACILITY LOCATION AND DESCRIPTION

1.5.1 Facility Location

The Project facilities (power block) encompass approximately 15 acres within a 46-acre property on the eastern portion of the Otay Mesa in southwestern San Diego County (refer to Figure 1.5-1 and Map 1.5-1). The site is located approximately 15 miles southeast of the City of San Diego, near the western base of the San Ysidro Mountains and approximately 1.5 miles north of the United States/Mexico border. The 46-acre lot is approximately 800 feet east of Alta Road and 1500 feet north of Otay Mesa Road. The 46-acre property is located in the north half (N1/2) of the southeast quarter (SE1/4) of Section 30 in Township 18 South (T18S), Range 1 East (R1E), San Bernardino Base Meridian (Otay Mesa, California, USGS Quadrangle, 1:24,000 scale).

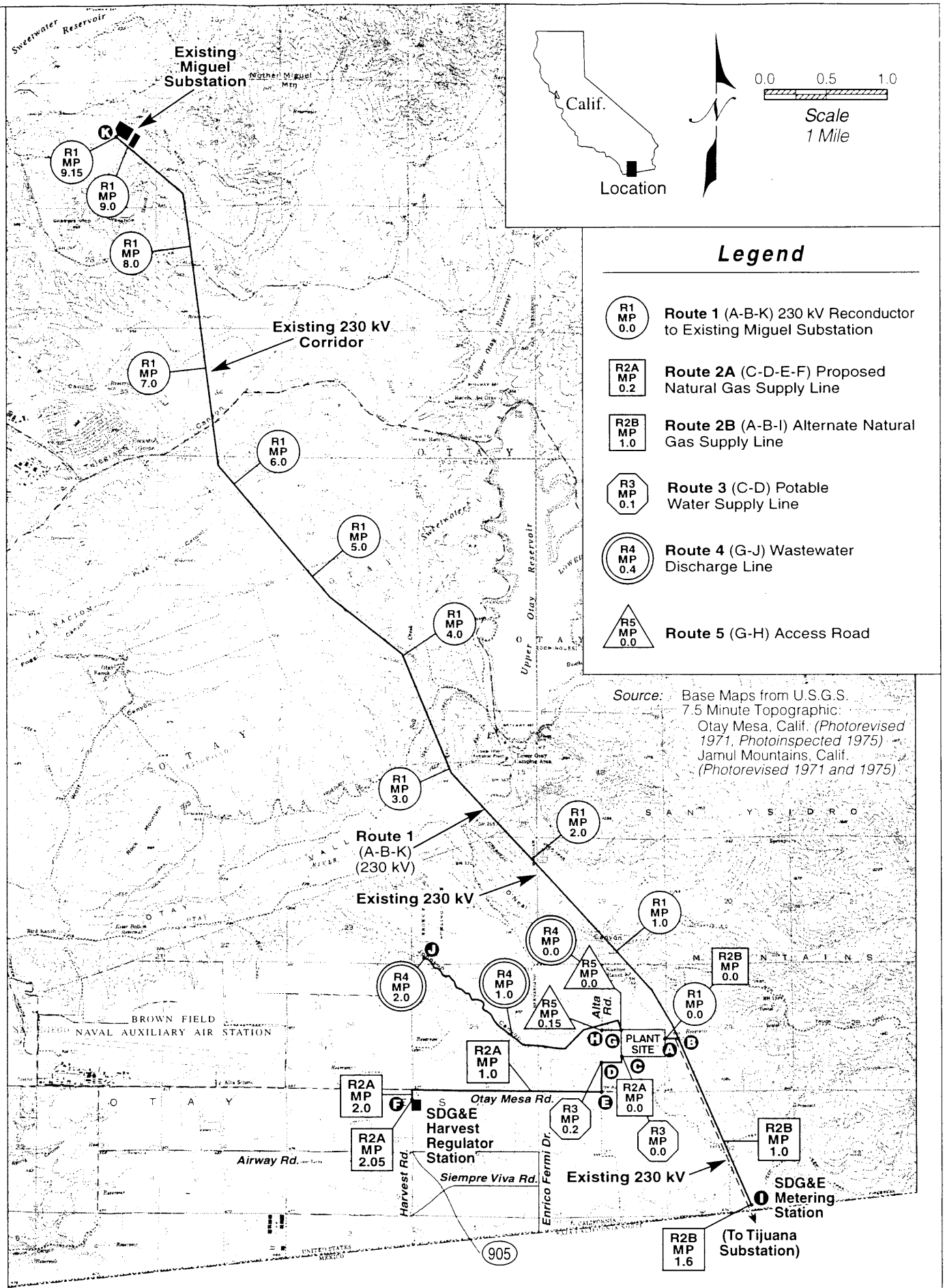
The ground surface at the 46-acre property gently slopes from approximately 708 feet above sea level (ASL) at the northeast corner to a low of approximately 625 feet ASL at the south-central property line. The site will be cut and filled to provide a level area for the power island complex at an elevation of

