

**BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT COMMISSION
OF THE STATE OF CALIFORNIA**

**APPLICATION FOR CERTIFICATION
OF THE
CALPINE KING CITY LM 6000 PROJECT
BY CALPINE CORPORATION**

**DOCKET No. 01-EP-6
APPLICATION COMPLETED
APRIL 11, 2001**

Decision

On May 2, 2001, the Energy Commission approved the Application for Certification for the King City LM6000 Project (the project) under those limitations presented as conditions contained in this Decision. The proposed project was the subject of a Committee hearing and subsequent analysis by the Energy Commission staff. The proposal meets criteria that the Energy Commission staff developed to implement the Governor's Executive Orders expediting the permit process for peaking and renewable energy generating plants. This Decision has been completed in an expedited timeframe, as called out in the Executive Orders.

Executive Orders

On January 17, 2001, the Governor proclaimed a State of Emergency due to constraints on electricity supplies in California. As a result, the Governor issued Executive Orders D-22-01, D-24-01, D-25-01, D-26-01, and D-28-01 to expedite the permitting of peaking and renewable power plants that can be on line by September 30, 2001, and provide power to California. Emergency projects are exempt from the California Environmental Quality Act pursuant to Public Resources Code section 21080(b)(4). Since the Governor has declared a State of Emergency, the Energy Commission may authorize the construction and use of generating facilities under terms and conditions designed to protect the public interest. (Pub. Resources Code section 25705.)

Project Description

Calpine Corporation (the Applicant) proposes to develop a nominally rated 50 megawatt (MW), natural gas-fired simple-cycle peaking power plant. The project would be located on a 6.7-acre, cleared and graded portion of leased property adjacent to the Applicant's existing cogeneration power plant at 750 Metz Road, King City, in Monterey County. The land is zoned for industrial uses. The area is currently used for the existing cogeneration plant's septic tank. Calpine is currently renegotiating the lease to include the project.

The Applicant wishes to obtain an air quality control permit to operate the project 8,760 hours per year, the equivalent of 365 days per year, 24 hours per day. Calpine has an umbrella contract with the California Department of Water Resources (DWR) to sell electricity to the State for 20 years. Under this Calpine-DWR contract, Calpine must make power from the facility available to DWR for up to 2,000 hours a year. Calpine plans to sell any generation it does not sell to DWR on the competitive market. Calpine expects to operate the project for the life of the DWR contract, i.e., 20 years, or until the DWR contract is terminated and the facility is unprofitable.

The project consists of one, 50-MW General Electric LM 6000-PC Sprint, simple-cycle, gas turbine generator. It will require no new linear facilities. The project will interconnect to PG&E's electricity transmission system through a radial tie to the existing lines in the northwest corner of the King City Co-Gen property leasehold. Natural gas will be provided through an on-site connection to the existing facility's PG&E gas supply.

In order to qualify for the Energy Commission's expedited review, the project must begin commercial operation by September 30, 2001. Project construction will take between two and three months to complete and will begin upon Commission approval of the application and receipt of an Authority to Construct (ATC) permit from the Monterey Bay Unified Air Pollution Control District (Air District).

Public Hearing

On April 19, 2001, Michal C. Moore, the Commissioner designated to conduct proceedings on this proposal, held a public site visit and informational hearing in King City to discuss the project with governmental agencies, community organizations, and members of the public. At the hearing, the Applicant described the project, and Energy Commission staff explained the Energy Commission's expedited review process. Local residents and other members of the public made comments and had the opportunity to ask questions about the project. Representatives of several agencies attended the hearing, including: Keith Breskin, City Manager; Richard Zeckentmayer, Mayor Pro Temp; and Fred Thoits, Air District Engineering Division Manager. Many members of the community spoke in support of the project (see Public Comment section). There were no questions or concerns raised by the public at this hearing.

Issues of Concern

The Energy Commission Staff Assessment was received into the record on April 25, 2001. A letter from Keith Breskin, City Manager of King City, dated April 24, 2001, pertaining to Calpine's Use Permit Application, was received into the record on April 25, 2001. The following issues were identified at the hearing and during the review and consideration period that followed.

