State Of California

The Resources Agency of California

Memorandum

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To: Commissioner Jeffrey Byron, Presiding Member
Commissioner James D. Boyd, Associate Member

From: **California Energy Commission -**
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Subject: **PANOCHE ENERGY CENTER POWER PLANT PROJECT (06-AFC-5) ISSUES IDENTIFICATION REPORT**

Attached is the staff's Issues Identification Report for the Panoche Energy Center Power Plant project (06-AFC-5). This report serves as a preliminary scoping document that identifies the issues that Energy Commission staff believes will require careful attention and consideration. Energy Commission staff will present the issues report at the Informational Hearing and Site Visit to be held in December 12, 2006.

cc: Docket (06-AFC-5)
Proof of Service List

Attachment

PANOCHE ENERGY CENTER PROJECT

(06-AFC-5)

December 4, 2006

ISSUES IDENTIFICATION REPORT

CALIFORNIA ENERGY COMMISSION

Energy Facilities Siting Division

ISSUES IDENTIFICATION REPORT
PANOCHE ENERGY CENTER PROJECT
(06-AFC-5)

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ISSUES IDENTIFICATION REPORT

California Energy Commission Staff

This report has been prepared by the California Energy Commission staff to inform the Committee and all interested parties of the potential issues that have been identified in the case thus far. These issues have been identified as a result of our discussions with federal, state, and local agencies, and our review of the Panoche Energy Center project Application for Certification (AFC), Docket Number 06-AFC-5. The Issues Identification Report contains a project description, summary of potentially significant environmental issues, and a discussion of the proposed project schedule. The staff will address the status of issues and progress towards their resolution in periodic status reports to the Committee.

PROJECT DESCRIPTION

On August 2, 2006, Energy Investors Fund, LLC, submitted an Application for Certification (AFC) to construct and operate a simple-cycle power plant, the Panoche Energy Center (PEC), in an unincorporated area of western Fresno County. On November 7, 2006, the applicant submitted supplemental information to the AFC to address Energy Commission information requirements. On November 8, 2006, the Energy Commission accepted the AFC as data adequate for informational purposes.

The PEC would be a nominal 400 megawatt (MW) simple-cycle power plant consisting of four General Electric LMS100 natural gas-fired combustion turbine generators (CTG) and associated equipment. The PEC is designed as a peaking facility to meet electric generation load during periods of high demand, which generally occur during daytime hours, and more frequently during the summer portions of the year. The project is expected to have an annual capacity factor of approximately 57 percent, depending on weather-related customer demand, load growth, hydroelectric supplies, generating unit retirements and replacements, the level of generating unit and transmission outages, and other factors.

Associated equipment will include emission control systems necessary to meet the applicant's proposed emission limits. Nitrogen oxide (NO_x) emissions will be controlled at the power plant's stack by a combination of Ultra Low NO_x combustors in the CTGs and selective catalytic reduction systems using aqueous ammonia. An oxidation catalyst will be installed to limit stack carbon monoxide (CO) emissions.

The project site is approximately 12 miles southwest of the city of Mendota, 16 miles south-southwest of the city of Firebaugh and approximately 2 miles east of Interstate 5, adjacent to the Pacific Gas & Electric (PG&E) existing Panoche Substation. The proposed site and substation are located south of West Panoche Road. The facility site would be located on a 12.8-acre site within a 128-acre parcel which is currently in agricultural production with pomegranate trees and subject to a Williamson Act Contract. The contract status is an issue that will be addressed by the Energy Commission staff during the analysis phase of the certification process. The 128-acre parcel also includes two existing energy facilities, the Wellhead Power Peaking Plant and the CalPeak Power Peaking Plant, and the proposed Starwood Midway (06-AFC-10) peaking project facility site.

The construction laydown area, including parking, consists of an 8-acre parcel immediately south of the 12.8-acre plant site. The plant site and construction area are leased by the applicant from the property owners. The proposed project includes a 400-foot paved, 24-foot wide access road south of West Panoche Road to the plant site. A project-related activity is PG&E's planned expansion of its Panoche Substation by approximately 1.1 acres south of the existing substation boundary.

Process water for the cooling towers and other non-potable water uses are proposed to be supplied to the PEC from two new groundwater wells drilled onsite into the Westside Sub-basin of the San Joaquin Valley Groundwater Basin. These wells would draw water from a brackish aquifer. These wells would also supply facility showers, sinks, toilets, eye wash stations, and safety showers. Signs would be posted to alert personnel that water drawn from these wells is not for human consumption. Potable water would supplied to the PEC by a bottled water service.

