

## DOCKETED

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<b>Project Title:</b>	Puente Power Project
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<b>Document Title:</b>	Request for California Independent System Operator
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**CALIFORNIA ENERGY COMMISSION**

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



May 11, 2015

Mr. Dennis Peters  
CA Independent System Operator  
P.O. Box 639014  
Folsom, CA 95763-9014

Dear Mr. Peters:

**REQUEST FOR CALIFORNIA INDEPENDENT SYSTEM OPERATOR (CAISO)  
PARTICIPATION IN THE REVIEW OF THE PUENTE POWER PROJECT (15-AFC-01)  
APPLICATION FOR CERTIFICATION**

On April 15, 2015, NRG Oxnard Energy Center, LLC, submitted an Application for Certification (AFC) to construct and operate the Puente Power Project (P3), a nominal 262-megawatt (MW), natural gas-fired, simple-cycle generating unit that would be sited on 3 acres of previously disturbed vacant land located on the northern portion of the existing 36-acre Mandalay Generating Station (MGS) at 393 North Harbor Boulevard in Oxnard, Ventura County.

**Project Description**

The proposed P3 would replace approximately 430 MW supplied by two aging gas-fired steam-generating units (Units 1 and 2) that would be retired at the existing MGS, with a new General Electric (GE) Frame 7HA.01, natural gas-fired combustion turbine generator (CTG) and associated auxiliaries. The existing MGS Unit 1 and 2 power blocks and buildings would remain, and P3 would upgrade and repurpose an existing maintenance building, warehouse, transmission interconnections, and ancillary systems to the extent feasible. Construction laydown and parking areas would be within the existing MGS site. No offsite linear developments are currently proposed as part of the project. If P3 is approved and developed, MGS Units 1 and 2 would be retired at the completion of commissioning of P3.

P3 would provide peaking power to serve electric demand in Southern California and is expected to operate up to a 30-percent capacity factor. Peak load operation would most likely occur during summer on-peak hours. The P3 design provides for a wide range of operating flexibility (i.e., an ability to start up quickly and operate efficiently during operating modes).

The new generating unit would tie into the existing adjacent switchyard owned by Southern California Edison, using one of the breaker positions that would be vacated when one of the existing units is removed from service during the commissioning of P3.

An ultra-dry low-nitrogen oxide (NO<sub>x</sub>) combustor system would be used to control the NO<sub>x</sub> concentration exiting the CTG. As an additional post-combustion NO<sub>x</sub> control system, selective catalytic reduction (SCR) would be installed downstream of the gas turbine. The SCR system would inject an aqueous ammonia solution into the exhaust gas stream upstream of a catalyst bed to reduce the NO<sub>x</sub> to inert nitrogen and water. An oxidation

Mr. Dennis Peters  
CAISO  
May 11, 2015

catalyst system would also be incorporated into the air quality control system to control emissions of carbon monoxide (CO) and volatile organic compounds (VOCs).

P3 would use natural gas supplied by Southern California Gas Company (SoCal Gas) and connect to a new gas metering station adjacent to the P3 site. A new natural gas pipeline of approximately 500 feet would extend from the new gas metering station through a new gas compressor to the CTG interface.

The project would use dry cooling technology, which eliminates the large water supply required by once-through seawater cooling. Total estimated annual water use for P3's process and service water needs is expected to be approximately 16 acre-feet per year (AFY), most of which is used for the inlet air evaporative coolers that are used for power augmentation. Estimated annual domestic water use is expected to be the same as for MGS, or approximately 3 AFY. The process water and potable water source is proposed to be the city of Oxnard; the point of connection would be to the existing MGS potable water supply.

Sanitary wastewater would be discharged to the MGS existing septic system. Process wastewater would be stored in one of the existing MGS retention basins, and ultimately discharged to the ocean via the existing outfall. Stormwater also would be directed to one of the existing MGS retention basins, where the water would be reused onsite for industrial purposes (i.e., evaporative cooling for the P3 unit) and/or irrigation purposes to the extent feasible and practical. Surplus stormwater would be discharged to the ocean via the existing outfall. Discharge flows would substantially decrease as compared to existing operating conditions for MGS Units 1 and 2 due to decreased plant water use for P3.

The project would integrate Leadership in Energy and Environmental Design (LEED) concepts. P3 would reuse existing MGS facilities, thereby reducing construction waste. A portion of the existing MGS warehouse would be reconfigured to add a control room for the new plant. The existing administration building would be upgraded. Based on the preliminary concepts identified, the project could receive a LEED Certified rating for the new control room and a LEED Silver rating for the improvements to the administration building.

Construction of P3 is expected to occur over a 21-month period (from October 2018 through June 2020). Commercial operation of P3 is expected by June 2020.

## **ENERGY COMMISSION'S SITE CERTIFICATION PROCESS**

The Energy Commission is responsible for reviewing and ultimately approving or denying all applications to construct and operate thermal power plants, 50 MW and greater, in California. As part of the review process, the staff of the Energy Commission endeavors to work closely with local, state, and federal agencies to ensure that all laws, ordinances, regulations and standards are considered in the final decision of the Energy Commission.



Mr. Dennis Peters  
CAISO  
May 11, 2015

### Agency Participation

Once the AFC is deemed data adequate, CAISO's participation in the proceeding will ensure that the Energy Commission has the information needed in order to make a decision and will allow you to identify and try to resolve issues of concern to your organization. Accordingly, as required in the California Code of Regulations, title 20, section 1714 (b), the Energy Commission requests CAISO's analyses, comments, and recommendations on project impacts to system reliability. As a result, we request that you inform the executive director of your intent to participate and when such comments can be filed with the Energy Commission. Unless otherwise specified by law or by order of the presiding member, all such comments need to be filed prior to the conclusion of the evidentiary hearings. Please let us know if you need additional information or need to perform analyses or studies in order to resolve any concerns of CAISO. (See Cal. Code Regs., tit. 20, section 1714.5.) You may be asked to present and explain your conclusions at public and evidentiary hearings on the project (See Cal. Code Regs., tit. 20, section 1748). A complete copy of the Energy Commission's Siting Regulations can be obtained at the following link:

<http://www.energy.ca.gov/2012publications/CEC-140-2012-002/CEC-140-2012-002.pdf>.

Enclosed is a copy of the AFC in electronic format (CD). If you would like to have a hard copy of the AFC sent to you, if you have questions, or if you would like to participate in the Energy Commission's review of the proposed project, please contact Jon Hilliard, Energy Commission Project Manager, at (916) 654-3936, or by email at [jon.hilliard@energy.ca.gov](mailto:jon.hilliard@energy.ca.gov). The status of the proposed project, copies of notices, a copy of the AFC, and other relevant documents are also available on the Energy Commission's web site at <http://www.energy.ca.gov/sitingcases/puente/>.

You can also receive email notification of all project related activities and availability of reports by subscribing to the project list serve at <http://www.energy.ca.gov/listservers/index.html>.

Sincerely,



Chris Davis  
Siting Office Manager

(1): Puente Power Project 15-AFC-01 (CD)