

CALIFORNIA ENERGY COMMISSION

1516 NINTH STREET
SACRAMENTO, CA 95814-5512
www.energy.ca.gov



December 14, 2007

DOCKET 06-AFC-7	
DATE	DEC 14 2007
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Dear Librarian:

**DOCUMENT HANDLING FOR THE HUMBOLDT BAY REPOWERING PROJECT
(06-AFC-7)**

The enclosed Preliminary Staff Assessment (PSA) contains the California Energy Commission staff's initial engineering and environmental evaluation of the proposed Humboldt Bay Repowering Project. Please make this PSA available for those who may wish to be informed about the project. We request that you not allow the PSA or any of its contents to be removed from the library. To increase accessibility of the document, we ask, if possible, that you cross reference it as a general reference work under the title and author categories, as well as under such subjects as "Energy Commission," "electricity energy/generation," "power plant siting," or any other relevant subject. Please retain the enclosed letter to the public behind the front cover of the PSA.

The Energy Commission's siting process is open to the public and incorporates the input of the public as well as local, state and federal agencies. To facilitate public participation in our review process, the Energy Commission distributes copies of staff documents such as the PSA to public libraries in communities near the proposed project, and in major cities throughout the state.

Thank you for your cooperation. If you have any questions, please contact John Kessler, Project Manager, at (916) 654-4679, or by e-mail at: jkessler@energy.state.ca.us

Sincerely,

Eileen Allen
Siting and Compliance Office Manager

Enclosure

CALIFORNIA ENERGY COMMISSION

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December 14, 2007

To: MEMBERS OF THE PUBLIC**PUBLIC PARTICIPATION IN THE REVIEW OF HUMBOLDT BAY REPOWERING PROJECT PRELIMINARY STAFF ASSESSMENT (06-AFC-7)**

The enclosed Preliminary Staff Assessment (PSA) contains the California Energy Commission staff's initial engineering and environmental evaluation of Pacific Gas and Electric Company's (PG&E's) proposed Humboldt Bay Repowering Project (HBRP) Application for Certification (06-AFC-7). The PSA was published on November 29, 2007. The PSA contains the California Energy Commission staff's initial engineering and environmental evaluation of the HBRP, and staff's findings are summarized as follows:

- **Public Health** - Based on staff's preliminary health risk assessment, the HBRP could cause a significant cancer risk to public health and would not conform to related laws, ordinances, regulations, and standards (LORS). The potential health risk is associated with HBRP's proposed use of diesel fuel as a backup during natural gas curtailments. Natural gas with a diesel pilot would be the normal source of fuel for the dual-fueled reciprocating engine-generator units.
- **Air Quality** - Staff cannot conclude the project's impacts would be less than significant in Air Quality or that the project would conform with all applicable LORS in the area of Air Quality. Air Quality issues stem primarily from PG&E's goal to operate the HBRP during natural gas curtailments on diesel fuel. Energy Commission staff and North Coast Unified Air Quality Management District (NCUAQMD) both propose an upper limit for hours of operation using diesel fuel, which is needed to support evaluation of emission impacts and to establish necessary air emission offsets. In addition, PG&E and staff disagree on whether natural gas curtailments qualify as an emergency condition, which is a factor in determining allowable emission limits under the regulations.
- **Biology** - Staff is unable to make a final recommendation regarding the HBRP due to staff's pending review of Coastal Commission documents regarding compliance with the Coastal Act.
- **Land Use** -The potential public health risk also has the effect of causing land use non-conformity under Humboldt County's Humboldt Bay Area Plan as a cancer risk would not be compatible with adjacent land uses that are occupied by residences.

On September 29, 2006, PG&E submitted an Application for Certification (AFC) to construct and operate the Humboldt Bay Repowering Project (HBRP) near the City of Eureka, Humboldt County. The AFC seeks approval from the California Energy Commission to construct and operate a nominal 163 megawatt (MW) power plant consisting of ten (10) dual-fueled (natural gas with a diesel pilot or diesel) reciprocating

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engine-generator sets rated at 16.3 MW each. The HBRP would normally be fueled by natural gas with a diesel pilot, and would operate using California Air Resources Board (CARB)-certified diesel fuel when natural gas is curtailed or not available. This project is a replacement of the existing 105 MW Units 1 and 2 and the two 15 MW Mobile Emergency Power Plants (MEPP) at PG&E's Humboldt Bay Power Plant site.

