

DOCKETED

Docket Number:	15-AFC-01
Project Title:	Puente Power Project
TN #:	205664
Document Title:	Issues ID Report for Puente Power Project
Description:	Staff's Issues ID Report
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Organization:	California Energy Commission
Submitter Role:	Public Agency
Submission Date:	8/10/2015 10:27:36 AM
Docketed Date:	8/10/2015

Memorandum

Date: August 10, 2015

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To: Commissioner Janea Scott, Presiding Member
Commissioner Karen Douglas, Associate Member
Hearing Officer, Raoul Renaud

From: **California Energy Commission** – Jon Hilliard, Project Manager
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Subject: **PUENTE POWER PROJECT (15-AFC-01) ISSUES IDENTIFICATION REPORT**

Attached is staff's Issues Identification Report for the Puente Power Project (P3) Application for Certification (15-AFC-01). This report is a preliminary scoping document that identifies the issues that the California Energy Commission staff believes will require careful attention and consideration, or could cause delay in processing the application. This report also provides a proposed schedule pursuant to the 12-month Application for Certification process. Energy Commission staff will present the Issues Identification Report at the Informational Hearing and Site Visit to be held on August 27, 2015.

cc: Docket (15-AFC-01)
Proof of Service List

Attachment: (1) Issues Identification Report

PUENTE POWER PROJECT
(15-AFC-01)

ISSUES IDENTIFICATION REPORT
August 10, 2015

CALIFORNIA ENERGY COMMISSION
Siting, Transmission and Environmental Protection Division

ISSUES IDENTIFICATION REPORT PUENTE POWER PROJECT (15-AFC-01)

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ISSUES IDENTIFICATION REPORT

This report has been prepared by the California Energy Commission staff to inform the Puente Power Project (P3) Committee and all interested parties of the potential issues that have been identified in the review of the Application for Certification (AFC) thus far. These issues have been identified during staff’s review of the P3 AFC (15-AFC-01), the Application for Authority to Construct to the Ventura County Air Pollution Control District (Application No. 00013-370), and as a result of discussions with federal, state, and local agencies. The Issues Identification Report contains a project description, summary of potentially significant environmental issues, and a discussion of the proposed project schedule. Staff will continue to address these issues and inform the Committee about progress made towards their resolution by submitting status reports in the time and manner ordered by the Committee.

PROJECT DESCRIPTION

Project Location & Site Description

P3 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, A.P.N. 183-0-022-025. The site is bordered by sand dunes and the Pacific Ocean to the west, McGrath Lake State Park and land owned by SunCal to the north, industrial uses to the north, south, and east, and agricultural uses farther to the east. The closest existing residential neighborhood is the Oxnard Shores Mobile Home Park, approximately 0.75 mile (or approximately 3,900 feet) south from the proposed P3 stack, south of W. 5th Street and west of Harbor Boulevard. The North Shore at Mandalay Bay is a proposed residential development scheduled to commence construction in 2016. The distance from the proposed P3 stack to the closest North Shore at Mandalay Bay development boundary is approximately 0.47 mile, or approximately 2,460 feet.

Project Description

The project applicant, NRG Energy Center Oxnard, LLC, an indirect, wholly owned subsidiary of NRG Energy, Inc. (applicant), proposes to replace two aging gas-fired steam-generating units (Units 1 and 2) at the existing MGS with a new General Electric (GE) Frame 7HA.01 single-fuel combustion turbine generator (CTG) and associated auxiliaries. P3 is proposed on approximately 3 acres of previously disturbed vacant land within the existing boundaries of MGS, including all temporary construction laydown and parking areas. To minimize environmental impacts associated with the construction of new operations, existing MGS maintenance, warehouse, transmission interconnections, and ancillary systems will be upgraded and repurposed to serve P3 to the extent feasible. If P3 is approved and developed, MGS Units 1 and 2 would be retired at the completion of commissioning of P3, but the applicant's intention is that the approximately 200 foot-tall exhaust stack and the structures housing the two units would remain. The generator output from P3 will be stepped-up via transformer to 220-kilovolt (kV) transmission voltage from the GE 7HA.01 CTG operating in simple-cycle mode. The power block will provide peaking power and is expected to operate up to an approximate 30 percent capacity factor. Full-load output of the unit under expected operating and ambient conditions (temperature/relative humidity) will range from approximately 241 net megawatts (MW) to a peak of 271 net MW. The new generating unit will tie into the existing Mandalay Switchyard, owned by Southern California Edison (SCE), using one of the breaker positions that will be vacated when MGS Units 1 and 2 are removed from service.

