



California Energy Commission
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January 22, 2013

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VIA EMAIL

Ms. Felicia Miller, Siting Project Manager
California Energy Commission
1516 Ninth Street
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Re: Huntington Beach Energy Project (12-AFC-02)
Applicant's Responses to Staff's Data Requests, Set 2 (#73-98)

Dear Ms. Miller:

On behalf of Applicant AES Southland Development, LLC, please find enclosed herein for docketing Applicant's responses to Staff's Data Requests, Set 2 (#73-98). Please note supplemental files for visual resources will be provided in a separate submittal being docketed concurrently herewith; such files relate to Data Request 97.

Should you have any questions regarding this filing, please do not hesitate to contact me.

Respectfully submitted,

A handwritten signature in blue ink that reads "Melissa A. Foster".

Melissa A. Foster

MAF:jmw

Enclosure

cc: Proof of Service List



BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT
COMMISSION OF THE STATE OF CALIFORNIA
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**APPLICATION FOR CERTIFICATION FOR THE
HUNTINGTON BEACH ENERGY PROJECT**

**Docket No. 12-AFC-02
PROOF OF SERVICE
(Revised 12/24/12)**

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DECLARATION OF SERVICE

I, Judith M. Warmuth, declare that on January 22, 2013, I served and filed copies of the attached **Applicant's Responses to Staff's Data Requests, Set 2 (#73-98)** dated January 22, 2013. This document is accompanied by the most recent Proof of Service list, 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 in this proceeding (as shown on the Proof of Service list) and to the Commission's Docket Unit, as appropriate, in the following manner:

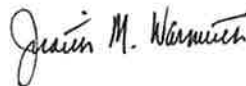
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- I e-mailed the document to all e-mail addresses on the Service List above and personally delivered it or deposited it in the US mail with first class postage to those parties noted above as "hard copy required"; **OR**
- Instead of e-mailing the 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: January 22, 2013



Judith M. Warmuth

Huntington Beach Energy Project

(12-AFC-02)

Data Responses, Set 2

(Data Requests 73 to 98)

Submitted to
California Energy Commission

Prepared by
AES Southland Development, LLC

CH2MHILL®

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January 22, 2013

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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 2 regarding the Huntington Beach Energy Project (HBEP) (12-AFC-02) Application for Certification (AFC).

The responses are grouped by individual discipline or topic area. Within each discipline area, the responses are presented in the same order as the CEC presented them and are keyed to the Data Request numbers (73 through 98).

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 36 would be numbered Table DR36-1. The first figure used in response to Data Request 42 would be Figure DR42-1, 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.

Noise (73)

BACKGROUND

The operational requirements and space constraints of the existing HBEP site will require that demolition, construction, operation and decommissioning activities take place concurrently and over a period of eight years. HBEP will generate cumulative noise levels for up to 4 discrete time periods as outlined in Table DR-73 below:

Table DR-73				
HBEP				
Concurrent Activities				
Period	I	II	III	IV
Units 1 & 2	Operation	Operation	Operation	Decommission Demolition
Units 3 & 4	Synchronous Condenser Operation	Synchronous Condenser Operation	Decommission Demolition	
Unit 5, Tanks	Demolition			
Power Block 1		Construction	Operation	Operation
Power Block 2			Construction	Operation

In order to evaluate the cumulative impacts of noise with multiple and concurrent activities, staff has determined that additional analysis is required and needs the following information:

DATA REQUEST

73. Please provide a noise analysis for each of the periods described above in Table DR-73, showing the resultant noise levels at noise sensitive receptors M-1 through M-4. Please provide the results in terms of L_{eq} , L_{10} , L_{50} , L_{90} , L_{min} , and L_{max} .

Response: Applicant reiterates and incorporates by reference its objection to this Data Request, as set forth in the Applicant’s January 9, 2013, correspondence to Felicia Miller and the Siting Committee.

