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# Memorandum

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**From:** **California Energy Commission** - Patricia Kelly, Siting Project Manager  
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**Subject:** **Redondo Beach Energy Project (12-AFC-03)**  
**ISSUES IDENTIFICATION REPORT**

Attached is staff's Issues Identification Report for the Redondo Beach Energy Project. This report serves as a preliminary scoping document that identifies issues that Energy Commission staff believes will require careful attention and consideration. Energy Commission staff will present the issues report at the Informational Hearing and Site Visit separately noticed by the assigned Committee for the project.

This report also provides staff's proposed schedule of events for the siting process.

cc: Docket 12-AFC-03  
Proof of Service List  
Redondo Beach Listserve

**REDONDO BEACH ENERGY PROJECT  
(12-AFC-03)**

**ISSUES IDENTIFICATION REPORT  
September 2013**

**CALIFORNIA ENERGY COMMISSION  
Siting, Transmission and Environmental Protection Division**

# **ISSUES IDENTIFICATION REPORT REDONDO BEACH ENERGY PROJECT (12-AFC-03)**

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# ISSUES IDENTIFICATION REPORT

## Energy Commission Staff Report

### PURPOSE OF REPORT

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This report has been prepared by the California Energy Commission staff to inform the Redondo Beach Energy Project (RBEP) Committee and all interested parties of the potential issues that have been identified in the case thus far. These issues have been identified as a result of staff's discussions with federal, state, and local agencies and staff's review of the RBEP Application for Certification (AFC) filed by AES Southland Development, LLC (AES) on November 20, 2012.

The Issues Identification Report contains a project description, summary of potentially significant environmental and engineering issues, and a discussion of the proposed project schedule. Staff will continue to address these issues and inform the Committee about progress towards their resolution by submitting periodic status reports to the Committee.

### PROJECT DESCRIPTION

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RBEP is a proposed natural gas-fired, combined-cycle, air-cooled electrical generating facility with a net generating capacity of 496 megawatts (MW) that, if approved, would be constructed on the site of, and eventually replace, the AES Redondo Beach Generating Station. The Wyland Whaling Wall would be dismantled and moved to a new location directly in front of the proposed power block.

RBEP would include the following principal design elements:

- Three Mitsubishi Power Systems Americas (MPSA) 501D CTGs with a nominal rating of 119 MW each. The CTGs will be equipped with evaporative coolers on the inlet air system and dry low oxides of nitrogen (NO<sub>x</sub>) combustors.
- Three HRSGs, each with a natural gas-fired duct burner for supplemental firing, an emission reduction system consisting of a selective catalytic reduction (SCR) unit to control NO<sub>x</sub> emissions, and an oxidation catalyst to control carbon monoxide (CO) and volatile organic compounds (VOC) emissions.
- One MPSA single-cylinder, single flow, impulse, axial exhaust condensing STG rated at 151 MW.
- Other equipment and facilities to be constructed include natural gas compressors, water treatment facilities, and buildings for emergency services, administration, and maintenance.
- One air-cooled condenser and one closed-loop fin fan cooler.
- A 230-kV interconnection to the existing onsite Southern California Edison (SCE) switchyard.
- Direct connection with the existing onsite Southern California Gas Company (SoCalGas) 20-inch diameter natural gas pipeline.

- Connection to existing onsite potable water line.
- Connection to existing onsite sanitary pipeline and to the existing permitted ocean outfall.
- Demolition of retired Units 1, 2, 3, and 4.
- Demolition of operating Units 5, 6, 7, and 8 and auxiliary boiler no. 17.
- Demolition of existing administrative buildings and ancillary facilities.

