

EXECUTIVE SUMMARY

Testimony of Craig Hoffman

INTRODUCTION

This Staff Assessment (SA) contains the California Energy Commission staff's independent evaluation of the Mariposa Energy Project (MEP) Application for Certification (09-AFC-3). The SA examines engineering, environmental, public health and safety aspects of the MEP project, based on the information provided by the applicant, Mariposa Energy, LLC and other sources available at the time the SA was prepared. The SA contains analyses similar to those normally contained in an Environmental Impact Report (EIR) required by the California Environmental Quality Act (CEQA). When issuing a license, the Energy Commission is the lead state agency under CEQA, and its process is functionally equivalent to the preparation of an EIR.

The Energy Commission staff has the responsibility to complete an independent assessment of the project's engineering design and its potential effects on the environment, the public's health and safety, and whether the project conforms with all applicable laws, ordinances, regulations and standards (LORS). The staff also recommends measures to mitigate potential significant adverse environmental effects and proposes conditions of certification for construction, operation and eventual closure of the project, if approved by the Energy Commission.

Staff has prepared a SA for the MEP as opposed to a Preliminary Staff Assessment. The SA presents for the committee, applicant, interveners, agencies, other interested parties, and members of the public, the staff's final analysis, conclusions, and recommendations except for biological resources and transmission system engineering where additional information and analysis is needed.

During the comment period that follows the publication of the SA, staff will conduct one or more workshops to discuss its findings, proposed mitigation, and proposed compliance monitoring requirements. Staff provides a comment period to resolve issues between the parties and to narrow the scope of disputed issues presented at evidentiary hearings. Based on the workshops and written comments, staff may refine its analysis, correct errors, and finalize conditions of certification to reflect areas where agreements have been reached with the parties and will then publish a Supplemental Staff Assessment (SSA). The SSA will be a limited document representing revisions and additions rather than a document including each technical section.

The SA and superseded sections within the SSA will serve as staff's formal testimony in evidentiary hearings to be held by the Committee of two Commissioners who are hearing this case. After evidentiary hearings, the Committee will consider the recommendations presented by staff, the applicant, all parties, government agencies, and the public prior to proposing its decision. The full Energy Commission will make the final decision, including findings, after the Committee's publication of its proposed decision.

PROJECT LOCATION AND DESCRIPTION

The Mariposa Energy Project (MEP) would be a natural gas-fired, simple cycle peaking facility with a generating capacity of 200-megawatts (MW). The proposed project site is in northeastern Alameda County, in an unincorporated area designated for Large Parcel Agriculture by the East County Area Plan. The facility would be located southeast of the intersection of Bruns Road and Kelso Road on a 10-acre portion of a 158-acre parcel (known as the Lee Property) immediately south of the Pacific Gas and Electric Company (PG&E) Bethany Compressor Station and 230-kilovolt (kV) Kelso Substation. The proposed power plant site is located in the southern portion of the Lee Property.

The site is located approximately 7 miles northwest of Tracy, 7 miles east of Livermore, 6 miles south of Byron, and approximately 2.5 miles west of the community of Mountain House in San Joaquin County. The existing, unrelated 6.5 MW Byron Power Cogen Plant occupies 2 acres of the 158-acre parcel northeast of the MEP site. The remainder of the parcel is non-irrigated grazing land.

Primary equipment for the generating facility would include four General Electric (GE) LM6000 PC-Sprint natural gas-fired combustion turbine generators (CTG) and associated equipment. Power would be transmitted to the grid at 230-kV through a new 0.7-mile long transmission line that would connect to the existing Kelso Substation. A new 580-foot long natural gas pipeline would connect the project site to PG&E's Line 2, which is an existing high-pressure natural gas pipeline located northeast of the project site. Service water would be provided from a new connection to the Byron Bethany Irrigation District (BBID) via a new pump station and 1.8-mile long pipeline. All domestic wastewater would be routed to an onsite septic system and either discharged to an onsite leach field or removed via truck for offsite disposal. Stormwater runoff would be detained onsite in an extended detention basin and released according to regulatory standards for stormwater quality control. Air emissions control systems would include a selective catalytic reduction (SCR) system for nitrogen oxides (NO_x) control using 19 percent aqueous ammonia and an oxidation catalyst for carbon monoxide (CO) control.

Temporary construction facilities would include a 9.2-acre worker parking and laydown area immediately east of the project site, a 1-acre water supply pipeline parking and laydown area located at the BBID headquarters facility, and a 0.6-acre laydown area along the transmission line route.

The MEP has a 20-year power purchase agreement with PG&E. If approved, project construction would begin in April 2011, with commercial operation commencing in July 2012.