Explanation

- **(1)** Route 1 – 230 kV Reconductor to Existing Miguel Substation
- **(2A)** Route 2A – Proposed Natural Gas Supply Line
- **(2B)** Route 2B – Alternate Natural Gas Supply Line
- **(3)** Route 3 – Potable Water Supply Line
- **(4)** Route 4 – Wastewater Discharge Line
- **(5)** Route 5 – Access Road

Sweetwater Reservoir
Sweetwater River
Existing Miguel Substation
Proctor Valley Rd.
San Diego County
City of Chula Vista
Upper Otay Lake
JAMUL MOUNTAINS
Jamul Ck.
Otay Lakes Road
Chula Vista
Eastlake Residential Area
San Diego Bay
Telegraph Canyon Rd.
L Street
Existing Miguel-Tijuana 230 kV Corridor
United States Olympic Training Center
Lower Otay Lake
(1)
George F. Bailey County Correctional Facility
SAN YSIDRO MOUNTAINS
Otay Valley Rd.
Otay River Valley
City of Chula Vista
San Diego County
O'Neal Cyn.
Johnson Cyn.
Richard J. Donovan Correctional Facility
Otay River
San Diego
City of San Diego
Lone Star Rd.
Brown Field Municipal Airport
La Media Rd.
Harvest Rd.
(4)
(5)
(3)
(2A)
(2B)
Otay Mesa Generating Plant Site
MESA
OTAY
Heritage Rd.
Cactus Rd.
Britannia Blvd.
Otay Mesa Rd.
Sanyo Ave.
Enrico Fermi Dr.
Alta Rd.
Airway Rd.
Siempre Viva Rd.
BAJA CALIFORNIA
(To Tijuana Substation)
San Ysidro
Tijuana River
Carretera al Aeropuerto
Tijuana International Airport
Truck Route
MEXICO
0 0.5 1.0
Approximate Scale 1 Mile
Calif.
Location Map

Otay Mesa Generating Project	Figure 1.5-1. GENERAL LOCATION MAP	1999
Otay Mesa Generating Company, LLC		



Otay Mesa Generating Project	Map 1.5-1. PROJECT LOCATION MAP	1999
Otay Mesa Generating Company, LLC		

approximately 665 feet ASL. There are two ephemeral drainages near the plant site that typically flow only during storm events. The site is undeveloped and consists primarily of fallow agricultural land. The site is zoned for mixed industrial uses and is located in an area that is planned for industrial and commercial development. Current land uses in the site vicinity include fallow agricultural land, the Richard J. Donovan State Correctional Facility to the west-northwest, and several businesses located at the former Kuebler Ranch to the north of the plant site. An existing 230 kV transmission line is located adjacent to the eastern border of the 46-acre property. The nearest residence is located approximately 0.7 mile to the southwest of the plant site along Otay Mesa Road, about 0.2 mile west of Alta Road.

