February 15, 2013

VIA EMAIL

Ms. Felicia Miller, Siting Project Manager
California Energy Commission
1516 Ninth Street
Sacramento, CA 95814

Re: Huntington Beach Energy Project (12-AFC-02)
   Applicant’s Responses to Data Requests, Set 3 (#99-103)

Dear Ms. Miller:

On behalf of Applicant AES Southland Development, LLC, please find enclosed herewith Applicant’s responses to Staff’s Data Requests, Set 3 (#99-103). Should you have any questions regarding these responses, please contact Robert Mason or me directly.

Respectfully submitted,

Melissa A. Foster

MAF:jmw
Enclosure
cc: Proof of Service
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Introduction

Attached are AES Southland Development, LLC’s (AES or the Applicant) responses to the California Energy Commission (CEC) Data Request, Set 3 (Soil and Water Resources, requests 99 through 103) regarding the Huntington Beach Energy Project (HBEP) (12-AFC-02) Application for Certification (AFC).

The responses are presented in the same order as the CEC presented them and are keyed to the Data Request numbers.

New or revised graphics or tables are numbered in reference to the Data Request number. For example, the first table used in response to Data Request 99 would be numbered Table DR99-1. The first figure used in response to Data Request 100 would be Figure DR100-1, and so on. Figures or tables from the HBEP AFC that have been revised have “R1” following the original number, indicating revision 1.

Additional tables, figures, or documents submitted in response to a data request (for example, supporting data, stand-alone documents such as plans, folding graphics, etc.) are found at the end of each discipline-specific section and are not sequentially page-numbered consistently with the remainder of the document, though they may have their own internal page numbering system.
BACKGROUND

Multiple predictive studies of relative sea-level rise indicate that the proposed project area could be affected during the life of the project. Projections indicate a relative mean sea-level rise along the southern California coast ranging from 4 to 30 centimeters (cm) by the year 2030 (CEC, 2009; NAS, 2012). The site geotechnical report (Ninyo & Moore, 2011) acknowledges future sea-level rise. An Energy Commission study (CEC, 2009) also shows the project site may have reduced flood protection and inundation potential in the future. A significant rise in local sea water levels would also raise groundwater levels, decrease relative flood protection currently afforded by levees along the Huntington Beach Flood Channel, raise the fluvial base level thereby increasing the rate and extent of flooding and potentially impact foundation integrity (increased liquefaction potential) of the power plant.

References


DATA REQUEST

99. Please discuss how AES considered current and future sea levels in the design and location of critical plant equipment, or in the design and maintenance plans of flood protection infrastructure?

Response: This request requires the Applicant to address the impact of the environment on the project, not the project’s impacts on the environment. However, “identifying the effects on the project and its users of locating the project in a particular environmental setting is neither consistent with CEQA’s legislative purpose nor required by the CEQA statutes.” (Ballona Wetlands Land Trust v. City of Los Angeles (2011) 201 Cal.App.4th 455, 475 [holding that, despite CEQA Guidelines section 15126.2(a), an EIR need not identify or analyze effects on the project caused by the environment].) Thus, the information sought herein exceeds the requirements of CEQA. Notwithstanding the foregoing, the HBEP site is approximately 14 feet above existing mean sea level. As noted above in CEC staff’s background section and in the references cited by staff, sea levels are rising as a result of climate change and, by 2030, forecast mean sea level in southern California is predicted to rise between 4 cm to 30 cm (approx 1.5 inches to 1 foot) due to climate change (CEC, 2009). By 2050, forecast mean sea level in southern California may rise by 0.5 meter (approximately 1.5 feet) (CEC, 2009, pg 8, Fig 2). In addition, with the rise in sea level, wave-induced storm surges and higher wave run-up may affect coastal areas. The CEC 2009 report (p. 8) includes a forecast of wave-induced storm surges in California of up to 1.5 meters (approximately 5 feet).