The proposed HBRP site is located at 1000 King Salmon avenue, approximately three miles south of the city of Eureka, in an unincorporated area of Humboldt County. The project would be located on 5.4 acres within a 143-acre parcel currently occupied by PG&E's existing Humboldt Bay Power Plant

Air emissions from the proposed facility would be controlled using best available control technology applied to each engine's exhaust. Each system would consist of a selective catalytic reduction unit for oxides of nitrogen (NOx) control and an oxidation catalyst unit for carbon monoxide (CO) and volatile organic compounds (VOC) control. In order to be considered for licensing by the Energy Commission, the project would be required to conform with rules and regulations of the North Coast Unified Air Quality Management District (NCUAQMD) and be issued a Determination of Compliance from NCUAQMD.

The HBRP proposes using approximately 2,400 gallons of water per day (2.7 acre-feet/year) on average for cooling or other industrial purposes, which is a fraction of the water required for traditional combined-cycle turbine design. The generators would use an air radiator cooling system in a closed loop system (similar to automobiles). The HBRP would discharge industrial and sanitary wastewater into the Humboldt Community Services District (HCSD) sanitary sewer system at an average rate of about 860 gallons per day. Raw water for industrial processes and site landscape irrigation would be supplied from PG&E's existing ground water well via a direct connection to an onsite 6-inch-diameter water pipeline. Domestic water required for non-process uses (i.e., sinks, toilets, showers, drinking fountains, eye wash/safety showers, etc.) would be provided from a new 4- to 6-inch-diameter on-site pipeline running 1200 feet to a connection with the existing HCSD line that runs along King Salmon Avenue.

The project would be connected from the generators to the existing switchyard via two 60 kilovolt (kV) tie lines and one 115-kV tie line. No new transmission lines would be required. Natural gas would be supplied to the HBRP via an onsite 10-inch-diameter, high-pressure, natural gas pipeline owned and operated by PG&E.

PG&E seeks to begin construction of the project in fall 2008, followed by pre-operational testing of the power plant that would begin in summer or fall of 2009, and full commercial operation that would begin by fall of 2009 or winter of 2010.

The Energy Commission is responsible for reviewing and ultimately approving or denying all applications for construction and operation of thermal electric power plants, 50 MW and greater, proposed for construction in California. The Energy Commission's facility certification process carefully examines public health and safety, environmental impacts

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and engineering aspects of proposed power plants, and all related facilities such as electric transmission lines and natural gas and water pipelines. The Energy Commission is the lead agency under the California Environmental Quality Act (CEQA), and produces several environmental and decision documents rather than an Environmental Impact Report.

The Energy Commission conducted a publicly noticed workshop in Eureka to discuss the PSA on December 14, 2007. Based on the workshop, written comments received on the PSA, and additional information that will be gathered, the Energy Commission staff will revise the PSA and issue a Final Staff Assessment. The public and local, state and federal agencies are encouraged to participate. Written comments should be provided to John Kessler, Project Manager, by January 2, 2008, at 1516 Ninth Street, Sacramento, CA 95814-5512 or by email to jkessler@energy.state.ca.us.

If you desire information on participating in the Energy Commission's review of the project, please contact the Energy Commission Public Adviser's Office, at (916) 654-4489 toll free in California at (800) 822-6228, or by email at: pao@energy.state.ca.us. Technical or project schedule questions should be directed to John Kessler, Energy Commission Project Manager, at (916) 654-4679, or by email at: jkessler@energy.state.ca.us. If you need reasonable accommodation in terms of American Disabilities Act assistance or for language translation, please contact Lourdes Quiroz of the Administrative Services Division at (916) 654-5146, or e-mail Lourdes at lquiroz@energy.state.ca.us. The status of the project, copies of notices, and other relevant documents are also available on the Energy Commission's Internet web site at: <http://www.energy.ca.gov/sitingcases/humboldt>. News media inquiries should be directed to Assistant Director, Claudia Chandler, at (916) 654-4989, or by email at: mediaoffice@energy.state.ca.us.

Note: Please retain this letter behind the front cover of the PSA. Thank You.