Appendix L contains the assessor's parcel number and property owners' names and addresses for all parcels within 500 feet of the linear facilities and 1,000 feet of the plant site.

1.5.2 Facility Description

The Project is a combined cycle power plant. It includes two power islands, a switchyard, control and administrative buildings, air cooled condensers, storage tanks, parking, and other ancillary facilities. The project also includes offsite 230 kV transmission facilities for electrical interconnection and pipelines for natural gas supply, water supply, wastewater discharge, and site access.

Each power island will consist of an advanced technology combustion turbine (CTG), a heat recovery steam generator (HRSG), and a steam turbine generator (STG). Together, the two power islands will be nominally rated at 510 MW.

The Applicant intends to make a final selection of the combustion turbine supplier following a competitive selection process to be conducted prior to final engineering. Standard configurations from ABB Power Generation Co., (ABB KA-24), the General Electric 7FA, and the Siemens-Westinghouse 501F are expected to be considered.

The CTG converts thermal energy produced by the combustion of natural gas into mechanical energy. This mechanical energy is used to drive the electric generator and gas compressor. The two CTGs will be equipped with an inlet air evaporative cooling system to enhance performance on hot days. Each CTG generator is nominally rated at 170 MW (70° F and 77% relative humidity).

Each CTG will exhaust into a heat recovery steam generator. The HRSG design will be a sliding-pressure, unfired, dual-pressure reheat type with horizontal gas flow. Each HRSG includes inlet and outlet ductwork and a 100-foot-tall stack.

The HRSG will produce steam for the steam turbine generator. The steam turbine converts thermal energy from steam into mechanical energy that drives the unit's generator. The total net output of each unit is approximately 255 MW with a combined net output of 510 MW for the two unit plant. The STG generator is designed for an output nominally rated at 90 MW.

A detailed description of the Project components is presented in Section 3.4 (Facility Description), Section 3.5 (Facility Civil/Structural Features), Section 3.6 (Transmission Facilities), and Section 3.7 (Offsite Pipelines and Access Road).

Heat rejection for the power cycle will be accomplished with air cooled condensers for the STG, a recirculating water system, and auxiliary cooling water heat exchangers.

The Project is designed to have very low emissions of air pollutants. Of its size, it will be one of the cleanest thermal plants in the world. Oxides of nitrogen (NO_X) will be controlled by a combination of

dry low NO_x combustors and post combustion control. The proposed post combustion control is SCONOx™, a recyclable combustion catalyst that oxidizes CO to CO_2, and NO to NO_2. Alternatively, selective catalytic reduction (SCR) may be used if SCONOx™ can not meet the existing BACT - 2.0 ppmvd at 15 percent O_2. NOx emissions will be controlled to meet a permit limit of 2.0 ppmvd at 15 percent O_2 with a target limit of 1.0 ppmvd at 15 percent O_2.

Emissions of carbon monoxide (CO) will be reduced by good combustion engineering and control. CO emissions will be controlled to 6 ppmvd at loads greater than 73 percent and 10 ppmvd at loads of less than 73 percent. Volatile organic compounds (VOC) will be reduced by an estimated 90 percent with the SCONOx™ system. Additionally, sulfur dioxide (SO_2), and particulates less than 10 microns in size (PM_{10}) will be reduced by the use of natural gas as the plant's sole fuel type. The SCONOx™ system does not use ammonia.

1.5.3 Site Layout

Figure 3.4-2 in Section 3.0 provides a site layout showing the location of the generating plant's components. Figure 3.3-1 in Section 3.0 shows the site elevation and the project's components. Figure 1.5-2 presents an artist's rendering of the project. Figure 1.5-3 presents a photographic reproduction of the existing site area and a computer model simulation of the generation plant after construction.