AGENCY COORDINATION

The Energy Commission certification is in lieu of any permit required by state, regional, or local agencies, and federal agencies to the extent permitted by federal law (Pub. Resources Code, § 25500). However, the Commission seeks comments from and works closely with other regulatory agencies that administer LORS that may be applicable to proposed projects. These agencies may include as applicable the U.S.

Environmental Protection Agency, U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers, State Water Resources Control Board/Regional Water Quality Control Board, California Department of Fish and Game, and the California Air Resources Board. On July 2, 2009, Energy Commission staff sent the MEP AFC to all local, state, and federal agencies that might be affected by the proposed project. On September 28, 2009, staff followed up and sent the MEP Supplemental AFC to all local, state, and federal agencies that might be affected by the proposed project.

OUTREACH EFFORTS

Energy Commission regulations require staff to send notices regarding receipt of an AFC and Commission events and reports related to proposed projects, at a minimum, to property owners within 1,000 feet of a project and 500 feet of a linear facility (such as transmission lines, gas lines and water lines) and publish a notice in a local newspaper. The Energy Commission's outreach efforts are an ongoing process that, to date, has involved the following efforts; on July 2, 2009, a notice of receipt of MEP AFC was mailed out, and on September 28, 2009, a notice of receipt the MEP Supplemental AFC was mailed out. Notice of the October 1, 2009 Informational Hearing and Site Visit to the proposed site of the MEP was sent by letter. A site visit and status conference was held on October 6, 2010 with a status and scheduling conference. In addition to property owners and persons on the general project mail-out list, notification was provided to local, state and federal public interest and regulatory organizations with an expressed or anticipated interest in this project. Also, elected and certain appointed officials of Alameda and San Joaquin Counties were similarly notified of the hearing and site visit.

LIBRARIES

On July 2, 2009, the Energy Commission staff sent the MEP Application for Certification and on September 28, 2009 followed up with the MEP Supplement to the Application for Certification to various libraries within the project vicinity including; Mountain House Branch Library, Tracy Public Library, Livermore Public Library, San Joaquin County Library, Brentwood Library and Fremont Main Library. In addition, to these local libraries, copies of the AFC are also available at the Energy Commission's Library in Sacramento, the California State Library in Sacramento, as well as, public libraries in Eureka, Fresno, Los Angeles, San Diego, and San Francisco.

DATA RESPONSE AND ISSUE RESOLUTION WORKSHOP

Energy Commission staff sent a public notice to appropriate parties on November 30, 2009 for a December 15, 2009 Data Response Workshop and on June 17, 2010 for a June 30, 2010 Data Response Workshop. In addition to property owners and persons on the general project mail-out list, notification was provided to local, state and federal public interest and regulatory organizations with an expressed or anticipated interest in this project.

NOTIFICATION TO THE LOCAL NATIVE AMERICAN COMMUNITY

In addition to the July 2, 2009 and September 28, 2009 mail-outs which were sent to the Native American Heritage Commission, on April 19, 2010 the local Native American

community were sent letters advising them of the proposed project and provided them with contact information. In addition, their names have been added to the MEP project mail-out list so they will receive a copy of all Commission notices for events and reports related to this project.

PUBLIC ADVISER'S OFFICE

The Public Adviser helps the public participate in the Energy Commissions hearings and meetings. The Public Adviser assists the public by advising them how they can participate in the Energy Commission process; however, they do not represent members of the public.

ISSUES RAISED BY THE PUBLIC

At various workshops, the public have identified concerns that staff have incorporated into their analysis. Project concerns have included; air quality impacts to the Mountain House Community, impacts to the San Joaquin Air Basin from a project in the Bay Area Air Quality District, potential for bird attraction to the project thermal plumes, land use compatibility with Alameda County and Measure D, land use compatibility with the Byron Airport Master Plan, water supply concerns, safety concerns for pilots, impacts to air plane overflights and air space restrictions, air quality impacts to pilots, fire protection and worker safety concerns. These comments have been incorporated into the SA as necessary.

Any public comments on the SA will be incorporated into a subsequent SSA.

ENVIRONMENTAL JUSTICE

The steps recommended by the U.S. EPA's guidance documents to assure compliance with the Executive Order 12898 regarding environmental justice are: (1) outreach and involvement; (2) a screening-level analysis to determine the existence of a minority or low-income population; and (3) if warranted, a detailed examination of the distribution of impacts on segments of the population. Though the Federal Executive Order and guidance are not binding on the Energy Commission, staff finds these recommendations helpful for implementing this environmental justice analysis.

In considering environmental justice in energy facility siting cases, staff uses a demographic screening analysis to determine whether a low-income and/or minority population exists within the potentially affected area of the proposed site. The demographic screening is based on information contained in two documents: "Environmental Justice: Guidance Under the National Environmental Policy Act" (Council on Environmental Quality, December, 1997) and "Guidance for Incorporating Environmental Justice Concerns in EPA's Compliance Analyses" (U.S. Environmental Protection Agency, April, 1998).