Public Health (74–77)

BACKGROUND

In Applicant's Data Adequacy Supplement, a screening construction health risk assessment for diesel particulate matter was conducted to assess the potential impacts associated with diesel emissions during the construction and demolition activities at HBEP. The results of the analysis are contained in the revised AFC Section 5.9, Public Health, and Appendix 5.9B. This screening health risk assessment was conducted based on the annual average emissions of diesel particulate matter (PM). The incremental increases in cancer risk were estimated by multiplying the predicted annual diesel PM concentration by the Office of Environmental Health Hazard Assessment (OEHHA) inhalation unit risk factor of $3.0E-04 (\mu\text{g}/\text{m}^3)^{-1}$ and adjusting the predicted results to a 9-year exposure duration to more closely reflect the exposure duration associated with construction activities (OEHHA, 2003, p. 8-3). The cancer unit risk value for the assumed 9-year exposure is $3.857E-5^1 (\mu\text{g}/\text{m}^3)^{-1}$ when interpolated from the unit risk value for a 70-year exposure. Based on applicant's analysis, the predicted incremental increases in cancer risk at the Maximally Exposed Individual Resident (MEIR) and Maximally Exposed Individual Worker (MEIW) associated with construction activities are 9.2 in a million and 3.9 in a million, respectively.

Data requests 74 and 75 were requested verbally at the Data Response Workshop held on November 14, 2012.

DATA REQUEST

74. In Table 5.98.1, the construction period screening level risk at Point of Maximum Impact (PMI) is 41.5 in a million (listed as $4.15E+1$ per million in the table). Any result greater than 10 in a million is potentially significant and needs to be evaluated further. Please explain why the applicant did not evaluate this significant result and discuss how the applicant intends to use mitigation measures to reduce the cancer risk to a level of less than significant during construction.

Response: As noted in the Applicant's January 9, 2013, correspondence to Felicia Miller and the Siting Committee, the Applicant will be providing a response to this request on or before February 15, 2013.

DATA REQUEST

75. Please refine the construction period health risk assessment at PMI sufficiently to reduce impacts to less than significant or apply sufficient mitigation measures to reduce the risks to less than 10 in a million and redo the health risk assessment analysis.

Response: As noted in the Applicant's January 9, 2013, correspondence to Felicia Miller and the Siting Committee, the Applicant will be providing a response to this request on or before February 15, 2013.

DATA REQUEST

76. If the results of any health risk assessment results in a health risk of greater than 10 in a million, please provide a map containing health risk isopleths, including an isopleth showing the risk value of 10 in a million.

Response: As noted in the Applicant's January 9, 2013, correspondence to Felicia Miller and the Siting Committee, the Applicant will be providing a response to this request on or before February 15, 2013.

¹ The cancer unit risk for a 9-year exposure was calculated using the following interpolation formula:

The cancer unit risk for a 9-year exposure = The cancer unit risk for a 70-year exposure \times 9 years/70 years Adjustment Factor = $3 \times 10^{-4} \times 0.129 = 3.857 \times 10^{-5}$.

DATA REQUEST

77. The applicant conducted a simple interpolation to get the cancer unit risk for a 9-year exposure (i.e. $3.857E-5$ $(\mu\text{g}/\text{m}^3)^{-1}$). However, by following the method described in the Air Resources Board's (ARB's) Hotspots Analysis Reporting Program (HARP) How-To Guide, under Topic 8: How to Perform Health Analyses Using a Ground-Level Concentration, Part B: Performing a Stochastic Risk Analysis for a Single Receptor Without A Dispersion Analysis, staff obtained a higher cancer unit risk than the value reported by the applicant, resulting in higher predicted incremental increases in cancer risk at the maximally exposed individual residence (MEIR) and above the significance level. Staff believes it is more reasonable to use the methodology following the ARB's HARP How-To Guide than the simple interpolation approach used by the applicant. Please provide a revised analysis using the ARB's HARP How-to Guide or provide evidence to justify usage of the simple interpolation method rather than the ARB's HARP method to determine the cancer unit risk for a 9-year exposure from the one for a 70-year exposure.

