

## CALIFORNIA ENERGY COMMISSION

16 NINTH STREET  
ACRAMENTO, CA 95814-5512**DOCKET**  
**07-SPPE-1**

DATE JUL 03 2007

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July 3, 2007

TO: AGENCY DISTRIBUTION LIST

**REQUEST FOR AGENCY PARTICIPATION IN THE REVIEW OF THE  
CHEVRON'S APPLICATION FOR A SMALL POWER PLANT EXEMPTION (07-SPPE-1)**

On June 22, 2007, Chevron filed an application for a Small Power Plant Exemption (SPPE). Chevron is seeking an exemption from the California Energy Commission's licensing requirements. If an exemption is granted, the applicant would need to secure the appropriate licenses and permits for the project from various local, state and federal agencies.

Chevron proposes to add an additional 60 megawatts (MW) net capacity to its existing electrical generation system within its Richmond Refinery in the City of Richmond, Contra Costa County, California, at 841 Chevron Way. The approximately 2,900-acre refinery occupies most of the Point San Pablo Peninsula with east and south boundaries near the residential communities of North Richmond and Point Richmond, respectively. The proposed Power Plant Replacement Project (PPRP) will be integrated into Chevron's plans to meet its growing refinery electrical load and produce steam to replace an existing boiler plant.

The PPRP will consist of (1) a replacement cogeneration train (Cogen 3000) to be located within the refinery's existing cogeneration facility, (2) a steam turbine generator (H2-STG) and an associated cooling tower to be located in a new hydrogen production facility within the refinery, (3) reconductoring to upgrade approximately 4,000 feet of existing double-circuit overhead 115-kV transmission line located between the existing cogeneration facility substation and the refinery's main switchyard, and (4) shutdown of the boilers located in the existing No. 1 Power Plant facility, which is currently providing steam to the refinery.

Cogen 3000 will be a nominal 43-megawatt (MW) net power output GE Frame 6B combustion turbine generator (CTG), which will have an inlet evaporative cooling system to maximize power output from the machine. The CTG exhaust will discharge through a heat recovery steam generator (HRSG) that will be equipped with refinery fuel gas-fired duct burners to provide steam production. The Cogen 3000 unit will be located on a previously developed site within the existing 5.2-acre cogeneration area of the Richmond Refinery. In addition to the additional generation capacity provided by Cogen 3000, the H2-STG will have a nominal 17 MW maximum net output.

The H2-STG will tie-in to the refinery's electrical system via a 2,000-foot onsite interconnection with the refinery's electrical distribution system to the main transmission substation, called the Standard Oil Switching Station (SOSS). The H2-STG will be installed as a physical part of the new hydrogen production plant to be built within the refinery by a third-party owner, Praxair. Cogen 3000 will connect to the electrical transmission system via existing dual-circuit 115-kilovolt (kV) lines that loop from the existing cogeneration facility

switchyard (Sub 5) to the SOSS. The SOSS is the point of common coupling with the Pacific Gas and Electric (PG&E) existing 115-kV El Sobrante transmission line.

The refinery proposes to burn natural gas, medium-Btu gas, or liquid petroleum gas in the CTG, and refinery fuel gas in the HRSG duct burner. Fuel for the facility will be delivered via existing pipelines.

For cooling tower makeup, the H2-STG will use up to 485 acre-feet per year (afy) of recycled water provided by the East Bay Municipal Utility District (EBMUD). Cooling water will be cycled in the H2-STG cooling tower approximately 3.5 times. The blowdown will be sent to the refinery wastewater treatment system.

The recycled water will be delivered to the H2-STG cooling tower from an existing recycled water pipeline. Additional in-plant water distribution piping will be added to route the recycled water to the new cooling tower. For Cogen 3000 cycle makeup water, evaporative cooling makeup, and other uses, the CTG will use approximately 863 afy of refinery-treated (RO plant) water. The refinery-treated water is supplied from EBMUD. This is the same water supply currently serving the existing steam boilers.

Potable water for drinking, safety showers, fire protection, and service water uses will be served from the existing EBMUD potable water system that currently serves the refinery. No additional sanitary wastewater disposal will be required for the PPRP.

### **ENERGY COMMISSION'S FACILITY EXEMPTION PROCESS**

The Energy Commission is responsible for reviewing, and ultimately approving or denying, all thermal electric power plants, 50 MW and greater, proposed for construction in California. The Energy Commission's SPPE process allows projects between 50 and 100 MW to proceed with local approval rather than requiring an Energy Commission license. An exemption from this licensing process is available if the Energy Commission finds that the project would not create a significant adverse impact on the environment or energy resources. The Energy Commission is the lead agency under the California Environmental Quality Act (CEQA) responsible for preparing an Initial Study. If warranted, the Commission will prepare a Mitigated Negative Declaration that examines public health and safety, and environmental impacts of the proposed project including all related facilities such as electric transmission lines, natural gas and water pipelines.

During the next few months, the Energy Commission will conduct a number of public workshops and hearings on the proposal to determine whether the exemption request should be approved and under what, if any, set of conditions. These workshops provide the public, as well as local, state and federal agencies, the opportunity to ask questions about, and provide input on, the proposed project. The Energy Commission will issue notices for these workshops and hearings, normally 14 days, but in no case later than 10 days, prior to each meeting.

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## **AGENCY PARTICIPATION**

Your participation in the proceeding is encouraged and would consist of identifying and working to resolve issues of concern to your agency. If the Energy Commission approves an exemption for the Chevron Power Plant Replacement Project, it would likely issue a Mitigated Negative Declaration. The applicant would then be responsible for obtaining all necessary local, state and federal permits required to construct and operate the project. If you have questions or would like additional information on how to participate in the Energy Commission's review of the project, please contact Mary Dyas, the Siting Project Manager.

We request that you provide any written comments you may have regarding potential issues of concern by August 2, 2007. Please provide your comments to Mary Dyas, Siting Project Manager, at (916) 651-8891, or by email to [mdyas@energy.state.ca.us](mailto:mdyas@energy.state.ca.us).

The status of the project, copies of notices and other relevant documents will be placed on the Energy Commission's web site at: <http://www.energy.ca.gov/sitingcases/chevron>.

Sincerely,

Handwritten signature of Roger E. Johnson in black ink.

ROGER E. JOHNSON, Manager  
Energy Facilities Siting & Compliance Office

Enclosure: Mailed to Chevron Power Plant Replacement Project Agency mailing list w/ CD.