Natural Gas Supply

Commissioner Moore inquired about the capacity of PG&E's natural gas pipeline and the long-term reliability of natural gas supplies to meet the needs of both the peaker plant and the adjacent Calpine cogeneration plant. The Applicant explained that the PG&E gas pipeline extends 40 miles to the east and was originally built to supply the existing cogeneration plant. The Applicant stated that the current pipeline configuration is adequate to supply gas to both the existing plant and the proposed simple-cycle unit; however, if additional increases in power plant capacity become desirable in the future, it would be necessary for PG&E to increase its compression or construct a parallel gas line.

Air Quality

Commissioner Moore sought clarification on the need for offsets to comply with air quality standards. The project will incorporate Selective Catalytic Reduction (SCR) as the Best Available Control Technology (BACT) to limit NO_x emissions to 5 ppm or less, as required under the Air District's regulations for power plants fired with natural gas. Fred Thoits, Engineering Division Manager with the Air District noted that a NO_x emissions rate of 5 ppm or less should be readily attainable using BACT. Since the Applicant will limit NO_x emissions to within the existing limit for the cogeneration facility, the Air District will require no offsets for NO_x.

At the same time, Mr. Thoits noted that the proposed emissions rate for particulate matter less than 10 microns (PM₁₀) -- 60 pounds per day -- would require offsets, and that offsets may be problematic because there are no local emission credits available, and the regional offset bank is exhausted. He stated that the Air District is optimistic that a solution is at hand with either temporary offsets or with the creation of the California Air Resources Board's (CARB's) Emission Reduction Credit Bank authorized under Governor Davis' Executive Order D-24-01. The Applicant indicated that it was in discussions with CARB regarding procedures for obtaining the credits on a lease basis from this statewide emission bank. For a further discussion of the Emission Reduction Credit Bank, see the Staff Assessment at pp. 6-7.

The Applicant applied for an ATC permit from the Air District on March 30, 2001. On April 11, 2001, the Air District issued its 30-day notice of the intent to issue an ATC permit for this project.

The Staff's Assessment addressed the issue of fugitive dust which, if unmitigated, is a significant concern and which the ATC permit does not address. The Staff's proposed condition of certification (AQ-1) provides appropriate mitigation of this concern.

Biological Resources

A site survey conducted by Foster Wheeler Environmental on behalf of the Applicant on March 15, 2001, found no Threatened, Endangered, or Sensitive (TES) species located on or adjacent to the site. A search of the California Natural Diversity Database (CNDD) indicated that a Bank Swallow (*Riparia riparia*) nesting area exists within one mile of the project site, and that the site is within traditional range of the San Joaquin Kit Fox (*Vulpes macrotis mutica*) and is a potential habitat for the Western Burrowing Owl (*Athene cunicularia hypugaea*). The conditions proposed in the Staff Assessment provide appropriate mitigation measures for these concerns.

Water Consumption

The project will use raw well water through a connection to the existing cogeneration facility's water supply system. On-site, trailer-mounted or skid-mounted water treatment facilities, consisting of reverse-osmosis and demineralization units, will provide demineralized water for turbine injection and cooling. Wastewater will be returned to the existing facility's wastewater system. The facility's peak water-consumption rate will be approximately 120 gallons per minute (gpm). Process wastewater will be discharged to the adjacent Gilroy Foods facility. Gilroy Foods will then discharge it to the King City Sewage Treatment Plant under their existing permit.

Soil

During project construction and operation, wind and water action can erode unprotected surfaces. Areas of impervious surfaces can create increased runoff conditions and potentially erode unprotected down-gradient surfaces. The conditions proposed in the Staff Assessment provide appropriate mitigation measures for these concerns.

Hazardous Materials

No acutely hazardous materials will be used or stored on site during construction. During plant operation, anhydrous ammonia, an acutely hazardous material to be

supplied by the existing facility's ammonia system, will be used in the project's SCR unit. The amount of ammonia piped into the proposed facility would not pose a potential for significant impacts even in the event of a complete failure of the piping. The proposed storage and handling procedures for the project are sufficient to reduce the risk of accidental release and potential for impacts associated with hazardous materials to insignificant levels.

Noise

Exhaust noise levels from the gas turbine will be significantly attenuated by the SCR emission-control module and a stack silencer. The nearest sensitive receptor to the site is a residential development to the south. A 10-foot high, solid block wall borders this residential area, shielding houses in the development other than those located near the ingress/egress of the subdivision. The plant noise level at the nearest houses protected by the barrier is expected to be 40.1 dBA. The project noise level for the nearest unshielded houses, approximately 1,100 feet away, is expected to be 47.6 dBA. If the plant were to operate 24 hours a day, the noise levels would be 46.1 and 54.0 dBA for the shielded and unshielded houses, respectively. These levels are significantly less than the 65 dBA level considered acceptable for residential areas.

