

CALIFORNIA ENERGY COMMISSION

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



November 16, 2007

Dear Librarian:

DOCUMENT HANDLING FOR THE EASTSHORE ENERGY CENTER (06-AFC-6)

The enclosed Final Staff Assessment (FSA) contains the California Energy Commission staff's engineering and environmental evaluation of the Eastshore Energy Center. Please make this FSA available for those who may wish to be informed about the project. We request that you not allow the FSA 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 FSA.

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 Commission distributes copies of staff documents such as the FSA 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 Bill Pfanner, Project Manager, at (916) 654-4206, or by e-mail at: bpfanner@energy.state.ca.us

Sincerely,

A handwritten signature in black ink, appearing to read "Roger E. Johnson", written over a horizontal line.

Roger E. Johnson
Siting and Compliance Office Manager

Enclosure

DOCKET 06-AFC-6	
DATE	NOV 16 2007
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November 16, 2007

To: MEMBERS OF THE PUBLIC

**PUBLIC PARTICIPATION IN THE REVIEW OF EASTSHORE ENERGY CENTER
FINAL STAFF ASSESSMENT**

The enclosed Final Staff Assessment (FSA) contains the California Energy Commission staff's engineering and environmental evaluation of the Eastshore Energy Center (Eastshore).

The FSA finds that as currently proposed, including the applicant's and the staff's proposed mitigation measures and the staff's proposed conditions of certification, the Eastshore project will not comply with all applicable laws, ordinances, regulations, and standards (LORS), and that significant adverse direct and cumulative impacts have the potential to occur in the areas of Land Use and Traffic and Transportation as follows:

- Siting of the Eastshore project at the proposed location would interfere with and restrict existing and future operations of the Hayward Executive Airport. This is a significant adverse direct impact to Land Use.
- The project site's proximity to the traffic pattern for the Hayward Executive Airport and the downwind departure route for Runway 28L would unreasonably complicate aircraft maneuverability. It would also limit the airspace available for aircraft transit, maintenance flights, training procedures, and normal departures/arrivals that currently occur relatively unimpeded within this portion of the Hayward airport airspace. This would be a significant adverse impact to Traffic and Transportation that could not be avoided if the project were developed at the proposed location.
- The cumulative effect of the Eastshore and nearby Russell City Energy Center (RCEC) projects on Hayward airport airspace increases the potential for serious impairment to the utility of the airport by increasing the complexity of the airspace. Potential mitigation such as pilots seeing and avoiding both power plants is impractical and in some cases unattainable. The FAA notes that the potential for constraints to airport operations creates a tangible impact on the future use of the Hayward Executive Airport if the facility is approved at the proposed site. Energy Commission staff concludes that the project's incremental effect, in conjunction with the operation of the RCEC project, is cumulatively considerable.

The proposed Eastshore site is a 6.22-acre parcel located at 25101 Clawiter Road in the city of Hayward, Alameda County, in an area zoned for industrial use. A large industrial building and paved asphalt parking facility currently occupy the parcel. A commercial office complex and parking lot are located to the immediate south of the proposed Eastshore site, and existing light-to-medium-industrial facilities are located to the west and east. The Union Pacific Railroad corridor forms the northeast corner of the parcel, and Clawiter Road borders it on the east. A 4.65 acre area owned by Berkeley Farms, located across Clawiter Road, will be leased to Eastshore Energy for temporary construction and laydown during the construction and commissioning periods.