Depending on a number of factors, the HBEP facility has a projected operational expectancy of approximately 30 years, or until approximately 2050 based on an expected commercial operation date (COD) of 2018 to 2020. The combination of predicted sea level rise (approximate 1.5 feet) and increased wave-induced storm surges (approximately 5 feet) in southern California could result in an increase depth of inundation in the area of the HBEP site of approximately 6.5 feet from wave-induced storm surges; however, as the site’s existing elevation is
approximately 14 feet above existing mean sea level, there would still be a buffer of approximately 7.5 feet on the HBEPP site through its expected operational period of approximately 2050 (based on a COD of 2020 and 30 years of site operations).

At this early stage of the project, detailed design and engineering of HBEPP have not begun. As is consistent with power plant development under the jurisdiction of the CEC, the Applicant expects to contract with an Engineering, Procurement and Design (EPC) firm post-licensing of HBEPP by the CEC. The design and engineering of HBEPP will meet applicable laws, ordinances, regulations, and standard (LORS), including, but not limited to, California and federal building code requirements, as well as the applicable LORS of the City of Huntington Beach and Orange County. The detailed design and engineering for HBEPP will be provided to the Chief Building Official (CBO) assigned to HBEPP.

Regarding the location of critical HBEPP equipment on the site, please refer to the applicant’s Response to Data Request CCC-5 in the applicant’s Data Response Set 1A.

DATA REQUEST

100. Please describe existing structures or those proposed to be installed that will provide adequate flood protection that incorporate predicted sea level rise, i.e. raised foundations, berms, etc. How else will the site maintain its current Federal Emergency Management Agency (FEMA) status?

Response: As discussed in Data Response 99 above, at this stage of the AFC proceeding detailed design and engineering of HBEPP have not begun. The Applicant expects to contract with an EPC firm post-licensing of HBEPP by the CEC. The design and engineering of HBEPP will meet applicable LORS including those related to flood protection, including, but not limited to, California and federal building code requirements, and applicable LORS of the City of Huntington Beach and Orange County. The design and engineering of HBEPP will address any applicable LORS related to sea level rise, storm surge/wave run-up inundation, and site flooding protection. The detailed design and engineering for HBEPP will be provided to the CBO assigned to HBEPP.

DATA REQUEST

101. Please describe whether the existing Huntington Beach Flood Channel is adequate for flood protection considering projected sea-level rise effects.

Response: The existing flood control channels in the vicinity of the HBEPP site are owned, designed, operated, maintained and, as required, improved by the Orange County Public Works Flood Section. This includes improvements and modifications that may be required to address potential sea level rise and coastal inundation from climate change. Flood control and flood protection is by its very nature a regional issue and is the responsibility of local jurisdictions, such as the Orange County Public Works Flood Section. The best source of information regarding the existing flood control system in the vicinity of HBEPP is the Orange County Public Works Flood Section.

DATA REQUEST

102. Please describe whether the applicant would have any role in maintenance of the Huntington Beach Flood Channel or other flood control facilities that would protect the site.

Response: As discussed in response to Data Request 101, maintenance of the Huntington Beach Flood Control Channel and other flood control facilities in the vicinity of the HBEPP site is the responsibility of the Orange County Public Works Flood Section.
DATA REQUEST

103. Please discuss whether foreseeable increases in groundwater levels due to projected sea-level rise would increase liquefaction potential.

Response: As discussed in Data Response 99 above, at this time, detailed design and engineering of HBEP have not begun. The Applicant expects to contract with an EPC firm post-licensing of HBEP by the CEC. The design and engineering of HBEP will meet applicable LORS, including but not limited to California and federal building code requirements, and the applicable LORS of the City of Huntington Beach and Orange County. As part of the design and engineering, site conditions and factors will be taken into account, including any potential for liquefaction. The detailed design and engineering for HBEP will be provided to the CBO assigned to HBEP.
APPLICATION FOR CERTIFICATION FOR THE
HUNTINGTON BEACH ENERGY PROJECT

PROOF OF SERVICE
(Revised 02/11/2013)

SERVICE LIST:

APPLICANT
AES Southland, LLC
Stephen O'Kane
Jennifer Didlo
690 Studebaker Road
Long Beach, CA 90803
stephen.okane@aes.com
jennifer.didlo@aes.com