The Environmental Justice screening process relies on Year 2000 U.S. Census data to determine the presence of minority and below-poverty level populations. Environmental Justice: Guidance Under the National Environmental Policy Act, defines minority individuals as members of the following groups: American Indian or Alaskan Native;

Asian or Pacific Islander; Black, not of Hispanic origin; or Hispanic. A minority population is identified when the minority population or the below-poverty-level population of the potentially affected area is:

1. greater than 50%; or
2. present in one or more US Census blocks where a minority population of greater than 50% exists.

In addition to the demographic screening analysis, staff follows the steps recommended by the U.S. EPA's guidance documents in regard to outreach and involvement; and if warranted, a detailed examination of the distribution of impacts on segments of the population.

Staff has followed each of the above steps for the following eleven (11) sections in the SA: **Air Quality, Hazardous Materials, Land Use, Noise, Public Health, Socioeconomics, Soils and Water Resources, Traffic and Transportation, Transmission Line Safety/Nuisance, Visual Resources, and Waste Management.** Over the course of the analysis for each of these eleven technical disciplines, staff considered potential impacts and mitigation measures, and whether there would be a significant impact on an environmental justice population. Staff determined that the remaining technical areas did not involve potential environmental impacts that could contribute to a disproportionate impact on an environmental justice population, and so did not necessitate further environmental justice analysis for those areas.

DETERMINING MINORITY POPULATION

Socioeconomics Figure 1 (located in the Socioeconomics section of this SA shows the minority population within the six-mile radius of the proposed MEP site. A minority population is identified when the minority population of the potentially affected area is greater than 50% or meaningfully greater than the percentage of the minority population in the general population or other appropriate unit of geographical analysis. For the MEP project, the 2000 U.S. Census total population within the six-mile radius of the proposed site is 2,164 persons, with a minority population of 706 persons, or about 33% of the total population.

DETERMINING BELOW-POVERTY-LEVEL POPULATION

Below-poverty-level populations are identified based on Year 2000 census block group data. Poverty status excludes institutionalized people, people in military quarters, people in college dormitories, and unrelated individuals under 15 years old. The below-poverty-level population within a six-mile radius of the MEP consists of approximately 14% of the total population in that area or approximately 277 people.

SIGNIFICANT IMPACTS

Staff has determined that in the above-mentioned sections of the SA, (Air Quality, Hazardous Materials, Land Use, Noise, Public Health, Socioeconomics, Soils and Water Resources, Traffic and Transportation, Transmission Line Safety/Nuisance,

Visual Resources, and Waste Management) there is a reasonable likelihood that significant impacts can be mitigated through the Conditions of Certification thereby ensuring that there would be no disproportionate or significant impact on an environmental justice population.

Staff has worked closely with the applicant and the residents of the area to identify local mitigation measures designed to reduce, to the greatest extent possible, any impact that will occur in the community surrounding the proposed project. Staff's environmental justice outreach has been incorporated into its overall outreach activity. This activity is summarized in the **INTRODUCTION** section to the SA, and in the subsection to this Executive Summary titled Public and Agency Coordination. In addition, the Public Adviser's Office has been involved in this project since the October 1, 2009 Informational Hearing and Site Visit and have helped to ensure that full and adequate participation by members of the public has occurred in this commission proceeding.

STAFF'S ASSESSMENT

Each technical area section of the SA contains a discussion of the project setting, impacts, and where appropriate, mitigation measures and proposed conditions of certification. The SA includes staff's preliminary assessment of:

- the environmental setting of the proposal;
- impacts on public health and safety, and measures proposed to mitigate these impacts;
- direct, indirect and cumulative environmental impacts, and measures proposed to mitigate these impacts;
- the engineering design of the proposed facility, and engineering measures proposed to ensure the project can be constructed and operated safely and reliably;
- project closure;
- project alternatives;
- compliance of the project with all applicable laws, ordinances, regulations and standards (LORS) during construction and operation;
- environmental justice for minority and low income populations;
- conclusions and recommendations; and,
- proposed conditions of certification.

SUMMARY OF PROJECT RELATED IMPACTS

With the exception of Biological Resources and Transmission System Engineering, as identified below, staff believes that as currently proposed, including the applicant's and the staff's proposed mitigation measures and the staff's proposed conditions of certification, the MEP would comply with all applicable laws, ordinances, regulations, and standards (LORS).

Biological Resources is currently undetermined with respect to mitigation of potential impacts and/or for conformance with applicable LORS. For a more detailed review of potential impacts and LORS conformance, see staff's technical analyses in the SA. The status of each technical area is summarized in the table below and the subsequent text.