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

Total estimated annual water use for P3 is expected to be approximately 16 acre-feet per year (AFY). The process water and potable water source will be water from the city of Oxnard; the point of connection will be to the existing MGS potable water supply. Sanitary wastewater will be discharged to the existing MGS septic system. Process wastewater will be stored in one of the existing MGS detention basins, and ultimately discharged to the Pacific Ocean via an existing outfall. Stormwater runoff from the project site will be directed via a new stormwater conveyance system to either the service water tank for reuse to offset potable water use, or to the existing north and south detention basins and eventually discharged through the outfall to the ocean.

If approved, construction of P3 is expected to occur over a 21-month period (from October 2018 through June 2020). Construction is expected to cost approximately \$235 to \$270 million (in 2015 dollars). Commercial operation of P3 is expected by June 2020.

POTENTIAL MAJOR ISSUES

This portion of the report contains a discussion of the potential major issues that staff has identified to date. Discovery is currently under way, and staff issued the first set of Data Requests on July 17, 2015. So far, four parties (the city of Oxnard, Environmental Coalition, Environmental Defense Center, and Sierra Club Los Padres Chapter) have petitioned the Committee and have been granted the right to intervene in the P3 proceeding. Other potentially interested parties have not yet had an opportunity to identify their concerns. The identification of the potential issues contained in this report is based on comments of other government agencies received to date and on staff's judgment of whether any of the following circumstances could occur:

- Potential significant impacts that may be difficult to mitigate;
- Potential areas of noncompliance with applicable laws, ordinances, regulations, or standards (LORS);
- Areas of conflict between the parties; or
- Areas where resolution may be difficult or may affect the schedule.

The following table lists all the AFC subject areas evaluated and notes those areas where potential major issues have been identified and/or data requests have been prepared. Although most technical areas are identified as having no potential issues, it does not mean that an issue will not arise in the future. In addition, disagreements regarding the appropriate conditions of certification may arise between staff and applicant that would require discussion at workshops and potentially during subsequent hearings.

Subject Area	Major Issue	Data Request
Air Quality/Greenhouse Gases	Yes	Yes
Alternatives	Yes	No
Biological Resources	Yes	No
Cultural Resources	No	No
Efficiency and Reliability	No	No
Facility Design	No	No
Geological Resources	Yes (included in Soil & Water)	No
Hazardous Materials	No	Yes
Land Use	Yes	No
Noise and Vibration	No	No
Project Description	No	No
Paleontological Resources	No	No
Public Health	No	Yes
Socioeconomics	No	No
Soil & Water Resources	Yes	Yes
Traffic and Transportation	No	Yes
Transmission Line Safety	No	No
Transmission System Engineering	No	No
Visual Resources	No	No
Waste Management	No	No
Worker Safety and Fire Protection	No	Yes

This report does not limit the scope of staff's analysis throughout this proceeding, but acts to aid in the identification and analysis of potentially significant issues that P3 poses at this stage. The following discussion summarizes major issues, identifies the parties needed to resolve each issue, and outlines a process for achieving resolution.

AIR QUALITY AND GREENHOUSE GASES

BACKGROUND AND MAJOR ISSUE

Insufficient Air Quality Mitigation

Currently, the local Air District, Ventura County Air Pollution Control District (VCAPCD) would only require Emission Reduction Credits (ERCs) as mitigation for the criteria pollutant nitrogen oxides (NO_x), an ozone precursor. Under VCAPCD Rule 26.2.B.1, emissions offsets are required for nonattainment pollutants with an increase in potential to emit (PTE). Based on data in the AFC, the VCAPCD would require mitigation for NO_x as an ozone precursor, but not for volatile organic compounds (VOCs) because the VOC PTE does not increase.