RBEP would reuse the existing natural gas, water, sewer, and high-voltage interconnections to the site; no offsite linear developments are proposed as part of the project. RBEP would use potable water for construction, operational process, and sanitary uses, but at substantially less volumes than historically used by the Redondo Beach Generating Station. Potable water would continue to be provided by the California Water Service Company. The new generating units would employ an air-cooled condenser and would eliminate the use of ocean water at the site. During RBEP operation, stormwater and process wastewater would be discharged to a retention basin and then ultimately to the Pacific Ocean via the existing ocean outfall as required by the Los Angeles County Regional Water Quality Control Board regulations for revised or new wastewater discharge. Sanitary wastewater would be conveyed to the Los Angeles County Sanitation District via the existing city of Redondo Beach sewer connection. RBEP would connect to the existing Southern California Edison (SCE) 230--(kV) switchyard via a new onsite interconnection.

## **DEMOLITION**

If the RBEP AFC is approved by the Energy Commission, construction and demolition activities at the project site are anticipated to last 60 months, from January 2016 until December 2020. The first activities to occur onsite would be the dismantling and partial removal of existing Units 1-4. The major generating equipment including steam turbines, generators, boilers, and duct work would be removed, leaving the administration building and western portion of the building that houses Units 1-4 intact. These buildings will be left standing temporarily to provide screening between the construction site of the new power block and Harbor Drive.

## **CONSTRUCTION SCHEDULE**

Construction of the new power block would begin in the first quarter of 2017 and continue to the end of the second quarter 2019 (approximately 36 months) when it would be ready for commercial operation. Although operational, construction would continue through 2019 including construction of the new control building and the relocation of the Wyland Whaling Wall. The existing Units 5-8 and auxiliary boiler no. 17 would remain in service until the second quarter of 2018. Units 5-8 and auxiliary boiler no. 17 would be demolished starting the first quarter of 2019 through the fourth quarter of 2020. Startup and testing of the new power block is scheduled for the first and second quarter of 2019. During the demolition and removal of Units 5-8, the Wyland Whaling Wall would be dismantled and moved to a new location directly in front of the new power block. Finally, the remaining buildings and structures left standing would be demolished and removed by the end of 2020.

The construction plan is based on a single shift composed of a 10-hour workday, Monday through Friday, and an 8-hour shift on Saturdays. There will be an average and peak workforce of approximately 149 and 338, respectively, comprising construction and demolition craft people, heavy equipment operators, support, and construction management personnel on site.

## **BACKGROUND**

A power plant was first built on the Redondo Beach Generating Station site in 1906-1907 and was operated for several years by the Pacific Light and Power Company. In 1917, the company and the power plant were purchased by Southern California Edison (SCE) who later built Units 1-4, which came on line in 1948 and 1949. Units 5 and 6 were added later, coming on line in 1956, and Units 7 and 8 came on line in 1968. AES purchased the power plants and site from SCE in 1998.

Since its construction, the facility has seen numerous changes. The facility was originally designed and built as dual fuel steam boilers (fuel oil and natural gas). By the late 1980s, the plant was converted to natural gas only. Starting in 1999, AES began to dismantle some of the facility and removed three of the exhaust stacks. In 2006, five large fuel tanks on the property were removed. Currently the plant contains four operating power units, four retired units, and a standby boiler (Morino 2011).

In addition to the existing ancillary facilities that would support RBEP, such as the natural gas pipeline and SCE 230-kV switchyard, other existing infrastructure at the existing Redondo Beach Generating Station, such as portions of the fire water distribution system, process water distribution and storage systems, wastewater discharge systems, and access roads would be used as needed to support RBEP.

## **PUBLIC AND AGENCY COORDINATION**

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The Energy Commission has the exclusive power to certify all sites and related facilities in the state. The issuance of a certificate by the Energy Commission supersedes any applicable statute, ordinance, or regulation of any state, local, or regional agency or federal agency to the extent permitted by law. However, the Energy Staff works with agencies that would typically have permitting jurisdiction to assure the project is in compliance with Laws, Ordinances, Regulations and Standards (LORS). The following is a list of agencies that Energy Commission staff will consult with in their review of the project: California Department of Fish and Wildlife; Department of Toxic Substances Control; City of Redondo Beach; Native American Heritage Commission; California Air Resources Board; U. S. Environmental Protection Agency Region IX; California Department of Transportation; County of Los Angeles; Army Corps of Engineers.

