

## CALIFORNIA ENERGY COMMISSION

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



September 17, 2007

<b>DOCKET</b>	
<b>07-AFC-6</b>	
<b>DATE</b>	SEP 17 2007
<b>RECD.</b>	SEP 18 2007

Dear Librarian:

**DOCUMENT HANDLING FOR THE CARLSBAD ENERGY CENTER PROJECT,  
APPLICATION FOR CERTIFICATION (07-AFC-6)**

On September 14, 2007, Carlsbad Energy Center, LLC, (the Applicant) submitted an Application for Certification (AFC) for the Carlsbad Energy Center Project (Carlsbad EC) to the California Energy Commission to develop a thermal power plant at the Encina Power Station in the city of Carlsbad, California.

The Carlsbad EC power plant project is under the Energy Commission's siting authority. The power plant certification process examines engineering, environmental, public health, and safety aspects of power plant proposals and provides analyses pursuant to the California Environmental Quality Act (CEQA). When issuing a certificate, the Energy Commission is the lead state agency under CEQA, and its process is functionally equivalent to the preparation of an Environmental Impact Report.

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 has sent copies of the AFC to libraries in the project area, and to libraries in Los Angeles, Sacramento, San Francisco, San Diego, Fresno, and Eureka.

Please make the enclosed AFC available for those who may wish to be informed about the project. We request that you not allow the AFC or any of its contents 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.

Thank you for your cooperation. If you have any questions, please contact James W. Reede, Jr., Energy Commission Project Manager, at (916) 653-1245, or by email at [jreede@energy.state.ca.us](mailto:jreede@energy.state.ca.us).

Sincerely,

A handwritten signature in black ink, appearing to read "Roger E. Johnson".

Roger E. Johnson, Manager  
Energy Facilities Siting and Compliance Office

Enclosure

**CALIFORNIA ENERGY COMMISSION**1516 NINTH STREET  
SACRAMENTO, CA 95814-5112

September 17, 2007

**To: MEMBERS OF THE PUBLIC****PUBLIC PARTICIPATION IN THE REVIEW OF THE CARLSBAD ENERGY CENTER PROJECT, APPLICATION FOR CERTIFICATION (07-AFC-6)**

On September 14, 2007, Carlsbad Energy Center, LLC, (the Applicant) submitted an Application for Certification (AFC) for the Carlsbad Energy Center Project (Carlsbad EC) to the California Energy Commission to develop a thermal power plant at the Encina Power Station in the city of Carlsbad, California.

**Project Description**

The proposed project would be a 558 megawatt (MW) gross combined-cycle generating facility configured using two Siemens SCC6-5000F, natural gas-fired combustion turbine generators (CTG), two heat recovery steam generators (HRSG), and two steam turbine generators (STG). The Carlsbad EC units would connect to the electrical transmission system via 138 kilovolt (kV) and 230 kV lines that connect to the nearby SDG&E switchyards at the existing Encina Power Station.

Associated equipment would include emission control systems necessary to meet the applicant's proposed emission limits. Nitrogen oxide (NO<sub>x</sub>) emissions would be controlled at the power plant's stack by a combination of Ultra Low NO<sub>x</sub> combustors in the CTGs and selective catalytic reduction systems in the HRSGs using aqueous ammonia. An oxidation catalyst would be installed to limit stack carbon monoxide (CO) emissions.

The Carlsbad EC site is located in the city of Carlsbad, in San Diego County in an area zoned Public Utility (PU) which specifically allows electrical generation and transmission facilities. The total land acreage of the existing Encina Power Station is approximately 95 acres. The Encina Power Station consists of an approximately 65 acre parcel containing the existing generating equipment (Assessor Parcel Number [APN] 210-01-43) and an approximately 30 acre parcel west of the railroad tracks containing the fuel tanks that are being removed and upon which Carlsbad EC would be constructed (APN 210-01-41).