1.5.4 Transmission Interconnection

The Project will connect to San Diego Gas & Electric's (SDG&E's) Miguel substation via the existing Miguel-Tijuana 230 kV transmission line. According to the transmission interconnection report prepared by San Diego Gas and Electric, an approximately 9.05-mile long section of the Miguel-Tijuana line may need to be reconductored (refer to Figure 1.5-1). The interconnection to the Miguel Substation will also require construction of a short (about 0.1 mile) section of new 230 kV transmission line facilities between the switchyard (on the northeast portion of the plant site) and the existing Miguel-Tijuana line to the east. Refer to Map 1.5-1 for more detailed location information.

The existing 230 kV transmission route which may be reconductored has existing access roads over its entire length. Construction would result in minimal disturbance associated with the addition of six conductors to the existing SDG&E towers. These existing SDG&E towers were originally designed to accept six more conductors.

The need for reconductoring of the existing 9.05-mile long section of transmission line will continue to be discussed between Otay Mesa Generating Company, LLC, and SDG&E and the California Independent System Operator. In addition, the cost of reconductoring for a system-wide benefit, including mitigation expenses related to the existing line, will be continued to be discussed between the three parties.

1.5.5 Fuel Gas and Interconnection

The Project will be fueled by natural gas. There is no oil back-up fuel supply. Natural gas at approximately 275 to 800 psig will be delivered to the site via an interconnection to SDG&E gas supplies in the project vicinity. The Project will obtain its gas supply by interconnection to SDG&E's Pipeline 2000 Project that is currently under construction. It is currently anticipated that SDG&E will construct an approximately 2.05-mile-long pipeline between its Harvest Regulator Station and the plant site (Route 2A). Route 2A would be constructed almost entirely within existing roadways (Alta Road, Otay Mesa Road, and Harvest Road). Alternately, a 1.6-mile-long cross county pipeline interconnection to an SDG&E metering station near the U.S./Mexico Border (Route 2B) could be utilized. Refer to Figure

Otay Mesa Generating Project	**Figure 1.5-2. ARTIST'S RENDERING**	1999
Otay Mesa Generating Company, LLC		

Otay Mesa Generating Project Otay Mesa Generating Company, LLC	**Figure 1.5-3** VISUAL SIMULATION OF GENERATING PLANT FROM SOUTHWEST	1999

1.5-1 and Map 1.5-1 for more information.

1.5.6 Water Supply

The proposed project will utilize air cooled condensers (i.e., dry cooling); thus, the daily water supply needs for the facility are relatively low (300,000 gallons/day on average and a small fraction of the amount of water needed by wet cooling facilities). The source of water for the facility will be potable water supplied by the Otay Water District. Water will be used for domestic uses, fire water, cycle makeup, combustion turbine evaporative cooler makeup, and miscellaneous plant uses. The Applicant will construct a short pipeline (0.2 mile) to connect the plant with the existing water main in Alta Road (refer to Route 3 on Figure 1.5-1 and Map 1.5-1).

1.5.7 Hazardous Materials and Waste Management

The Project has been designed to minimize the type and quantities of hazardous materials required for plant operation. Where choices of materials present themselves, materials with reduced hazards will be selected. Hazardous material storage and handling facilities will be designed with redundant containment to minimize the impact of spills. The Applicant's proposed design using air-cooled condensers for cooling versus traditional cooling towers negates the need for various water treatment chemicals (e.g., no sulfuric acid, sodium hypochlorite, or scale inhibitors needed). Additionally, the Applicant proposes to use SCONO ^{TM} to control air emissions of NO_x, thereby avoiding the need to store and use ammonia for traditional NO_x control via SCR. If SCONO ^{TM} can not meet BACT, the Applicant would use a 19.5 percent aqueous ammonia solution for air emission control systems. Although more expensive, aqueous ammonia is significantly less hazardous than anhydrous ammonia in the event of an accidental release.

Non-hazardous solid wastes generated from routine maintenance activities and office operations will be recycled to the extent practical, and the remainder removed on a regular basis by a licensed hauler and disposed of at a licensed disposal site.