Process wastewater will be disposed of using a proposed new, deep well injection system. The construction phase will have portable toilets with weekly servicing. During the operational phase, sanitary wastes will be directed to a septic system and leach field designed to treat the sanitary flow from the administration and control building and restrooms.

The PEC will connect to the electrical transmission system via a new 230-kilovolt (kV) line that will run 300 feet from the project site to the adjacent PG&E Panoche Substation.

Natural gas will be delivered to the site via a new 2,400-foot high-pressure, lateral pipeline that would connect to a PG&E high-pressure gas trunk line located east of PG&E's electrical substation. This pipeline would connect with the project on the eastern side of the site at a new gas metering station. At the plant site, the natural gas will pass through a flow-metering station, gas scrubber/filtering equipment, gas pressure control station, electric-driven booster compressors (when required), and a fuel gas heater prior to entering the combustion turbines.

The applicant expects to receive a license from the Energy Commission by August 2007, with construction of the project starting shortly thereafter assuming completion of project financing. Full-scale commercial operation is expected to begin during the third quarter of 2008. Electric power generated at the PEC facility will be sold to PG&E under a 20-year power purchase agreement between PEC and PG&E. Design of the plant and equipment selection is based on requirements in the agreement. The agreement was executed in April 2006 and requires that the facility be online by August 1, 2009.

POTENTIAL MAJOR ISSUES

This portion of the report contains a discussion of the potential issues the Energy Commission staff has identified to date. The Committee should be aware that this report might not include all of the significant issues that may arise during the case. Discovery is not yet complete, and other parties have not had an opportunity to identify their concerns. The identification of the potential issues contained in this report is

based on comments of other government agencies and on our judgment of whether any of the following circumstances will occur:

1. Potential significant impacts which may be difficult to mitigate;
2. Potential areas of noncompliance with applicable laws, ordinances, regulations or standards (LORS);
3. Areas of conflict or potential conflict between the parties; or
4. Areas where resolution may be difficult or may affect the schedule.

The following table lists all the subject areas evaluated and notes those areas where significant issues have been identified. Even though an area is identified as having no potential issues, it does not mean that an issue will not arise related to the subject area.

For example, disagreements regarding the appropriate conditions of certification may arise between staff and applicant that will require discussion at workshops or even subsequent hearings. However, we do not currently believe such an issue will have an impact on the schedule or that resolution will be difficult to achieve.

Major Issue	Subject Area	Major Issue	Subject Area
No	Air Quality	Yes	Noise
No	Biological Resources	No	Paleontological Resources
No	Cultural Resources	No	Public Health
No	Efficiency and Reliability	No	Socioeconomics
No	Electromagnetic Fields & Health Effects	Yes	Soils & Water Resources
No	Facility Design	No	Traffic and Transportation
Yes	Geological Hazards and Resources	No	Transmission Line Safety
No	Hazardous Materials	No	Transmission System Engineering
No	Industrial Safety and Fire Protection	No	Visual Resources
Yes	Land Use	No	Waste Management
No	Project Overview	No	Alternatives

This report does not limit the scope of staff's analysis throughout this proceeding, but acts to aid in the analysis of potentially significant issues that the VPP proposal poses. The following discussion summarizes each potential issue, identifies the parties needed to resolve the issue, and where applicable, suggests a process for achieving resolution. At this time, staff does not see any of these potential issues as non-resolvable.

LAND USE

The PEC will require partial cancellation of Williamson Act contract #367. The applicant has stated its intention to cancel 12.8 acres of the 128-acre contract parcel. The 12.8 acres would be the footprint of the PEC. Staff contacted Fresno County on December 1, 2006, and was told that cancellation proceedings have not yet been initiated by County staff on the applicant's cancellation request of November 6, 2006.

In order to find that the cancellation is consistent with the purposes of the Williamson Act, the Fresno County Board of Supervisors must make several findings relative to the specific site and surrounding existing land uses. Williamson Act cancellation proceedings will require at least two publicly-noticed meetings with Fresno County Board of Supervisors. Depending on the Board's agenda, cancellation could take up to one year. In addition, there is a 180-day appeal period for cancellations. As such, the time frame for cancellation and the appeal period could delay the Energy Commission's certification process.