Response: As noted in the Applicant's January 9, 2013, correspondence to Felicia Miller and the Siting Committee, the Applicant will be providing a response to this request on or before February 15, 2013.

Socioeconomics (78–79)

BACKGROUND

The HBEP AFC presents estimates of the employment and labor income effects of the proposed project generated using the IMPLAN economic impact software. To assess the reliability of the reported economic impact estimates, staff requires a complete project budget for demolition, construction, and operation, as well as a clear explanation of the assumptions and input values used in the IMPLAN economic model. Where appropriate, the applicant may submit this information with a request for confidentiality.

DATA REQUEST

78. Please provide a complete project budget for demolition, construction and operation that identifies all major expenditures on labor, equipment, and materials. In particular, staff is interested in costs associated with facilities demolition and construction versus the purchase and installation costs associated with the natural gas power blocks (e.g. fired engines and associated systems). Labor cost estimates should include associated employment numbers reported in job-years.² Where possible, please differentiate expenditures based on project phase, including the demolition of unit 5 and the east fuel oil storage tank, construction of block 1, demolition of units 3 and 4, construction of block 2, and demolition of units 1 and 2. Also, identify and rationalize what percent each line-item expenditure would be made within Orange County and within the Los Angeles Metropolitan Statistical Area (MSA).

Response: Applicant reiterates and incorporates by reference its objection to this Data Request, as set forth in the Applicant’s January 9, 2013, correspondence to Felicia Miller and the Siting Committee.

DATA REQUEST

79. Please provide a complete description of the input values and other assumptions used in the IMPLAN economic model for demolition, construction, and operation. Completeness will be evaluated based on staff’s ability to recreate the applicant’s findings using the information provided. This should include, at minimum, identification of the applicable event types, IMPLAN industry sectors, model input values (i.e. total industry sales, employment, employee compensation, proprietor income), event years, and local purchase percentages. Also, please identify the vintage and geographic extent of the IMPLAN data used in the analysis.

Response: The assumptions and estimates used to estimate the regional economic impacts during the construction and operational phase of the project are provided in sections 5.10.3.5.5 and 5.10.3.4.4, respectively, of the AFC. The annual construction expenditures on materials were run through Sector 323, Building Material and Garden Supply, while the disposable portion of the construction payroll was run through as household income change using the household consumption patterns of the \$50,000 to \$75,000 household. The annual O&M expenditures were run through Sector 31, Electric Power Generation, Transmission, and Distribution while the annual O&M payroll were run through as household income change, again using the household consumption patterns of the \$50,000 to \$75,000 household. The annual expenditures on materials and the annual disposable portion of payroll were run through as one scenario and the results are those summarized in AFC sections 5.10.3.5.5 and 5.10.3.4.4. The local portions of the expenditures were identified in AFC sections 5.10.3.3.4 and 5.10.3.4.4. IMPLAN version 3.0 and the 2010 Orange County data were used in the analysis.

² One job-year is the equivalent of one full-time job held for a period of one year. For example, this could equal one full-time job held for 12 months, two full-time jobs held for six months, three full-time jobs held for four months, or two half-time jobs held for one-year, and so on.

Soil and Water Resources (80–86)

BACKGROUND

Section 5.14.1.2.2 states that “wastewater generated during HBEP construction will include ... water from excavation dewatering during construction (if dewatering is required). Depending on the chemical quality of these wastewaters, they could be classified as hazardous or nonhazardous.”

The Phase I ESA states that “Groundwater underlying the site is known to be impacted by metals, VOCs and 1,4-dioxane. Groundwater is monitored as part of on-going subsurface investigations regarding former Southern California Edison operations at the site including former operation of waste-water retention basins. These investigations are currently overseen by the Department of Toxic Substances Control. The presence of groundwater contamination represents a *Recognized Environmental Condition* in connection with the site.”