Used oil and small amounts of other hazardous wastes will be generated by plant operations. First priority will be given to recycling these wastes. Wastes that cannot be recycled will be transported by a licensed hauler to a disposal site that is licensed to receive these wastes. Estimates of the quantities of hazardous waste that will be generated during the operation of the project are low enough that the project will qualify as a "Small Quantity Generator" under state and federal waste regulations.

1.5.8 Process Wastewater Discharge

The combined final wastewater discharge from the plant will include the following streams: sanitary drains, CTG evaporative cooler blowdown, RO system reject, HRSG blowdown and steam cycle drains, and oil water separator discharge. The combined wastewater stream is estimated to average 72 gpm (104,000 gpd) and will be directed to the local sewer for disposal. The discharge to the local sewer (City of San Diego) will involve construction of an approximately 2-mile long pipeline to an interconnection point in Johnson Canyon (Route 4 on Figure 1.5-1 and Map 1.5-1). Process waste characteristics are summarized in Table 3.4-4 in Section 3.0. Applicable wastewater treatment standards will be complied with.

1.5.9 Access Road

Access to the plant site will be via Alta Road (refer to Figure 1.5-1 and Map 3.2-1) and a new 0.15 mile-long, 2-lane road segment (Route 5) to be constructed between Alta Road and the northwest corner of

the plant site.

1.6 PLANT OPERATION

The Project will operate as a base load unit (8,000 hours per year or more). The plant will be designed with a high degree of automation. An estimated 25 full-time employees will be required to operate and maintain the plant. The plant will be staffed 24-hours per day.

Planned maintenance will be coordinated and scheduled to reduce the impact of having a unit shut down for maintenance and overhauls. Normally, this work will be planned during the spring period when the need for electricity is reduced.

1.7 SAFETY

The design of the plant has been developed to ensure the safety and health of both workers and the general public. Design and construction of the facility will be in accordance with the current Uniform Building Code Seismic Zone 4 requirements and current California Building Code requirements.

Safety and emergency systems will be incorporated into the design and construction of the facility to ensure safe and reliable operation. Worker safety programs will be developed for both construction and operation, and implemented to assure compliance with federal and state occupational safety and health requirements.

A detailed discussion of safety features and emergency systems is presented in Sections 4.1 and 4.2.

1.8 ENVIRONMENTAL CONSIDERATIONS

1.8.1 Introduction

The AFC for the Project addresses the following environmental resource issues in detail in Section 5.0, Environmental Information:

- Air Quality
- Geological Hazards and Resources
- Agriculture and Soils
- Water Resources
- Biological Resources
- Cultural Resources
- Paleontological Resources
- Land Use
- Socioeconomics
- Traffic and Transportation
- Noise
- Visual Resources
- Waste Management
- Hazardous Materials Handling
- Public Health
- Worker Safety
- Cumulative Impacts.

The Applicant has minimized potential environmental impacts through project design measures,

including facility siting and incorporation of proposed mitigation measures into the proposed project. The Project will result in insignificant environmental impacts.

However, with any industrial project of this magnitude, there are environmental issues to be addressed. For this project, the key environmental issues are air quality, noise, biological resources, visual resources, and cultural resources. A brief discussion of the primary environmental issues follows.

1.8.2 Air Quality

The project area in San Diego County is designated as an attainment area for nitrogen oxides (NOx), sulfur dioxide (SO_2), and carbon monoxide (CO). The area is designated as non-attainment for both the federal and state ozone (O_3) standards. For particulate matter (PM_{10}), the area is designated as not classified for the federal standards and non-attainment for the state standard.

The Otay Mesa Generating Project is classified as a major source under San Diego Air Pollution Control District (SDAPCD) regulations (Rule 20.1 and 20.3). The SDAPCD has been delegated authority for Prevention of Significant Deterioration (PSD) by the US EPA as outlined in Rule 20.7.

