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## Memorandum

Date: April 17, 2014  
Telephone: (916) 654-5191  
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To: **Commissioner Karen Douglas**, Alamos Presiding Member  
**Commissioner Janea A. Scott**, Alamos Associate Member  
**Ken Celli**, Hearing Officer



From: **California Energy Commission** – Keith Winstead, Siting Project Manager  
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Subject: **Alamos Energy Center (13-AFC-01)**  
**ISSUES IDENTIFICATION REPORT**

Attached is staff's Issues Identification Report for the Alamos Energy Center. 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 13-AFC-01  
Proof of Service List  
Alamos Energy Center Listserve

**ALAMITOS ENERGY CENTER PROJECT  
(13-AFC-01)**

**ISSUES IDENTIFICATION REPORT  
April 17, 2014**

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

**ISSUES IDENTIFICATION REPORT  
ALAMITOS ENERGY CENTER (13-AFC-01)**

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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 Alamos Energy Center (AEC) Committee and all interested parties of any potential issues that have been identified in the case thus far. Based upon the Energy Commission staff's review of the AEC Application for Certification (AFC) filed by AES Southland Development, LLC (AES) on December 27, 2013, and discussions with federal, state, and local agencies, no issues have been identified.

The Issues Identification Report contains a project description, demolition and construction schedule, public and agency coordination, technical subject areas table identifying any data requests, and a proposed project review schedule.

### **PROJECT DESCRIPTION**

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The AEC is a proposed natural gas-fired, fast starting, combined-cycle gas-turbine, air-cooled generating facility with a net generating capacity of 1,936 megawatts (MW) and gross generating capacity of 1,995 MW. The AEC would replace and be constructed on the site of the existing Alamos Generating Station (AGS). The project would consist of four 3-on-1 combined-cycle gas-turbine power blocks consisting of twelve natural gas-fired combustion-turbine generators, twelve heat-recovery steam generators, four steam-turbine generators, four air-cooled condensers, and related ancillary equipment. The AEC would use air-cooled condensers for cooling, completely eliminating the existing ocean water once-through cooling system. The AEC is proposed to use potable water provided by the city of Long Beach Water Department (LBWD) for construction, operational process, and sanitary uses. This water would be supplied through existing onsite potable water lines.

The AEC would interconnect to the existing SCE 230-kilovolt (kV) switchyard adjacent to the northern side of the property. Natural gas would be supplied to the AEC via the existing offsite 30-inch-diameter, high-pressure pipeline owned and operated by SoCalGas that currently serves the existing facility. New natural gas compressors would be constructed within the existing site footprint. Emergency service facilities would be constructed. Existing administrative buildings, control room would remain in use for the project. Storm water would be discharged into two retention basins and then ultimately to the San Gabriel River via existing storm water outfalls.

The AEC would include a new 1,000 linear foot process/sanitary wastewater pipeline to the first point of interconnection with the existing LBWD sewer system and would eliminate the current practice of treatment and discharge of process/sanitary wastewater to the San Gabriel River. Therefore, this possible offsite project-related improvement to the LBWD system will require analysis during the Energy Commission certification process.

The AEC would include the following principal design elements:

- twelve Mitsubishi Power Systems America (MPSA) 501DA combustion-turbine generators (CTG) with a nominal rating of approximately 119 MW each. The CTGs would be equipped with evaporative coolers on the inlet air system and dry low oxides of nitrogen (NO<sub>x</sub>) combustors;
- four single-cylinder steam turbine generators (STG) with a nominal rating of approximately 143 MW each;
- twelve heat-recovery steam generators (HRSGs). Each HRSG would be equipped with a selective catalytic reduction (SCR) unit in the outlet ductwork for the control of NO<sub>x</sub> emissions and an oxidation catalyst to control carbon monoxide (CO) and volatile organic compound (VOC) emissions;
- four air-cooled condensers and four closed-loop cooling fin-fan coolers;
- four 230-kV interconnections to the existing SCE switchyard, which is adjacent to the site;
- direct connection to an existing SoCalGas 30-inch-diameter natural gas pipeline;
- demolition of Alamitos Generating Station Units 1–6 and retired AGS Unit 7;
- demolition of ancillary facilities and selected existing warehouses;
- connection to existing onsite potable water lines; and
- recontured two existing retention basins for stormwater discharged ultimately to the San Gabriel River via existing stormwater outfalls.

#### **DEMOLITION AND CONSTRUCTION SCHEDULE**

If the Energy Commission approves the AEC AFC, demolition of the AGS and construction activities at the project site are anticipated to last 139 months, from the first quarter of 2016 to the third quarter of 2027.