Staff is concerned that pumping of contaminated groundwater could result in significant impacts to on and offsite water resources or sensitive environmental receptors. The applicant did not provide a discussion of how contaminated groundwater would be discharged, what volumes may be expected, and how hazardous it could be to the environment.

DATA REQUEST

80. Please provide an estimate of the range of dewatering volumes necessary during demolition or construction of the proposed HBEP.

Response: As noted in the Applicant’s January 9, 2013, correspondence to Felicia Miller and the Siting Committee, the Applicant will be providing a response to this request on or before February 15, 2013.

DATA REQUEST

81. Please provide information showing what the estimated hazardous chemical concentrations would be in the groundwater generated from dewatering.

Response: As noted in the Applicant’s January 9, 2013, correspondence to Felicia Miller and the Siting Committee, the Applicant will be providing a response to this request on or before February 15, 2013.

DATA REQUEST

82. Please discuss whether the groundwater dewatering could result in movement of contaminated groundwater offsite and impact groundwater quality or other sensitive receptors such as salt marsh habitat.

Response: As noted in the Applicant’s January 9, 2013, correspondence to Felicia Miller and the Siting Committee, the Applicant will be providing a response to this request on or before February 15, 2013.

DATA REQUEST

83. Please discuss whether dewatering could further degrade groundwater quality on-site.

Response: As noted in the Applicant's January 9, 2013, correspondence to Felicia Miller and the Siting Committee, the Applicant will be providing a response to this request on or before February 15, 2013.

DATA REQUEST

84. Please discuss whether the applicant has coordinated with the appropriate state or local agency that would otherwise regulate the groundwater pumping and discharge if not for the in-lieu permit authority of the Energy Commission.

Response: No groundwater pumping would occur as part of the HBEP; therefore, no agencies have been contacted regarding groundwater pumping.

Dewatering, however, may occur during construction as explained in prior data responses (see Applicant's responses to DR32 – Biological Resources, and DR35 – Cultural Resources). Dewatering is regulated under the federal Clean Water Act, and any discharges associated therewith would be permitted by the Santa Ana Regional Water Quality Control Board under the regional general permit for low-threat discharges (Order No. 2003-0061/NPDES No. CAG998001).

DATA REQUEST

85. Please explain where hazardous water could be accepted for disposal.

Response: If water from HBEP construction activities is determined to exceed the pollutant thresholds for the regional general permit for low-threat discharges, then the permit could not be used and an alternative disposal method would be developed. In this event, Applicant anticipates that water would be stored onsite (e.g., in Baker tanks), and the Applicant or its representative would contract with a State of California licensed waste hauler to remove the contaminated water. The location where the contaminated water could be accepted for disposal would be at the sole discretion of the waste hauler; however, Applicant is aware of the DeMenno/Kerdoon facility in Compton, California, which is a permitted wastewater treatment and liquid hazardous waste recycling facility.

DATA REQUEST

86. Please explain where non-hazardous water could be accepted for disposal (offsite), or discharged (onsite).

Response: If water from construction activities is determined to be within the pollutant thresholds of the Santa Ana Regional Water Quality Control Board's regional general permit for low-threat discharges, such water from construction activities would be disposed of consistent with the permit. At this time, the Applicant assumes that if HBEP requires removal of water from excavation areas, any such water could be discharged to the existing onsite permitted retention basin at the Huntington Beach Generating Station. If this solution for construction dewatering is problematic from an organizational or institutional perspective, then the Applicant would contract with a licensed waste hauler for offsite disposal.

Traffic and Transportation (87–94)

Plume Velocity Analysis

BACKGROUND

Staff plans to perform a plume velocity modeling analysis for the gas turbines and air cooled condensers. Staff requires operating information of the air cooled condensers to complete this analysis.