Land Use

The proposed project site is located on parcels designated as industrial by King City's general plan and zoning ordinance. The project is consistent with the City's land-use designation and zoning ordinance. The King City Council reviewed the proposed project at a special meeting on March 19, 2001. The Council expressed no objections at that time. However, a use permit must normally be obtained to construct a 75-foot flue gas stack, which is necessary for the project. The Commission's siting authority incorporates the City's requirements.

The City Planning Commission will be meeting on May 15, 2001 to consider the stack-height issue and the Planning Commission's recommendation will be considered by the City Council at its meeting on May 22, 2001. The City Manager for King City presented comment to the Commission indicating that the

City Council would otherwise grant a use permit in this case in view of the support from the community and the fact that the stack height is considered compatible with neighboring land uses and does not exceed the height of the existing stack at the Calpine cogeneration power plant. Any conditions that would otherwise be required by the City for a use permit shall be incorporated herein by reference if the City Council determines that certain conditions would normally be required to mitigate the stack height.

The project site is situated approximately 2,000 feet south of the Mesa Del Rey Airport, at an elevation of 35 to 40 feet below it. The project's 75-foot flue gas stack would also require authorization from the airport and the Federal Aviation Administration to ensure consistency with airport guidelines and regulations. The Applicant has filed a Notice of Proposed Construction or Alteration with the FAA on or about April 9, 2001. No impediment to this approval is anticipated as the proposed flue stack is the same height as the existing Calpine cogeneration flue stack.

Public Comment

Keith Breskin, City Manager, urged the Commission to approve the project, stating that Calpine is a good provider of energy services and jobs in the community. He stated that King City's police, fire, and emergency service resources would be adequate to meet the needs of the project.

Richard Zeckentmayer, Mayor Pro Temp, welcomed the development of the project to assist the state in this energy crisis.

Charles Krause, who is a planning commissioner and economic development commission member, speaking as a 25-year King City resident, strongly supported the project.

Byron Linn, a businessman and City Council member, endorsed the project and King City's effort to provide for the energy needs of the state.

Suzi Taylor, speaking for the Chamber of Commerce, noted the Chamber's support and encouragement of the project.

Bill Casey, a resident and business owner, supported the project and testified that Calpine has been a good neighbor and a provider of jobs in the community.

Francis Guidici, a member of the community, approved of the project and how it could help provide a reliable source of energy for the community.

John Buttgerreit, a real estate businessman, supported the project and praised the current Calpine Co-Gen plant as being virtually silent and invisible, and a good provider of economic support for the community.

Walter Winston, a local AM-FM radio station operator, encouraged the Commission to approve the project for public safety reasons.

Staff Assessment

On April 24, 2001, Energy Commission staff issued its Staff Assessment, which is incorporated herein by reference. Staff conducted a fatal flaw analysis and found no areas of major concern related to the project. All conditions contained in the Staff Assessment are hereby adopted as the Conditions of Certification for the Calpine King City LM 6000 Project.

Authority to Construct Permit

As noted above, the Applicant filed an application for an ATC permit with the Air District on March 30, 2001. The ATC permit is a requirement of the U.S. Environmental Protection Agency (USEPA). The application is subject to a 30-day notice and public review and comment period, which began on April 11, 2001. The ATC permit will become effective on the date designated by the Air District, including any modifications approved following the comment period. All conditions and any modifications thereto contained in the ATC permit shall be incorporated herein by reference on the effective date of the ATC permit.

TERMS OF CERTIFICATION, PERMIT VERIFICATION, AND AMENDMENT

The Calpine King City LM 6000 Project (the project) is a simple-cycle project that will operate during periods of high demand. Calpine (the Applicant) requests certification for the life of the project. Construction will begin upon certification by the Energy Commission and issuance of the Authority to Construct (ATC) permit by the Monterey Bay Unified Air Pollution Control District (Air District). Project construction will take between two and three months. The project is expected to begin commercial operation by September 30, 2001.

