# DOCKETED

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



# NOTICE OF RECEIPT OF AN APPLICATION FOR CERTIFICATION FOR THE PUENTE POWER PROJECT (15-AFC-01)

On April 15, 2015, NRG Oxnard Energy Center, LLC, submitted an Application for Certification (AFC) to construct, own and operate the Puente Power Project (P3). P3 would be sited on approximately 3 acres of previously disturbed vacant brownfield land located on the northern portion of the existing 36-acre Mandalay Generating Station (MGS) site at 393 North Harbor Boulevard in Oxnard, Ventura County, California.

#### **PROJECT DESCRIPTION**

The proposed Puente Power Project (P3 or project) would replace two aging gas-fired steam-generating units (Units 1 and 2) at the existing MGS, with a new General Electric (GE) Frame 7HA.01natural gas-fired, combustion turbine generator (CTG) and associated auxiliaries. Construction laydown and parking areas would be within the existing MGS site. P3 would upgrade and repurpose existing maintenance, warehouse, and transmission interconnections, and ancillary systems to the extent feasible. 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 by the completion of commissioning of P3.

The generator output from P3 would be stepped-up to 220 kilovolts (kV) from the GE 7HA.01 CTG operating in simple-cycle mode. The power block would provide peaking power and is expected to operate up to approximately 30-percent capacity factor. Full-load output of the unit under expected operating and ambient (temperature/relative humidity) conditions would range from approximately 241 net megawatts (MW) to a peak of 271 net MW. The new generating unit would tie into the existing adjacent switchyard, owned by Southern California Edison, using one of the MGS Units 1 and 2 breaker positions that would be vacated when one of the units is phased out of service during the commissioning of P3.

Power produced by P3 would serve electric demand in Southern California. Peak load operation would most likely occur during summer on-peak hours, and minimum load operation during off-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).

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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. Dilution air fans would temper flue gas temperatures to meet SCR catalyst temperature requirements. An oxidation 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 (SoCalGas) and would 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 combustion turbine interface.

The project would use dry cooling technology, which eliminates the once-through cooling system that cools MGS units 1 and 2 with ocean water that must be phased out by 2020 to comply with the facility Implementation Plan for State Water Resources Control Board Resolution 2010-0020. Dry cooling also greatly reduces the large water supply required by wet-cooled power generation projects. Total estimated annual water use for P3's process and service water needs is expected to be approximately 16 acrefeet 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 an 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.

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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. 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). Because the siting process is a Certified Regulatory program, the Energy Commission produces several environmental and decision documents rather than an Environmental Impact Report. The issuance of a certificate by the Energy Commission is in lieu of any local or state permit, and federal permit to the extent permitted by federal law.

The first step in the review process is for Energy Commission staff to determine whether the AFC contains all the information required by Title 20, California Code of Regulations, Appendix B. When the AFC is deemed data adequate, Energy Commission staff will begin the discovery and issue analysis phases. At that time, a detailed examination of the issues will occur.

Under its certified regulatory program, the Energy Commission prepares and publishes both a Preliminary Staff Assessment (PSA) and a Final Staff Assessment (FSA). After allowing for a public comment period on the PSA and holding public workshops, staff will prepare and publish the FSA which will serve as staff's formal testimony in evidentiary hearings to be held by the Energy Commission Committee assigned to hear this case. The Committee will hold evidentiary hearings and will consider the recommendations presented by staff, applicant, intervenors, government agencies, and the public, prior to proposing its decision. In the last step, the full Energy Commission will issue the final decision.

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.

### **PUBLIC PARTICIPATION**

Over the coming months, the Energy Commission will conduct public workshops and hearings to determine whether the proposed project should be approved for construction and operation and under what set of conditions. These workshops and hearings 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 hearings at least 10 days prior to each meeting.

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This notice of receipt has been mailed to property owners located within 1000 feet of the proposed project site and 500 feet of a project linear feature (e.g. pipeline) and a link to it emailed to all parties who have signed up for the Energy Commission Listserv. By being on the Listserv, you will receive notices of all project-related activities and notices when documents related to the proposed project's evaluation are available for review. You can sign up on the project Listserv at <u>www.energy.ca.gov/listservers/</u>. If you want your name removed from the mailing list, please contact Alexis Surita, Project Assistant, at (916) 651-9106, or by e-mail at <u>alexis.surita@energy.ca.gov</u>.

You can find the AFC and other information about the project and proceedings on the project website: <u>http://www.energy.ca.gov/sitingcases/puente/</u>. Please direct your technical or project schedule questions to Jon Hilliard, Project Manager at (916) 654-3936, or by e-mail at jon.hilliard@energy.ca.gov.

Agencies and members of the public who wish to provide written comments on the project are asked to submit comments to the Energy Commission Dockets Unit. Please include the docket number, 15-AFC-01, in the subject line or first paragraph of your comments. Those submitting comments electronically should provide them in either Microsoft Word format or Portable Document Format (PDF) to <u>docket@energy.ca.gov</u>. Please include your name or organization's name in the subject line. Those preparing non-electronic written comments should mail or hand deliver them to:

California Energy Commission Dockets Unit, MS-4 Docket No. 15.AFC-01 1516 Ninth Street Sacramento, CA 95814-5512

All written comments and materials filed with the Dockets Unit will become part of the public record of the proceeding. Additionally, comments may be posted on the website. If you desire information on participating in the Energy Commission's review of the project, please contact the Energy Commission's Public Adviser, Alana Mathews, at (916) 654-4489 or toll free in California, at (800) 822-6228. The Public Adviser's Office can also be contacted via email at <u>publicadviser@energy.ca.gov</u>.

## AVAILABILITY OF THE AFC DOCUMENT

Copies of the AFC are available on the project website: <u>http://www.energy.ca.gov/sitingcases/puente/</u> and for public inspection at the following public libraries:

Oxnard Public Library	Oxnard Public Library
Downtown Main Library	Colonia Branch
251 South 'A' Street	1500 Camino del Sol #26
Oxnard, CA 93030	Oxnard, CA 93030
Oxnard Public Library	
South Oxnard Branch Library	
4300 Saviers Road	
Oxnard, CA 93033	

Copies are also available at the Energy Commission's Library in Sacramento, the California State Library in Sacramento, and at California public libraries in Eureka, Fresno, San Francisco, Los Angeles, and San Diego. In addition, copies will be distributed to those public agencies that would normally have jurisdiction except for the Energy Commission's exclusive authority to certify sites and related facilities.

Sincerely,

Date: April 24, 2015

Originally Signed By Chris Davis, Siting Office Manager

Mailed to: Property Owner List 7507