Energy Commission staff will prepare their analysis on actual nonattainment emissions, i.e., recent historical emissions and the proposed project, not the PTEs of the existing and proposed projects. Since actual site VOC emissions would increase with P3, we will consider recommending mitigation for both NO_x and VOC emissions as ozone precursors. The local Ventura County Air Basin (VCAB) is an attainment basin for PM_{2.5}. The VCAB is nonattainment for PM₁₀, but is not identified as so in the AFC. Staff will prepare its analysis based on actual emission, not PTE, of P3 particulate matter (PM₁₀) and may recommend that PM₁₀ and its precursor, sulfur oxides (SO_x), be fully mitigated. NO_x emissions are also a PM₁₀ precursor but staff believes NO_x as a PM₁₀ precursor will be mitigated sufficiently by the ERCs required as ozone mitigation.

Energy Commission staff believe that these additional mitigation measures may be difficult to develop in the local region. Developing mitigation measures in a relatively “clean” area such as Ventura County could be time consuming, potentially delaying the proposed schedule for the proceeding.

Staff issued Air Quality Data Requests to address this potential issue.

ALTERNATIVES

BACKGROUND AND MAJOR ISSUE

AFC Does Not Analyze Alternative Locations

Staff will provide a complete evaluation of project alternatives, including consideration of potentially feasible alternative locations, for the Puente Power Project (P3).

The California Environmental Quality Act (CEQA) requires environmental documents to “... describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives.” The environmental documents “... must also consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation” (Cal. Code Regs., tit.20, § 15126.6(a)). Further, “The Lead Agency is responsible for selecting a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives” (Cal. Code Regs., tit.20, § 15126.6(a)).

In the AFC (section 5.0 Alternatives), the applicant describes several alternatives to various aspects of the project, such as generation technologies and configurations, water supply sources, wastewater handling systems, and emission control technologies. The applicant also discusses the “No Project” alternative.

The applicant did not provide an evaluation of alternative sites in the AFC. The applicant contends that any alternate site would preclude it from feasibly satisfying the project objectives. The following is a summary of the applicant’s reasons for not considering any alternative locations:

- CEQA does not require discussion of alternative project locations.
- An evaluation of alternatives sites is not required for natural gas-fired thermal power plants proposed at existing industrial sites, in accordance with the Warren-Alquist Act (Pub. Resources Code, § 25540.6(b)).
- The applicant does not have ownership or control over alternative sites where the proposed project could be located. It is unlikely the applicant could identify, evaluate, and acquire an alternative site that could accommodate the proposed project by its commissioning date of June 1, 2020.
- The construction and operation of a power plant and its infrastructure at an alternate location would likely result in new, significant environmental impacts.
- The Resource Adequacy Purchase Agreement (RAPA) awarded by Southern California Edison (SCE) is both technology- and location-specific, and it calls for new generation to be developed at the Mandalay Generating Station (MGS) site. Therefore, development of P3 at a site other than the existing MGS site would preclude the applicant from meeting its obligations under the RAPA with SCE.

The applicant is correct in that CEQA does not require evaluation of alternative locations for a proposed project, and also that the Energy Commission may exempt projects proposed on existing industrial sites from having to discuss site alternatives in an AFC, should the Commission determine that the project has a “strong relationship” to the site (Pub. Resources Code, § 25540.6(b)).

However, in preparing its alternatives evaluation, staff must first determine whether any of the potential significant effects of the project could be avoided or substantially lessened by putting the project in another location (Cal. Code Regs., tit.20, § 15126.6(f)(2)(A)). Due to the proposed project's potential for adverse effects to biological resources, and that it may not be in compliance with local LORS, staff believes that considering potentially feasible alternative site locations may be warranted. At this stage of AFC review, staff is considering the following project alternatives:

- Alternative site locations (including Ormond Beach),
- Reconfiguring the existing MGS site (no demolition of MGS Units 1 and 2, only new construction of P3), and
- Demolishing the existing MGS Units 1 and 2, and developing P3 in its footprint.