The Project will introduce an innovative NOx control technology known as SCONOx™ which will improve significantly on NOx control efficiency as compared to previous technologies, and will comply with requirements for Lowest Achievable Emission Rate (LAER). The proposed permit limit for NOx is 2.0 ppmvd at 15 percent O_2 for a three-hour average. The target goal for NOx will be 1.0 ppmvd NOx at 15 percent O_2 for a 24-hour average. The SCONOx™ system will also reduce carbon monoxide in order to meet requirements for Best Available Control Technology (BACT) to a level of 6 ppmvd at 15 percent O_2 at turbine load conditions of 73 percent or greater and 10 ppmvd at 15 percent O_2 for low load conditions. An added benefit of SCONOx™ is expected to be a reduction in volatile organic compound (VOC) emissions of approximately 90 percent.

Otay Mesa Generating Company, LLC is requesting that the potential to emit for nitrogen oxides be limited by an enforceable emission cap of 100 tons per year. This proposed limit is based on the Applicant's willingness to install and demonstrate target innovative pollution controls as discussed later in this section.

While the Applicant is committed to this innovative control technology, it is recognized that the SCONOx™ system is not currently commercially available. However, the Applicant anticipates over the course of the next year, such 2.0 ppmvd guarantees will be available. Should SCONOx™ not be available, or fail to perform as expected during the multi-year demonstration period, selective catalytic reduction (SCR) and oxidizing catalysts will be installed to control emissions of NOx, CO and VOC. Details of the proposed innovative technology program for SCONOx™ are provided in this AFC.

Dispersion modeling of the impacts of the Project was accomplished with the USEPA Industrial Source Complex, Short-Term (ISCST) model, Version 3. The screening version of the Complex Terrain Dispersion Model (CTScreen) was also used to simulate impacts of particulate matter in areas of complex terrain. The modeling indicates that the project will comply with federal and state ambient air quality standards.

The Applicant is currently obtaining emission reduction credits (ERC's) for nitrogen oxides. The ERC's are being purchased from the existing ERC bank, and are being created by an innovative program of mobile emission reduction credits.

The California ISO has identified San Diego as an area where new generation is critical. The Otay

Mesa Generating Project is the cleanest and most efficient solution to this problem.

In addition, dirtier plants in San Diego could conceivably run less with the state-of-the-art, baseload Otay Mesa Generating Plant in operation.

1.8.3 Noise

There are only three structures of any type within 1 mile of the plant site. Of these structures, one is a residence on Otay Mesa Road approximately 0.7 mile southwest of the plant. Potentially sensitive noise receptors beyond this 1 mile radius include: a group of three residences on Otay Mesa Road approximately 6,200 feet southwest of the plant site, the R. J. Donovan Correctional Facility approximately 5,900 feet northwest of the plant site and the G.F. Bailey Correctional Facility approximately 5,500 feet north of the plant site. A small commercially zoned parcel exists near the southwest corner of the plant property. The remainder of the land surrounding the plant site is zoned industrial.

Construction of the Project will occur during daytime hours only and no significant construction noise impacts are anticipated.

The plant will be designed to conform with a nighttime commercial level of 70 dBA at the property line of the overall 46-acre parcel. A design level of 40 dBA will be used for all residences and sensitive receptors. At this level, the plant will be rendered essentially inaudible at all sensitive receptor locations. No significant noise impacts from operation of the proposed project would occur.

1.8.4 Biological Resources

The Otay Mesa region of San Diego County contains a number of sensitive plant and animal habitats. The most notable are vernal pools and Diegan coastal sage scrub. Vernal pools are rare habitats that occur on undeveloped mesa tops and support a unique succession of floral species. Otay Mesa mint is a Federally and State listed species associated with vernal pool habitat. Diegan coastal sage scrub is comprised of low soft woody subscrubs located on dry sites. This habitat supports several protected plant and animal species including the threatened California gnatcatcher.