The operation of the Carlsbad EC would use both Title 22 reclaimed water and potable water supplied by the city of Carlsbad. The Carlsbad EC would use an average of approximately 112 acre-feet of reclaimed water per year, with a maximum peak reclaimed water use of 517 acre-feet per year. The reclaimed water would be delivered to Carlsbad EC by the city of Carlsbad through a reclaimed water pipeline, approximately 3,600 feet long, from a connection point to the existing reclaimed water pipeline system at Cannon Road and Avenida Encinas. Approximately 1,000 feet of this line would be in publicly dedicated or publicly used property. Steam cycle makeup water for Carlsbad EC would be provided by treating reclaimed water using reverse osmosis and mixed bed ion-exchange technology. Up to approximately 5 acre-feet per year of reclaimed water would be used to irrigate site landscaping annually.

Potable water for drinking, eye protection, safety showers, fire protection and service water would be served from the city's existing potable water system. Sanitary/industrial wastewater disposal would be to the city of Carlsbad (Encina Wastewater Authority) sanitary sewer system. A new 12-inch, 1,100 foot sanitary sewer line would connect the Carlsbad EC site to an existing Encina Wastewater Authority sewer line located within an existing right-of-way on the Encina Power Station site adjacent to the west side of the Carlsbad EC site.

The two CTGs and STGs would be interconnected to the regional electrical grid through new 138 kV/230 kV transmission connection lines that would exit the Carlsbad EC site to the west and be routed to the respective existing SDG&E switchyards. No offsite electrical transmission lines would be required.

The CTGs would be designed to burn natural gas only. Natural gas would be delivered to the Carlsbad EC site via an 18-inch-diameter pipeline from an existing Southern California Gas high-pressure natural gas pipeline located on the Encina Power Station. This pipeline would extend from the existing Southern California Gas natural gas pipeline which runs adjacent to the Carlsbad EC site, on the west side parallel to the rail line. At the Carlsbad EC site, the natural gas would flow through a flow-metering station, gas scrubber/filtering equipment, a gas pressure control station, and electric-driven booster compressors prior to entering the CTGs. Two 100-percent capacity electric-driven fuel gas compressors would be provided to boost the pressure to that required by the CTGs. The gas compressors would be located outdoors.

The applicant expects to receive a license from the Energy Commission by September 2008, with construction of the project starting in late October 2008 assuming completion of project financing. The applicant has proposed two construction scenarios. In the Single Phase Project Schedule scenario, Unit 1 commercial operation would begin during May 2010, with Unit 2 commencing commercial operation June 2010. In the Phased Construction Schedule scenario Unit 1 commercial operation would begin during July 2010, with Unit 2 commercial operation beginning January 2011. Electric power generated at the Carlsbad EC facility would be sold to a southern California load-serving entity under a long term power purchase agreement.

### **Energy Commission's Facility Certification 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 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, water, sewer, and natural gas pipelines. The Energy Commission's responsibilities are those of a lead agency under the California Environmental Quality Act, except the Energy Commission's analysis takes the form of several environmental and decision documents rather than an Environmental Impact Report.

### **Public Participation**

Over the coming months, the Energy Commission will conduct a number of public workshops and hearings on the proposal to determine whether the project should be approved for construction and operation and under what set of conditions. These workshops will 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

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hearings at least 10 days prior to the meeting. If you are not currently receiving these notices and want to be placed on the mailing list, please contact Angela Hockaday, Project Secretary, at (916) 654-3925, or by e-mail at [ahockada@energy.state.ca.us](mailto:ahockada@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 Office, at (916) 654-4489 or toll free in California, at (800) 822-6228. Technical or project schedule questions should be directed to James W. Reede, Jr., Ed.D, Energy Commission Project Manager, at (916) 653-1245, or by email at [jreede@energy.state.ca.us](mailto:jreede@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 [www.energy.ca.gov/sitingcases/carlsbad](http://www.energy.ca.gov/sitingcases/carlsbad).

You can also receive email notification of all project related activities and availability of reports by subscribing to the Listserve on the website. News media inquiries should be directed to Assistant Director, Claudia Chandler, at (916) 654-4989 or by email to [mediaoffice@energy.state.ca.us](mailto:mediaoffice@energy.state.ca.us).

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