As AFC review and the current discovery period advances, staff may identify other potential impacts that could warrant formulating other project alternatives.

BIOLOGICAL RESOURCES

BACKGROUND AND MAJOR ISSUES

The proposed Puente Power Project (P3 or project) would entail the development of approximately 3 acres of disturbed habitat in the northern portion of the existing Mandalay Generating Station (MGS). Prior to development, the site was covered by dunes and associated native vegetation. Installation of new linears and expansion of existing linears would primarily occur on the previously developed portions of the MGS site, with the exception of the 10-inch natural gas line, which extends east off the 3 acre site into previously disturbed areas.

This project site has long been used for industrial spoils and laydown areas, and currently supports a mixture of non-native ice plant mats and native vegetation. The project owner and Energy Commission staff have also documented scattered individual woolly seablite plants, a plant that merits consideration under CEQA significance standards. This vegetation primarily supports common wildlife species that are adapted to developed areas. Large and medium-sized mammals are not expected to occur on site, due to the existing facility fencing.

Adjacent offsite habitat includes sand dunes, beaches, saltwater marsh, lagoons, the McGrath Lake, and other habitat that supports special status plants and wildlife, along with large swaths of ice plant. The sandy beaches to the west of the site, including McGrath State Beach to the north and Mandalay State Beach to the south, are known nesting sites for sensitive shorebirds, including the western snowy plover (classified as threatened under the federal Endangered Species Act and a California State Special Species of Concern) and California least tern (federally and state listed as endangered).

Appropriate dune nesting habitat for these special status species may exist as close as 500 feet northwest of the P3 site boundary, based on habitat assessments performed by the project owner. The site falls within the usual jurisdiction of the California Coastal Commission (CCC).

Potential for California Coastal Commission-Designated Wetlands

Pursuant to California Coastal Act Section 30233, “(a) The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following: (1) New or expanded port, energy, and coastal-dependent industrial facilities, including commercial fishing facilities..” Furthermore, Coastal Act Section 30121 requires the maintenance and restoration (if feasible) of the biological productivity and quality of wetlands appropriate to maintain optimum populations of marine organisms and for the protection of human health.

While CCC regulations (California Code of Regulations Title 14) requires wetland delineation similar to United States Army Corps of Engineers (USACE) guidelines which identify wetlands based on three indicators (hydrology, soil, and vegetation), CCC can make a positive wetland determination based on the presence of only one of the above parameters. One area at the project site contains wetland vegetation (wooly seablite) that may meet one of the parameters for CCC-designated wetlands. Currently, the applicant maintains that the area is not a wetland, and therefore has not proposed avoiding or mitigating impacts to this area. Energy Commission staff is coordinating with CCC staff to determine if the project site may be considered a wetland under the regulations of the CCC. CCC staff has indicated they will visit the site and review the project owner’s wetland delineation presented in the AFC to verify the jurisdictional status. Should the area be determined to meet the CCC’s criteria for a wetland, and there are no feasible alternatives to avoid impacting it, a suitable mitigation plan would need to be developed.

Potential Attraction of Predatory Avian Species

As currently planned, the applicant would not demolish MGS Units 1 and 2 after retirement. While operating, noise and vibration, in conjunction with human activities on and around MGS Units 1 and 2 deters avian roosting and nesting on the structures. Once retired, the USFWS and Energy Commission staff believe that Units 1 and 2 could serve as nesting and roosting habitat for avian species, including predatory species such as ravens, hawks, starlings, etc. Units 1 and 2 are the tallest structures in the area and would serve as perching sites for these predatory species; the increased presence of such species could negatively impact survival rates of the eggs and young of western snowy plovers and California least terns.