The proposed project lies within the Multiple Species Conservation Program (MSCP) study area. The MSCP is one of three subregional habitat planning efforts in San Diego County that contribute to preservation of regional biodiversity. This planning effort provides guidance to the project for mitigation and compensation of impacts on plant and animal species habitat.

The plant site consists of a mix of abandoned agricultural land and nonnative grasslands. The site was surveyed in April of 1997 and in February through June of 1999. No sensitive plant or animal species were identified on or near the plant site.

The existing SDG&E Tijuana - Miguel 230 kV transmission line (Route 1) traverses a variety of habitat types including Diegan coastal sage scrub, nonnative grassland, agricultural land, disturbed habitat, urban/developed land and other areas (see Table 5.6-1). There are existing access roads to the transmission towers which are maintained by SDG&E. If required, reconductoring of the SDG&E transmission line will involve use of the existing roads and limited activity at each tower location and at pull sites.

Access to the SDG&E transmission line corridor was available during the preparation of the AFC. Additionally, a considerable amount of information about the 230 kV transmission line right of way exists from prior biological work for the East Otay Mesa Specific Plan and the Multiple Species

Conservation Program. This information was used in the preparation of the AFC as well.

The proposed gas pipeline route to the Harvest Regulator Station (Route 2A) is located in disturbed road rights of way or nonnative grassland. Route 2A was surveyed in 1997 and again in 1999. No sensitive species were identified by field surveys along this route.

The wastewater discharge pipeline (Route 4) runs from the plant site down Johnson Canyon to a connection with an existing City of San Diego sewer line in Johnson Canyon. The route was surveyed in 1997 and again in 1999. Several sensitive plant and animal species occur in Johnson Canyon including one locale of Otay tarplant, which is protected by State natural resource agencies. Routing of the sewer pipeline was a collaborative effort between biologists and civil engineers. The resulting route is located primarily on the north side of the intermittent drainage in Johnson Canyon and avoids sensitive species including the Otay tarplant.

To mitigate the impact of the project on sensitive plant and animal species the following measures are proposed:

- Pre-construction surveys for sensitive biological species will be performed at construction areas to refine locations of sensitive resources and to develop plans for avoiding impacts on sensitive resources to the extent feasible. Taking of Federal and State listed Threatened or Endangered species will be avoided, except as permitted.

- A monitor will be provided during construction to educate contractors of sensitive biological resource issues and areas intended for avoidance. Sensitive resources near construction areas will be identified and clearly marked for avoidance.

- Following construction, temporary construction areas will be allowed to naturally revegetate with predisturbance species.

- Best Management Practices for pipeline construction will be implemented to ensure that movement of groundwater from upland habitats to seep areas in the drainage within Johnson Canyon will not be permanently disrupted.

In addition to these mitigation measures, compensation for permanent biological impacts following the guidance in the County of San Diego Biological Mitigation Ordinance will be provided. Post-construction surveys will be conducted to determine the actual areas of impacts compared with pre-construction conditions. This acreage will be used to calculate the actual compensation acreage. Compensation will consist of the acquisition of land for preservation according to the compensation ratios in the draft Biological Mitigation Ordinance.

With implementation of the proposed mitigation, no significant impacts on biological resources are expected to result from this project.

1.8.5 Cultural Resources

Otay Mesa is characterized by a large number of archaeological sites. Many of these sites have been impacted by agricultural tillage, road construction, vegetation clearing and other ground disturbing activities. As a result, in some instances, artifacts from these sites are diffused over a large area. Depending upon the depth of till and the depth of the deposit, undisturbed portions of some sites may remain beneath the disturbed till zone. This can only be determined by subsurface archaeological testing.

An archaeological survey of the 46-acre property identified three archeological sites. Due to previous agricultural tilling the surface of these sites is heavily disturbed. The existence of undisturbed subsurface portions has yet to be determined by archaeological testing. Two of these sites are located on the plant site and will be impacted by construction. A third site is located at the perimeter of the site and may be possible to avoid. The Applicant proposes to mitigate project impacts on these archaeological resources.