Technical Area	Complies with LORS	Impacts Mitigated
Air Quality	Yes	Yes
Biological Resources	Undetermined	Undetermined
Cultural Resources	Yes	Yes
Efficiency	Not Applicable	Not Applicable
Facility Design	Yes	Yes
Geology & Paleontology	Yes	Yes
Hazardous Materials	Yes	Yes
Land Use	Yes	Yes
Noise and Vibration	Yes	Yes
Public Health	Yes	Yes
Reliability	Not Applicable	Not Applicable
Socioeconomic Resources	Yes	Yes
Soil & Water Resources	Yes	Yes
Traffic & Transportation	Yes	Yes
Transmission Line Safety/Nuisance	Yes	Yes
Transmission System Engineering	Undetermined	Yes
Visual Resources	Yes	Yes
Waste Management	Yes	Yes
Worker Safety and Fire Protection	Yes	Yes

SUPPLEMENTAL STAFF ASSESSMENT

Based on Staff Assessment workshops and written comments, staff may refine its analysis, correct errors, and finalize conditions of certification to reflect areas where agreements have been reached with the parties and will then publish a Supplemental Staff Assessment (SSA). The SSA will be a limited document representing revisions and additions rather than a document including each technical section.

Staff expects that the following information will need to be incorporated into the SSA.

Air Quality - a Final Determination of Compliance (FDOC) will be needed from the Bay Area Air Quality Management District and incorporated into staff analysis. It is not expected that the FDOC will change from the Preliminary Determination of Compliance. However if there are any modified requirements will be included in the SSA.

Biological Resources – Staff will continue to work with the applicant, CDFG, and USFWS to resolve any outstanding information needs. The following information is needed from the applicant so that staff is able to complete this analysis:

- Survey Results: The applicant needs to submit final burrowing owl surveys results, before staff can complete the impact analysis and mitigation requirements associated with this species.
- Adequate information provided to USFWS to complete formal consultation: The applicant needs to address comments provided by USFWS (September 29, 2010). These comments include the need for further details delineating permanent versus temporary impacts, more discussion of construction impacts and aquatic habitat impacts, and a complete compensation and mitigation plan.
- Consultation with the USFWS Migratory Bird Office (MBO): The applicant must consult with the USFWS MBO to determine whether project construction would affect nesting golden eagles, and, if this potential exists, appropriate measures to avoid this impact.
- Compensatory Mitigation: Details of a feasible compensation plan for the Mariposa Energy Project need to be finalized in coordination with the Energy Commission staff, CDFG, and USFWS.

The following information is pending from agency personnel:

- The Mariposa applicant has submitted a request to the U.S. Army Corps of Engineers (USACE) requesting a jurisdictional determination of Waters of the U.S. for several ephemeral streams and drainage areas that cross the proposed alignment of the project linears. The USACE has not yet responded with their determination. Staff will incorporate this determination into the Supplemental Staff Assessment if the USACE makes a determination after the SA has been published.
- Streambed Alteration Notification: The applicant submitted a draft Streambed Alteration Notification for the proposed project. The CDFG will be providing comments on this notification, which Energy Commission Staff will use to complete the impact analysis and mitigation requirements for state waters.
- Streamed Alteration Notification: If the alternative water supply pipeline route is selected, the applicant would need to prepare a draft Streambed Alteration Notification and submit the notification to the CDFG. Energy Commission staff would use CDFG's comments to complete analysis of impacts and mitigation requirements for the alternative water supply pipeline.

Modifications to the impact analysis, additional conditions of certification, and modifications to currently proposed conditions of certification are likely based on further consultation with agency personnel and information provided after publication of this SA. Without the information described above, staff is unable to conclude whether impacts from this project would be mitigated below a level of significance.

Transmission System Engineering and Transmission System Engineering - Appendix A - the Transition Cluster Phase 2 Interconnection Study Report for PG&E's Greater Bay Area was published July 30, 2010. Energy Commission staff have made comments and expects a modified study in late 2010. The SA Transmission Engineering Systems section and Transmission Engineering Systems Appendix A will

be modified in the Supplemental Staff Assessment to be consistent with the approved Phase 2 study.

The SSA will be completed once the above information is available and public comments have been incorporated into the document and workshops have been completed.

CONCLUSION AND SCHEDULE

For a more detailed review of potential impacts, see staff's technical analyses in the SA. Staff has listed the outstanding issues as applicable in the technical sections of the SA. To resolve these issues, staff requires either additional data, further discussion and analysis, or is awaiting conditions from a permitting agency prescribing mitigation.

Staff will work to resolve the outstanding issues and update the conclusions for the SSA; in addition, the SSA will also address all comments concerning the SA. Staff will conduct a public workshop on the SA on November 29, 2010. Staff anticipates publication of the SSA in December 2010.