Preliminary conversations between Energy Commission staff and USFWS staff indicate that netting or other deterrents would need to be placed on Units 1 and 2, and

maintained for as long as these units remain. Currently, the mitigation measures proposed by the applicant, such as **BIO-7** (Snowy Plover and Least Tern Monitoring During Construction) and **BIO-11** (Biological Monitoring of Nesting Birds During Construction), do not include measures to deter perching or nesting of predatory avian species on Units 1 and 2, and are therefore insufficient to mitigate the potential impacts on western snowy plovers and California least terns. Staff will work with the wildlife agencies and the applicant to develop an appropriate perching deterrence plan for MGS Units 1 and 2.

LAND USE

BACKGROUND AND MAJOR ISSUE

Potential Inconsistency with Future Updates to Oxnard's Local Coastal Program

The P3 project would be consistent with the current Oxnard Zoning Ordinance designation Public Utility/Energy Facility (PUE) and local coastal program (LCP), but would be inconsistent should the city adopt the new LCP in December 31, 2016, as described below.

On July 7, 2014 the Oxnard City Council adopted two resolutions (Resolution Nos. 14,655 and 14,656) authorizing the proposal and submittal of a Local Coastal Program Planning Grants Joint Application Form to the California Coastal Commission. The grant funding will be used by the city to prepare a comprehensive sea-level rise (SLR) analysis, an adaptation report, and an LCP update. The city expects to complete the SLR analysis and the adaptation report by December 31, 2015 and expects to adopt the new LCP by December 31, 2016. The city's actions are intended to achieve the following:

- Prevent non-coastal-dependent energy facilities in the Energy Coastal zone with exceptions for renewable energy under certain conditions and consistent with the Coastal Act;
- Update the Oxnard LCP with the intent of eventual decommissioning of the Southern California Edison (SCE) McGrath Peaker Plant, Mandalay, and Ormond Beach power generation facilities by land use designation change, amortization, revised development standards, transferable development rights, and/or other methods;
- Initiate and implement policy and regulatory actions, and support actions of other relevant agencies that implement the LCP with regard to the future use of the SCE McGrath Peaker Plant, Mandalay, and Ormond Beach power plants; and
- Change land use designations within the Coastal Zone to those included in the 2030 General Plan Land Use Map, if and as amended.

The city of Oxnard's Ordinance No. 2882 (adopted in July 2014) imposed a one-year moratorium (subsequently extended for a second year) on the approval of any special use permit, coastal development permit or any other discretionary city permit for any on-site energy generation facilities located within the Oxnard Coastal Zone. Staff will work with the city regarding conformity with current or pending land use LORS, recognizing that the Energy Commission's review authority supersedes the city's review authority for the proposed P3 facility, pursuant to the Warren-Alquist Act.

SOIL, WATER AND GEOLOGIC RESOURCES

BACKGROUND AND MAJOR ISSUES

Staff reviewed the P3 application and found three issues related to flooding that could significantly affect the licensing schedule. When determining significance of potential flooding issues, differing interpretations of guidance documents could result in differing conclusions, and the imposition of mitigation that is insufficient or excessively conservative. Disagreements regarding the appropriate conditions of certification may arise between parties, requiring discussion at workshops and potentially during the hearings. Furthermore, staff is concerned that some potential significant impacts may be difficult to mitigate.

The three issues are summarized below, all pertaining to whether potential flood impacts would be significant and require mitigation. Due to the organization of technical topics in the staff assessment, the first two issues are analyzed in the Soil and Water Resources section and the third issue is analyzed in the Geology/Paleontology section.

Critical Facility

The California Coastal Commission Draft Sea Level Rise Policy Guidance¹ contains a chapter dedicated to adaptation strategies that local governments and coastal planners can consider. It includes strategies where the goal is for critical infrastructure to require special consideration (such as applying a 500-year event design standard, assuming the highest sea-level rise projections, and protection from the worst-case future impacts). Damage to critical facilities could potentially reduce available emergency services, affect recovery times to regaining full functionality, and place additional operational and economic burdens on communities.