## **SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**

The South Coast Air Quality Management District (SCAQMD) is required under federal and state law to protect public health through achieving and maintaining healthful air quality in the South Coast Air Basin. This is accomplished through the development and adoption of an Air Quality Management Plan which outlines how the area will attain state and federal ambient air quality standards. The SCAQMD develops and enforces

air pollution control rules and regulations primarily for stationary sources in order to attain all state and federal ambient air quality standards and minimize public exposure to airborne toxins and nuisance odors. The SCAQMD issues permits to ensure compliance with air quality rules and regulations. The SCAQMD will prepare an analysis of the RBEP project proposal that includes a Preliminary Determination of Compliance (PDOC) and a Final Determination of Compliance (FDOC).

Energy Commission staff utilize the regional analysis as part of our applicable laws, ordinances, regulations or standards (LORS) analysis. Since the SCAQMD is a local permitting agency, these conditions will be included in the Energy Commission staff air quality analysis and conditions of certification for the RBEP project. Energy Commission staff and SCAQMD are working closely together to ensure that, if licensed, the RBEP is appropriately conditioned consistent with federal and state air quality standards.

Staff has been in contact with the SCAQMD pertaining to the availability of the PDOC. The SCAQMD has not indicated to staff if the PDOC could possibly delay the project review process.

### **CALIFORNIA COASTAL COMMISSION**

The RBEP project is located within the coastal zone and falls within the jurisdiction of the California Coastal Commission (CCC). In 2005, the Energy Commission and CCC entered into a Memorandum of Agreement to ensure timely and effective coordination between the two agencies during the Energy Commission's review of an AFC for a proposed project. Pursuant to requirements of Public Resources Code sections 25523(b) and 30413(d), the CCC is responsible for providing a report to the Energy Commission specifying provisions regarding the proposed site and related facilities to meet the objectives of the California Coastal Act. As stated in section 30413(d), the report is to include findings on all of the following:

- 1) The compatibility of the proposed site and related facilities with the goal of protecting coastal resources.
- 2) The degree to which the proposed site and related facilities would conflict with other existing or planned coastal-dependent land uses at or near the site.
- 3) The potential adverse effects that the proposed site and related facilities would have on aesthetic values.
- 4) The potential adverse environmental effects on fish and wildlife and their habitats.
- 5) The conformance of the proposed site and related facilities with certified local coastal programs in those jurisdictions which would be affected by any such development.
- 6) The degree to which the proposed site and related facilities could reasonably be modified so as to mitigate potential adverse effects on coastal resources, minimize



conflict with existing or planned coastal-dependent uses at or near the site, and promote the policies of this division [the California Coastal Act].

- 7) Such other matters as the commission deems appropriate and necessary to carry out this division.

The Energy Commission staff has contacted the CCC staff regarding the Energy Commission certification process and timeline. The Energy Commission staff is working with the CCC staff to insure their concerns are addressed as part of our review and analysis of the project proposal.

## **POTENTIAL MAJOR ISSUES**

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This portion of the report contains a discussion of the potential issues the Energy Commission staff has identified to date. The Committee should be aware that this report may not include all of the significant issues that may arise during the case, since discovery is not yet complete and other parties have not 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 and on staff's judgment of whether any of the following circumstances could occur:

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

The following table lists all the subject areas evaluated and notes those areas where potentially significant issues have been identified as well as whether data requests will be needed. Although most technical areas are identified as having no potential major 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, applicant and other parties that will require discussion at workshops and potentially during subsequent hearings.