The AEC would include the following principal schedule elements:

- demolition of the old AGS Unit 7 is proposed to begin the first quarter of 2016, and to end by third quarter of 2016;
- construction of the new AEC power block 1 is proposed to begin the third quarter of 2016, with commercial operation proposed to begin the second quarter of 2019;
- construction of the new AEC power block 2 is proposed to begin the fourth quarter of 2016, with commercial operation proposed to begin the second quarter of 2019;
- demolition of old AGS Units 5 and 6 is proposed to begin the fourth quarter of 2018 and to end by the third quarter of 2020;
- construction of the new AEC power block 3 is proposed to begin the first quarter of 2020, with commercial operation proposed to begin the third quarter of 2022;
- demolition of the old AGS Units 3 and 4 is proposed to begin the first quarter of 2022, and to end by the fourth quarter of 2023;
- construction of new AEC Block 4 would begin the second quarter of 2023, with commercial operation proposed to begin the fourth quarter of 2025; and



- demolition of old AGS Units 1 and 2 is proposed to begin the third quarter of 2025, and to end by the third quarter of 2027.

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 146 and 447, respectively, comprising construction and demolition workers, heavy equipment operators, support, and construction management personnel on site.

## **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, Energy Commission staff works with agencies that would typically have permitting jurisdiction to assure the project is in compliance with applicable laws, ordinances, regulations and standards (LORS). The following is an initial 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 Long Beach; Native American Heritage Commission; California Air Resources Board; Coastal Commission; South Coast Air Quality Management District (SCAQMD); U. S. Environmental Protection Agency Region IX; California Department of Transportation; County of Los Angeles; and Army Corps of Engineers.

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

The South Coast Air Quality Management District 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 AEC project proposal that includes a Preliminary Determination of Compliance (PDOC) and a Final Determination of Compliance (FDOC).

Energy Commission staff utilizes the regional analysis as part of our applicable 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 AEC project. Energy Commission staff and SCAQMD are working closely together to ensure that, if licensed, the AEC 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 but does not currently have a timeline for the permit to be issued.

## **CALIFORNIA COASTAL COMMISSION**

The AEC project is located within the coastal zone and falls within the jurisdiction of the California Coastal Commission (CCC). In 2005, the agency staffs of 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. The agreement recognizes the exclusive authority of the Energy Commission to certify sites and related facilities subject to the siting and timing requirements of the Warren-Alquist State Energy Resources Conservation and Development Act (Public Resources Code Section 25500 et seq.). The agreement also recognizes the Coastal Commission's role in Energy Commission proceedings as described in the Warren-Alquist Act, Public Resources Code section 25523(b), and in the California Coastal Act, Public Resources Code section 30413(d). Pursuant to the commitments of that agreement, the CCC is responsible for providing a report to the Energy Commission that addresses the elements included in Public Resources section 30413(d), including 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, 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

This portion of the report would contain a discussion of the potential issues the Energy Commission staff has identified to date. Energy Commission staff has reviewed the AFC and has found no potential major issues at this time. The Committee should be aware that should significant issues arise during the case since discovery is not yet complete and other parties have not had an opportunity to identify their concerns, staff will identify and address those issues in its status reports. The identification of any potential issues will be based on comments of other government agencies received 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 data requests are needed. Although 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 could 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
No	No	Alternatives	No	No	Public Health
No	Yes	Biological Resources	No	No	Reliability
No	Yes	Cultural Resources	No	Yes	Socioeconomics
No	No	Efficiency	No	No	Soils and Water Resources
No	No	Facility Design	No	No	Traffic and Transportation
No	No	Geological Hazards	No	No	Trans. Line Safety & Nuisance
No	Yes	Hazardous Materials Handling	No	No	Transmission System Design
No	Yes	Land Use	No	No	Visual Resources
No	No	Noise	No	No	Waste Management
No	No	Paleontological Resources	No	No	Worker Safety & Fire Protection

DRs – Data Requests

## 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), input by other local, state and federal agencies, and other factors not yet known.

### ENERGY COMMISSION STAFF'S PROPOSED SCHEDULE Alamitos Energy Center (13-AFC-01)

ACTIVITY	DATE
Application for Certification determined to be Data Adequate (DA) at Commission Business Meeting	3/12/14
Staff files Issues Identification Report	4/17/14
Staff files first round of Data Requests	4/24/14
Informational hearing and site visit	4/29/14
Applicant files Data Responses	5/26/14
Data response and issue resolution workshop (if necessary)	6/9/14
Staff files data requests round 2 (if necessary)	6/26/14
Applicant provides data responses (if necessary)	07/25/14
Data Response and Issue Resolution Workshop (if necessary)	08/8/14
SCAQMD issues Preliminary Determination of Compliance (PDOC)	09/10/14 (DA + 180)
Applicant submits supplemental information resulting from workshop (if necessary)	09/22/14
Preliminary Staff Assessment published	10/25/14 (PDOC + 45)
Preliminary Staff Assessment Workshop	11/12/14 (PSA + 15)
SCAQMD issues Final Determination of Compliance (FDOC)	11/12/14 (PDOC + 60)
Final staff assessment published	1/15/15 (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.