Prior to commencement of construction, these three sites will be tested to determine their significance. If the two sites located on the plant site are determined to be historic or unique resources under CEQA, data recovery in accordance with CEQA and related applicable regulations will be undertaken. If the site on the perimeter of the plant site is determined to extend into the construction footprint and constitutes an historical or unique resource under CEQA, the first consideration will be to design the plant to avoid disturbance to the site. If this is not feasible, then data recovery will be undertaken.

The linear facilities, including six pull sites along Route 1 (existing SDG&E 230 kV transmission line route which may be reconductored) have also been surveyed for archaeological resources either during the preparation of this AFC or via previous surveys, as discussed in Section 5.7 (Cultural Resources).

Several historic and prehistoric archaeological sites have been identified within 150 feet of the routes of the linear facilities (including pull sites). Some of these appear to be considered a historical resource or unique archeological resource under CEQA, and potentially eligible for inclusion in the California Register of Historic Resources or National Register of Historic Places. Some have not yet received determinations regarding their significance.

Proposed mitigation measures are the following:

- Whenever feasible, the sites will be avoided.
- Sites to be avoided will be flagged or fenced to protect them from construction damage.
- Construction contractors will be given training in the need to protect archaeological resources. They will be required to avoid flagged or fenced areas.
- Archaeological monitoring will be provided when work is occurring near archaeologically sensitive locations.
- If an archaeological site cannot be avoided, it will receive archaeological testing to determine its significance.
- Impacts to significant sites that cannot be avoided will be mitigated by data recovery.
- Emergency discovery procedures that mirror those set forth in 36CFR800.13 will be employed during construction.

1.8.6 Visual Resources

The proposed project site is located in a predominantly undeveloped area of rolling hills and rural/ agriculture lands designated for future industrial and commercial uses by the East Otay Mesa Specific Plan.

The Applicant proposes to provide an appropriate landscape plan for the project in consultation with the San Diego County Planning Department. The landscape plan will provide a transition between the

industrial character of the site and surrounding views.

If required, reconductoring of the existing SDG&E Miguel-Tijuana 230 kV transmission line will not significantly affect visual quality. Although the existing line is seen in the foreground of sensitive views, the visual impact of bundling the lines would be minimal. As shown in the photo-simulations presented in Figures 5.13-13b and -14b, there will be no apparent modification of the existing towers, and the additional set of conductors would be hardly noticeable.

1.8.7 Decommissioning

The economic life of the Project is at least 30 years. The plant's economic life may be extended through equipment upgrades and modifications prior to the end of the 30 year equipment useful life period. At some point in the future, the Otay Mesa Generating Plant may cease operation and be removed from service. At that time, the facility site may either be returned to its natural state or, more likely, utilized for other industrial purposes. The options for removal of the plant from service (i.e., decommissioning) may range from deactivation and mothballing to removal of all equipment and appurtenant facilities.

To ensure that decommissioning will be completed in a manner that both protects public health and safety and is environmentally acceptable, the Applicant will submit a specific decommissioning plan to the CEC prior to the commencement of decommissioning activities.

1.9 SUMMARY

The impacts associated with construction and operation of the proposed Otay Mesa Generating Project have been considered throughout the planning of this facility. Screening criteria were used to select sites for the power plant and associated linears so as to minimize adverse impacts. In addition, engineering design features such as post-combustion NO controls were selected to protect local and regional resources. In those instances where a potential for impacts to the environment has been identified, mitigation measures have been selected to minimize potential impacts.

The proposed 510 MW Otay Mesa Generating Project will provide benefits to the local economy and meet a critical and immediate capacity shortage in San Diego County. By employing advanced combustion turbine technology, dry cooling, and state-of-the-art air emission control technology, the project will create a highly efficient and environmentally superior source of electricity for California's restructured energy market, including the San Diego region.