DATA REQUEST

87. Please summarize the operating conditions for the air cooled condensers, including heat rejection, exhaust temperature, and exhaust velocity. Please provide values to complete the table, and additional data as necessary for staff to determine how the heat rejection load varies with ambient conditions and also determine at what ambient conditions air cooled condenser cells may be shut down, and for staff to model the thermal plume. The ambient conditions included in this table correspond to those in AFC Table 5.1 B.2 for gas turbines.

Parameter	Air Cooled Condenser					
	Number of Cells					
Cell Height						
Cell Diameter						
Ambient Temperature	32°F		65.8°F		110°F	
Ambient Relative Humidity	86.72%		58.32%		7.95%	
Duct Firing	Yes	No	Yes	No	Yes	No
Number of Cells in Operation						
Heat Rejection (MW/hr)						
Exhaust Temperature (°F)						
Exhaust Velocity (ft/s)						
Exhaust Flow Rate (lb/hr)						

The AFC Traffic and Transportation provides no discussion of potential plume impacts or analysis of plume velocity, heat dispersal, or other plume characteristics that might contribute to low altitude turbulence. Analyses of the velocity, shape, and dispersal of the exhaust plumes are necessary for staff to determine the potential impact of plumes generated by the HBEP on aircraft flying in the immediate vicinity of the project. City-owned light aircraft are regularly observed flying at low altitude in the vicinity of the project and may be affected by exhaust plumes generated by the project.

Response: Tables DR87-1 and DR87-2 provide the operating parameters for the HBEP air-cooled condensers (ACC) responding to this Data Request. Please note that in the Applicant’s January 9, 2013, letter to Felicia Miller and the Siting Committee, the Applicant requested an extension to February 15, 2013, to provide the information sought by this Data Request; however, the Applicant was in fact able to develop the requested data in a shorter timeframe and submits the requested information as part of this set of Data Responses.

TABLE DR87-1

Block 1 Air-cooled Condenser

Block 1 ACC 3x1, Full Load			
Number of Cells	15		
Cell Height	104 feet from ground level		
Cell Diameter	36 feet		
Ambient Temperature	32°F	65.8°F	110°F
Ambient Relative Humidity	86.72%	58.32%	7.95%
Duct Firing	No	No	No
Evaporative Cooler	Off	On	On
LPT Exhaust Mass Flow kpph	1070	1077.6	1095.6
LPT Exhaust after Enthalpy BTU/lb	1014	1020.1	1064.9
ACC Number of Cells in Operation	13	15	15
ACC Heat Rejection (MW)	298	290	294
ACC Exhaust Temperature (°F)	86	116.5	167
ACC Exhaust Velocity (ft/s)	11.7	13.1	12.7
ACC Exhaust Flow Rate kpph	77,000	81,000	72,400

TABLE DR87-2

Block 2 Air-cooled Condenser

Block 2 ACC, 3x1 Full load			
Number of Cells	15		
Cell Height	104 feet from ground level		
Cell Diameter	36 feet		
Ambient Temperature	32°F	65.8°F	110°F
Ambient Relative Humidity	86.72%	58.32%	7.95%
Duct Firing	No	No	No
Evap Cooler	Off	On	On
LPT Exhaust Mass Flow kpph	1076.6	1082.7	1095.7
LPT Exhaust Enthalpy BTU/lb	993.7	1000.1	1069.2
ACC Number of Cells in Operation	10	15	15
ACC Heat Rejection (MW)	286	288	299
ACC Exhaust Temperature (°F)	86	104	155
ACC Exhaust Velocity (ft/s)	11.4	17.2	16.7
ACC Exhaust Flow Rate kpph	75,100	105,600	94,600

Heavy Haul Route Overnight Parking

BACKGROUND

The AFC Traffic and Transportation analysis states the HBEP would require heavy/oversized components which would be transported by truck from the Port of Long Beach to the AES Alamitos Generating Station (AGS) off-site construction laydown area, and then transported to HBEP as depicted on AFC Figure 5.12-3 (Heavy Haul Route). (Pages 5.12-1, 2 and 5.12-13). The Heavy Haul Transportation Survey Summary (Appendix 5.12B) indicates that the potential route would require a two-night move.