Major Issues	Data Requests	Subject Area	Major Issues	Data Requests	Subject Area
No	Yes	Air Quality	No	No	Project Description
Yes	Yes	Alternatives	No	No	Public Health
No	Yes	Biological Resources	No	Yes	Reliability
Yes	Yes	Cultural Resources	No	Yes	Socioeconomics
No	Yes	Efficiency	No	No	Soils and Water Resources
No	Yes	Facility Design	No	Yes	Traffic and Transportation
No	No	Geological Hazards	No	No	Trans. Line Safety & Nuisance
No	No	Hazardous Materials Handling	No	No	Transmission System Design
No	Yes	Land Use	No	Yes	Visual Resources
No	Yes	Noise	No	No	Waste Management
No	No	Paleontological Resources	No	No	Worker Safety

DRs – Data Requests

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 the RBEP project poses. The following discussion summarizes major issues, identifies the parties needed to resolve the issue, and outlines a process for achieving resolution.

## ALTERNATIVES

As the CEQA lead agency for the RBEP, the Energy Commission is required to consider and discuss alternatives to the RBEP. The guiding principles for the selection of alternatives for analysis are provided by the CEQA Guidelines (Cal. Code Regs., tit. 14, §15000 et seq.). In accordance with Section 15126.6 of the CEQA Guidelines, the alternatives analysis must:

- 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;
- Consider alternatives that would avoid or substantially lessen any significant environmental impacts of the project, including alternatives that would be more costly or would otherwise impede the project’s objectives; and
- Evaluate the comparative merits of the alternatives.

As the CEQA lead agency, the California Energy Commission is responsible for selecting a reasonable range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives (Cal. Code Regs., tit. 14, §15126.6[a]). CEQA does not require an agency to “consider every conceivable alternative to a project.” Rather, CEQA requires consideration of a “reasonable range of potentially feasible alternatives.” The reasonable range of alternatives must be selected and discussed in a manner that fosters meaningful public participation and informed decision making (Cal. Code Regs., tit. 14, §15126.6[f]). That is, the range of alternatives presented in the analysis is limited to those that will inform a reasoned choice by the Energy Commissioners. In addition, the feasibility of alternatives would be taken into account as it relates to alternative site suitability, economic viability, availability of

infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries, and whether the proponent can reasonably acquire, control or otherwise have access to an alternative site.

Under the Warren-Alquist Act, Public Resources Code section 25540.6(b), the Commission may accept an application for a new power plant at an existing industrial site without requiring a discussion of site alternatives if the Commission finds that the proposed project “has a strong relationship to the existing industrial site and that it is therefore reasonable not to analyze alternative sites for the project.” Nevertheless, staff will investigate and analyze potential site alternatives to the proposed project during the discovery phase of the process.

In order for staff to develop a meaningful alternatives analysis, considerable information must be obtained in multiple technical areas. Staff has initiated its review of the RBEP project and is currently developing a series of data requests. Staff is preparing these data requests to better understand the alternatives the applicant considered during the development of its application and will also request additional information related to alternatives not included in the AFC.

Alternatives that staff will be considering in its analysis include, but are not limited to:

- No Project Alternative Scenarios
  - Reasonably foreseeable scenario – The scenario most likely to occur at the RBGS without implementing the proposed RBEP and to keep the power plant in operation, including once-through cooling (OTC) retrofit options.
  - Decommissioning/site restoration – Full decommissioning of the RBGS, including site remediation/restoration.
- Reconfigured Site Alternative
- On-Site Technology Alternatives
- Site Alternatives
- Other Alternatives (e.g., distributed generation, energy efficiency, etc.)

## **CULTURAL RESOURCES**

The AFC identifies eleven historic-period built-environment resources within the study area, including the Redondo Beach Generating Station (RBGS) and the SEA Lab building across Harbor Drive from RBGS, which was the original pump house for RBGS Unit 1. The applicant recorded and evaluated the RBGS as a district, with individual evaluations of all extant built-environment structures and features. The SEA Lab building was recorded and evaluated separately. The applicant concluded that the RBGS district, its individual structures and the SEA Lab building do not meet the eligibility criteria for listing on the California Register of Historical Resources (CRHR) and therefore are not historical resources under CEQA (Section 15064.5 (a)(2)-(3) of the CEQA Guidelines and Section 5024.1 of the California Public Resources Code).