The project shall be certified for the length of Calpine's power purchase agreement with the California Department of Water Resources (DWR). If, at the expiration of its power purchase agreement with DWR, the project owner can verify that the project complies with the following continuation condition, the Commission shall extend the certification.

Verification: At least six months prior to the expiration of its power purchase agreement with the DWR, the project owner shall provide verification that the project will meet the following criteria in order to continue the permit through the life of the project:

1. The project is permanent, rather than temporary or mobile in nature.
2. The project owner demonstrates site control.
3. The project owner has secured permanent Emission Reduction Credits (ERCs) approved by the Monterey Bay Unified Air Pollution Control (Air District) and the California Air Resources Control Board (CARB). The ERCs must be adequate to fully offset project emissions for its projected run hours and must have been in place prior to the expiration of the temporary ERCs obtained from CARB if temporary ERCs were used for the initial operation of the project.

4. The project is in current compliance with all Energy Commission permit conditions specified in this Decision.
5. The project is in current compliance with all conditions contained in the ATC permit from the Air District.
6. The project meets all Best Available Control Technology (BACT) requirements under Air District rules, as established in the ATC permit, and all CARB requirements.

The certification shall expire if the project cannot meet the continuation criteria.

FINDINGS AND CONCLUSIONS

1. There is an energy supply emergency in California.
2. All reasonable conservation, allocation, and service restriction measures may not alleviate the energy supply emergency.
3. Public Resource Code section 21080(b)(4) exempts emergency projects from the requirements of the California Environmental Quality Act.
4. Executive Order D-28-01 states that [a]ll proposals processed pursuant to Public Resources Code section 25705 and Executive Order D-26-01 or this order [D-28-01] shall be considered emergency projects under Public Resources Code section 21080(b)(4).
5. The Calpine King City LM 6000 Project is a simple-cycle facility that will operate during periods of high demand.
6. The Application for Certification for the Calpine King City LM 6000 Project has been processed pursuant to Public Resource Code section 25705 and Executive Orders D-26-01 and D-28-01.
7. Pursuant to the Executive Orders cited above, the Calpine King City LM 6000 Project must be on line no later than September 30, 2001, in order to

help reduce blackouts and other adverse consequences of the energy supply emergency in the state.

8. In order for the Calpine King City LM 6000 Project to be on line by no later than September 30, 2001, it is necessary to substantially reduce the time available to analyze the project.
9. To the greatest extent feasible under the circumstances, the terms and conditions specified in this Decision (1) provide for construction and operation that does not threaten the public health and safety, (2) provide for reliable operation, and (3) reduce and eliminate significant adverse environmental impacts.

Approval

The Energy Commission finds that, with the mitigation identified (1) in the Application, as amended and augmented by Conditions of Certification contained in the Staff Assessment, (2) in the Authority to Construct permit, and (3) as otherwise described in the record and this Decision, the proposed facility will be designed, sited, and operated in a safe and reliable manner to protect the public interest. Therefore, the Energy Commission adopts this Decision, and the conditions referred to herein, and certifies the Calpine King City LM 6000 Project as described in this proceeding.

Monitoring Conditions

The project owner shall comply with the following monitoring conditions in addition to the Permit Verification process contained in this Decision and in addition to the General Compliance Conditions delineated in the Staff Assessment and incorporated herein by reference:

Start of Operations: The Calpine King City LM 6000 Project shall be on line by ***no later*** than September 30, 2001. If the Calpine King City LM 6000 Project is not operational by September 30, 2001, the Energy Commission will conduct a hearing to determine the cause of the delay and consider what sanctions, if any, are appropriate. If the Energy

Commission finds that the project owner failed to proceed with due diligence to have the Calpine King City LM 6000 Project in operation by September 30, 2001, the Applicant shall forfeit its certification.

BACT Standards: Operation of the Calpine King City LM 6000 Project shall be in compliance with all Best Available Control Technology (BACT) standards imposed by the Monterey Unified Air Pollution Control District in its Authority to Construct permit. Failure to meet these standards will result in a finding that the Calpine King City LM 6000 Project is out of compliance with the certification.

Three-Year Review: No later than 15 days after completion of the first three years in operation, the owner of the Calpine King City LM 6000 Project shall submit to the Energy Commission a report of operations that includes a review of the Calpine King City LM 6000 Project's compliance with the terms and conditions of certification, the number of hours in operation, and the demand for power from the facility during the three-year period.