On September 22, 2006, Eastshore Energy, LLC (owner) filed an Application for Certification (AFC) for the Eastshore Energy Center (Eastshore). The AFC seeks approval from the California Energy Commission to construct and operate a nominal 115.5 megawatt (MW) power plant consisting of 14 Wartsila 20V34SG natural gas-fired reciprocating engine-generator units each rated at 8.4 MW. Eastshore proposes to operate up to 4,000 hours annually, equivalent to an annual capacity factor of 45.7 percent. Eastshore is designed as a 115.5 MW nominal capacity intermediate/peaking load facility which has been proposed to serve electricity needs of the cities of Hayward, Fremont, and San Leandro in the southern East Bay area and also the City of San Mateo in the San Francisco Peninsula due to its unique location and the existing transmission network. Under certain conditions the Eastshore project could be the only major generator providing electricity to the Hayward area. As described in the AFC, Eastshore's quick start capability is designed to respond to unexpected changes in regional demands from higher-than-expected summer temperatures, other facilities tripping off line, or sudden changes in renewable power generation.

Each generator set will be equipped with standard support auxiliaries – for example, a fuel gas system, lube oil system, charge air systems, and an engine cooling system. Supporting the overall plant are a start air system, an instrument/service air system, two 60 percent redundant main step-up transformers, two 100 percent redundant auxiliary/station service transformers, clean and dirty lube oil storage tanks, a raw water tank, a waste water holding tank, and two 19 percent (by weight) aqueous ammonia tanks, along with associated support equipment.

Air emissions from each generator set will be treated by a selective catalytic reduction (SCR) system (one per engine) for reduction of oxides of nitrogen (NO_x) emissions, and an oxidation catalyst for reduction of carbon monoxide (CO) and precursor organic compound (POC) emissions.

Eastshore would be connected to PG&E's electrical system at the utility's existing Eastshore substation, which is located approximately 1.1 miles south of the proposed Eastshore site. This connection will require a new overhead single circuit 115-kV line that will run near an existing PG&E 12-kV distribution right-of-way. The connection may also require widening the existing right-of-way and replacing 10 to 12 transmission poles with structures designed to accommodate both the 12-kV and 115-kV transmission lines.

Natural gas would be supplied to the proposed Eastshore project via a 200-foot pipeline connection to PG&E's Pipeline 153, which is on the opposite side of Clawiter Road from the proposed project. PG&E will interconnect the proposed Eastshore site by installing a 4.5-inch diameter pipeline via an underground bore originating at the proposed Eastshore site, boring under Clawiter Road and the existing Union Pacific Railroad right-of-way, and connecting to PG&E's existing gas line.

Eastshore would use approximately 1.6 acre-feet of potable water per year for engine cooling, other power plant processes, site landscape irrigation, and potable and sanitary uses. A closed-loop engine cooling system would both reduce the requirement for water and result in the consumption of approximately one gallon per minute during plant operation. The city of Hayward would supply potable water for the proposed Eastshore project through an existing connection immediately adjacent to the proposed site, under a contract with the city of San Francisco's Public Utilities Commission.

Sanitary wastewater would be discharged to Hayward's city sewer system via an existing on-site sewer connection. Process wastewater would be tested for potential contamination, and, under normal conditions, would also be discharged to the sanitary sewer line. If the wastewater composition is determined to exceed allowable discharge limits, it would be transported off site for treatment and disposal.

The Eastshore project will include fourteen (14) stacks, each approximately 70 feet tall, four feet in diameter at the top and eight feet in diameter at the base. The stacks would be constructed in two clusters of seven stacks each, extending a total of approximately 425 feet in a linear array. Each stack would produce a high velocity thermal plume, with the potential for each seven-stack array to merge into a single plume. The project also includes two radiator exhausts, approximately 20 feet in height. These also produce individual high velocity thermal plumes, but the plumes would not merge.

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 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 committee overseeing this proceeding will conduct a publicly noticed Prehearing Conference on November 26, 2007, and Evidentiary Hearings on December 17th and 18th 2007, on the FSA at the Hayward City Hall. These hearings have been separately noticed.

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 Bill Pfanner, Energy Commission Project Manager, at (916) 654-4206, or by email at: bpfanner@energy.state.ca.us. If you need reasonable accommodation in terms of assistance, 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, the FSA and other relevant documents are also available on the Energy Commission's Internet web site at: <http://www.energy.ca.gov/sitingcases/eastshore>. 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 FSA. Thank You.