NOISE

Energy Commission staff evaluates power plant operational noise impacts on noise-sensitive receptors by comparing the noise levels at the receptor, with the power plant operating, to the ambient noise levels at the receptor before the project is constructed. Specifically, staff compares power plant noise to the background (L_{90}) noise levels at the receptor during the nighttime hours, when people are most likely to be annoyed by excessive noise. AFC Section 5.12.2.1.2 states that the project estimated operational noise levels (project, plus ambient during the quietest four consecutive hours of the nighttime) at the nearest noise-sensitive residential receptors (homes) ML1 and ML2, 52 dBA and 58 dBA, respectively, would exceed the Fresno County nighttime noise limit of 45 dBA. These residences are located approximately 800 feet north, and 1,900 feet northeast of the center of the site, respectively.

AFC Section 5.12.2.1.2 also states that these estimated noise levels exceed the existing ambient noise levels by 10 dBA and 21 dBA at ML1 and ML2, respectively. This would create significant adverse noise impacts at these residences.

In order to ensure that the project will comply with the applicable local noise LORS (Noise Element of the County of Fresno) and that the project noise levels do not create significant adverse noise impacts at the nearest noise-sensitive receptors, the project operational noise levels shown above must be mitigated to meet the above requirements.

AFC Section 5.12.3, Mitigation Measures, states that the applicant and the applicant's engineers are assessing technically feasible noise mitigation measures including the possibility of removal of ML2 as a residence. This multi-family home is owned by the owner of the 128-acre parcel. In the AFC, however, the applicant does not specify the mitigation measures being considered, or the final numerical estimates for the project noise levels at these receptors after incorporating the effects of the additional mitigation measures considered. Neither does it commit to removal of ML2 as a residential use. In order to evaluate the project noise impact, staff needs to know the noise mitigation measures being considered, and these final noise level estimates at ML1 and ML2. As an alternative for ML2, staff needs to know if the current residents will be relocated prior to the start of project operation. Staff's noise data request asks for this information.

GEOLOGICAL, SOILS, AND WATER RESOURCES

The project is planning on injecting wastewater via a new deep-injection well, into a geologic formation approximately 5,000 feet below ground surface. A Class I Underground Injection Control (UIC) permit from US Environmental Protection Agency (USEPA) is required prior to drilling a full exploratory boring on-site to ensure that geologic conditions exist to support an underground injection well system. The permit application, which was submitted on September 15, 2006 to USEPA, can take up to 12 months for USEPA approval. Therefore, the permit may not be approved prior to issuance of the Final Staff Assessment (FSA).

The initial geological modeling analysis indicates that conditions beneath the site should support confined wastewater injection with no permeation into surrounding soils or groundwater, or collapse of the wall structures favorable for waste-water injection. However, until the exploratory boring is completed, staff will not be able to determine whether the underlying geologic formation and deep-injection well would actually be impermeable and physically stable.

In the event the proposed waste-water injection well is found to be unusable as intended because of the underlying geologic formation, the applicant intends to submit additional information to request drilling at another site or use an alternate wastewater disposal method. Staff prefers to have the project specific waste-water disposal method identified prior to the FSA and Decision. Staff will be issuing data requests regarding a range of alternatives for wastewater disposal to determine their viability and complete its analysis.

SCHEDULING

Timely resolution of the issues is critical to the schedule of this project. Staff's proposed 12-month schedule is below.

PROPOSED SCHEDULE

PANOCHE ENERGY CENTER PROJECT (06-AFC-5)

EVENT	DATE
Applicant files Application for Certification (AFC)	8/2/06
Executive Director's recommendation on data adequacy	11/6/06
Decision on data adequacy at the business meeting	11/8/06
Staff files Issue Identification Report	12/6/06
Staff files Data Requests	12/8/06
Information hearing and site visit	12/12/06
Applicant provides data responses	1/9/07
Data response and issue resolution workshop	1/17/07
Local, state and federal agency draft determinations & SJVAPCD PDOC	2/27/07
Preliminary Staff Assessment (PSA) filed	3/27/07
Staff Assessment workshop	4/10/07
Local, state and federal agency final determinations & SJVAPCD FDOC	4/13/07
Final Staff Assessment filed	4/30/07
Evidentiary hearings*	TBD
Committee files proposed decision*	TBD
Hearing on the proposed decision*	TBD
Committee files revised proposed decision*	TBD
Commission Decision	11/8/07

* The assigned Committee will determine this part of the schedule