APPLICANT'S CONSULTANTS
CH2M Hill
Robert Mason
Project Manager
6 Hutton Centre Drive, Suite 700
Santa Ana, CA 92707
robert.mason@CH2M.com

APPLICANT'S COUNSEL
Melissa A. Foster
Stoel Rives, LLP
500 Capitol Mall, Suite 1600
Sacramento, CA 95814
mafoster@stoel.com

INTERVENOR
Jason Pyle
9071 Kapaa Drive
Huntington Beach, CA 92646
jasonpyle@me.com

INTERESTED AGENCIES
California Coastal Commission
Tom Luster
45 Fremont Street, Suite 2000
San Francisco, CA 94105-2219
tluster@coastal.ca.gov

California State Parks
Huntington State Beach
Brian Ketterer
21601 Pacific Coast Highway
Huntington Beach, CA 92646
bketterer@parks.ca.gov

City of Huntington Beach
Planning & Building Department
Jane James
Scott Hess
Aaron Klemm
2000 Main Street, 3rd floor
Huntington Beach, CA 92648
james@surfcity-hb.org
shess@surfcity-hb.org
aaron.klemm@surfcity-hb.org

City of Huntington Beach
City Council
Cathy Fikes
Johanna Stephenson
2000 Main Street, 4th floor
Huntington Beach, CA 92648
cfikes@surfcity-hb.org
johanna.stephenson@surfcity-hb.org

INTERESTED AGENCIES (Cont'd.)
California ISO
e-recipient@caiso.com

INTERESTED AGENCIES (Cont'd.)
Santa Ana Regional
Water Quality Board
Gary Stewart
3737 Main Street, Suite 500
Riverside, CA 92501-3339
gstewart@waterboards.ca.gov

Huntington Beach
Wetlands Conservancy
Jack Kirkorn, Director
21900 Pacific Coast Highway
Huntington Beach, CA 92646
jfk0480@aol.com

ENERGY COMMISSION STAFF
Felicia Miller
Project Manager
felicia.miller@energy.ca.gov

Kevin W. Bell
Staff Counsel
kevin.w.bell@energy.ca.gov

ENERGY COMMISSION —
PUBLIC ADVISER
*Blake Roberts
Assistant Public Adviser
publicadviser@energy.ca.gov

COMMISSION DOCKET UNIT
California Energy Commission —
Docket Unit
Attn: Docket No. 12-AFC-02
1516 Ninth Street, MS-4

*Indicates change
73383622.1 0043653-00005
Sacramento, CA 95814-5512
docket@energy.ca.gov

OTHER ENERGY COMMISSION PARTICIPANTS (LISTED FOR CONVENIENCE ONLY):
After docketing, the Docket Unit will provide a copy to the persons listed below. Do not send copies of documents to these persons unless specifically directed to do so.

ANDREW McALLISTER
Commissioner and Presiding Member

KAREN DOUGLAS
Commissioner and Associate Member

Raoul Renaud
Hearing Adviser

David Hungerford
Adviser to Commissioner McAllister

Patrick Saxton
Adviser to Commissioner McAllister

Galen Lemei
Adviser to Commissioner Douglas

Jennifer Nelson
Adviser to Commissioner Douglas

Eileen Allen
Commissioners' Technical Adviser for Facility Siting
DECLARATION OF SERVICE

I, Judith M. Warmuth, declare that on February 15, 2013, I served and filed copies of the attached Applicant's Responses to Data Requests, Set 3 (#99-103) dated February 15, 2013. This document is accompanied by the most recent Proof of Service, which I copied from the web page for this project at: http://www.energy.ca.gov/sitingcases/huntington_beach_energy/index.html.

The document has been sent to the other parties on the Service List above in the following manner:

(Check one)

For service to all other parties and filing with the Docket Unit at the Energy Commission:

X I e-mailed the document to all e-mail addresses on the Service List above and personally delivered it or deposited it in the US mail with first class postage to those parties noted above as "hard copy required"; OR

Instead of e-mailing the document, I personally delivered it or deposited it in the US mail with first class postage to all of the persons on the Service List for whom a mailing address is given.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct, and that I am over the age of 18 years.

Dated: February 15, 2013

Judith M. Warmuth