The issue identified by staff is whether or not P3 is considered critical and how the effects of flooding should be incorporated into project design. While maintaining electrical service is definitely vital during and after a major natural disaster, staff's

¹ The Policy Guidance is currently in draft form for public review and comment. The final document will be prepared and presented to the Coastal Commission for possible action at its August 2015 hearing.

current understanding is that the proposed P3 facility would not be absolutely essential in providing power to the local area because the electrical grid incorporates redundancies to provide power from other sources. Staff anticipates there will be disagreement on this issue, and staff will rely on appropriate agencies (i.e. California ISO) to determine whether or not P3 should be considered critical.

Sea Level Rise

The State of California Sea-Level Rise Guidance Document (March 2013 update) was developed to inform and assist state agencies as they develop approaches for incorporating sea-level rise (SLR) into planning decisions. Although the estimates of future SLR provided in the document are intended to enhance consistency across California state agencies, the document is not intended to prescribe that all state agencies use specific or identical estimates of SLR as part of their assessments or decisions. Because of differing mandates and decision-making processes, state agencies are to interpret and use the document in a flexible manner, taking into consideration relevant factors.

Staff will follow the seven policy recommendations listed in the guidance document in their analysis. Because most of these recommendations call for consideration of various factors, other parties may disagree with how staff implements the guidance document to the P3 project. For example, staff believes the project's expected 30-year life is a reasonable and appropriate time horizon to analyze SLR. Assuming an approved project would begin operating in 2020 as proposed, staff will mainly focus on potential sea-level rise to a 2050 time horizon. Other items of disagreement could include: level of appropriate risk tolerance, consideration of appropriate impact scenarios (storms and other extreme events), and the role of shoreline changes.

Tsunami

Staff is required to analyze the potential for the project site to be impacted by a tsunami and, if needed, recommend appropriate mitigation. This potential risk is exacerbated by future sea-level rise, resulting in the possibility that smaller tsunamis in the future could have impacts similar to a larger tsunami today. As discussed above, staff anticipates there could be disagreement on conclusions related to sea-level rise as a higher sea-level could cause increased flooding impacts from storms and tsunamis in the future. Controversy is likely to extend into determination of the significance of impacts to the site from a future tsunami occurring when sea-level is higher than it is today. Agreement between parties on the likelihood of the significance of tsunami impact in the future could take time to resolve and/or be difficult to agree on proposed mitigation measures, if needed.

STAFF'S PROPOSED SCHEDULE - PUENTE POWER PROJECT (P3)
(15-AFC-01)

	ACTIVITY	Calendar Day
1	Application for Certification submitted	4-15-15
2	Staff Issues Data Request (Round 1)	7-17-15
3	Staff Files Issues Identification Report	8-10-15
4	Applicant files Data Responses (Round 1)	8-17-15/ 9-29-15
5	Information Hearing and Site Visit	8-27-15
6	Data Response and Issue Resolution Workshop	9-29/30-15
7	Staff Files Data Requests (Round 2, if necessary)	10-7-15
8	Applicant Provides Data Responses (Round 2, if necessary)	11-6-15
9	Data Response and Issue Resolution Workshop (if necessary)	11-12-15
10	VCAPCD Issues Preliminary Determination of Compliance (PDOC)	11-17-15
11	Applicant submits Supplemental Information resulting from Workshops (if any supplemental information required)	11-23-15
12	Staff Files Preliminary Staff Assessment	12-22-15
13	Preliminary Staff Assessment Workshop(s)	1-25/26-16
14	VCAPCD Issues Final Determination of Compliance (FDOC)	2-15-16
15	Comments on PSA are Due	2-15-16
16	Staff files Final Staff Assessment (FSA)	3-10-16
17	Prehearing Conference*	3-31-16
18	Evidentiary Hearings*	4-18/19-16
19	Committee files Presiding Member's Proposed Decision*	5-20-16
20	Hearing on the PMPD*	6-22-16

*Staff's suggested date – actual dates to be determined by the Committee