The applicant's evaluation found that RBGS was part of a larger trend to build steam plants in postwar California and not significant in the history of Southern California Edison (SCE), the history of steam generation or the history of post-war steam generation plants that might make it eligible under Criterion 1/A. Furthermore, it was concluded that the steam plant is not associated with the life of a significant person (Criterion 2/B), and does not appear to be a source of important information (Criterion 4/D). While the applicant does an excellent job of describing the architectural features and their integrity, they do not explicitly evaluate the significance of RBGS under Criterion 3/C<sup>1</sup>, other than noting that Unit 1 and the Administration Building have retained integrity of location, setting, design, materials, workmanship, feeling and association. By omission, it is implied that it is not eligible under Criterion 3/C. In a separate evaluation, the SEA Lab building was found ineligible under all eligibility criteria, 1-4/A-D

Staff is investigating further the significance of the 1947-1948 RBGS Administration, Unit 1 and SEA Lab buildings relative to Criterion 1/A and 3/C. Significance themes which may be explored under Criterion 1/A and 3/C are as follows: the Art Moderne architectural style (type and period-3/C), the design and construction by a master/important creative individual (Stone & Webster Corporation-3/C), and the relationship of the site and building design to the 20<sup>th</sup> Century City Beautiful Planning movement in the United States, particularly as it relates to utilities (1/A). No determinations have been made that differ from the applicant's at this time but the period of discovery may yield additional information. This raises the possibility that staff's conclusions regarding the eligibility of the resources for listing on the California register and eligibility as historic resources may differ from the applicant's and may require mitigation for impacts to the RBGS Administration Building and Unit 1, not anticipated or proposed by the applicant in the AFC.

## **ENVIRONMENTAL JUSTICE**

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Based on the 2010 Census data, 59.5 percent of the total population living within the six-mile buffer of the RBEP site is an ethnic minority which constitutes an environmental justice population.

Staff will review the impacts resulting from the construction and operation of the proposed project, to determine if minority or low-income populations would be significantly or adversely impacted. Staff is working with the Hearing Officer and Public Advisor to ensure that adequate public outreach and noticing takes place for workshops and document availability.

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<sup>1</sup> The resource embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.

## PROJECT SCHEDULE

The following provides staff's proposed schedule for the key events of the project. Meeting the proposed schedule will depend on: the applicant's timely response to staff's data requests; the timing of the South Coast Air Quality Management District's (SCAQMD) filing of the Preliminary Determination of Compliance (PDOC), Final Determination of Compliance (FDOC), and determinations by other local, state and federal agencies, and other factors not yet known.

### ENERGY COMMISSION STAFF'S PROPOSED SCHEDULE Redondo Beach Energy Project (12-AFC-03)

ACTIVITY	DATE
Application for Certification determined to be "Data Adequate" at Commission Business Meeting	8/27/13
Staff files Issues Identification Report	9/20/13
Information hearing and site visit	10/1/13
Staff files first round of Data Requests	10/8/13
Applicant files Data Responses	11/8/13
Data response and issue resolution workshop	11/21/13
Staff files data requests (round 2, if necessary)	12/12/13
Applicant provides data responses (round 2, if necessary)	01/12/14
Data Response and Issue Resolution Workshop	01/17/14
Applicant submits supplemental information resulting from workshop	02/09/14
SCAQMD issues Preliminary Determination of Compliance (PDOC)	01/24/14
Preliminary Staff Assessment published	03/10/14 (PDOC + 45)
Preliminary Staff Assessment Workshop	03/25/14 (PSA + 15)
SCAQMD issues Final Determination of Compliance (FDOC)	03/25/14 (PDOC + 60)
Final staff assessment published	05/09/14 (FDOC + 45)
Prehearing Conference*	TBD
Evidentiary hearings*	TBD
Committee files Presiding Members Proposed Decision (PMPD)*	TBD
Committee Hearing on PMPD*	TBD
Committee files errata or revised PMPD (if necessary) *	TBD
Energy Commission final Decision*	TBD

\* The assigned Committee will determine this part of the schedule.