DATA REQUEST

88. Please identify potential overnight parking areas for the heavy haul equipment and submit documentation allowing heavy/oversized load parking at these areas.

Response: In response to the Staff's Background discussion above, Applicant notes that each of the deliveries of heavy/oversize components of the project from the Port of Long Beach to HBEP is expected to be accomplished in one night (10:00 p.m. to 4:00 a.m.) rather than requiring two nights per delivery. The distance from the Port of Long Beach to HBEP is approximately 25 to 30 miles depending on which pier a shipment arrives. During the 6-hour night move period (10:00 p.m. to 4:00 a.m.), an average speed of 4 to 5 miles per hour will allow the deliveries to be accomplished in one night rather than two. However, it is important to note that a more typical average speed for heavy/oversize loads is in the range of 10 to 15 miles per hour; therefore, the expectation of one night (10:00 p.m. to 4:00 a.m.) deliveries from the Port of Long Beach to HBEP is high.

Notwithstanding the expectation of a one night move per delivery, the offsite construction laydown area at the AES Alamitos Generating Station, located approximately midway between the Port of Long Beach and HBEP along the heavy/oversize route to HBEP, is included as part of the project and is addressed in the AFC. Therefore, there is no requirement to identify other potential overnight parking areas for heavy/oversize loads.

As a point of clarification, while the AFC generically refers to heavy/oversize deliveries, the HBEP loads in this category are more correctly classified as oversize loads rather than heavy loads.

Demolition Heavy Haul

BACKGROUND

The AFC Traffic and Transportation analysis identifies heavy/oversized loads for project construction, but makes no mention of anticipated heavy/oversized loads associated with the demolition and removal of the existing equipment.

DATA REQUEST

89. Please clarify if any heavy/oversized loads are required as part of the demolition phase of the project. If heavy/oversized loads are required for demolition, please identify the expected number of loads and expected routes.

Response: No heavy/oversize loads are anticipated for the demolition phase of the project.

Alternate Heavy Haul Routes

BACKGROUND

Project construction is estimated to require 112 heavy/oversized loads with approximately 3 loads on any given night. (HBEP Data Responses Set 1A). The AFC anticipates these loads would be dispersed throughout the project construction/demolition phase which is expected to occur from 2014 through 2022. Energy Commission staff is

concerned that the route would require extensive utility work through constrained intersections in heavily traveled beach communities.

DATA REQUEST

90. Please identify alternate laydown areas located in the vicinity of the project area of sufficient size to accommodate the 16-acre laydown area which was the required acreage size at the AGS site.

Response: Given the limited space available at HBEP and the requirement that existing Units 1 and 2 at the Huntington Beach Generating Station will remain in operation during the phased construction of HBEP Block 1 and Block 2, construction of HBEP will generally rely upon “just in time delivery” of major components of Block 1 and Block 2. Under “just in time delivery,” major components of the HBEP power blocks will be delivered to the site and lifted from the truck trailer and put directly into place, thereby minimizing the need to temporarily store major components onsite at HBEP.

As discussed in response to Data Request 88, the heavy/oversize components for the project will be transported by ship to the Port of Long Beach. From the Port, truck transport of these components to HBEP is required. Thus, the same number of heavy/oversize loads will travel to HBEP whether the construction laydown area is located at the Alamitos Generating Station, as proposed in the AFC, or if an alternative laydown area in the vicinity of HBEP is utilized. Because an alternative laydown area in the vicinity of HBEP would not result in a reduction of a significant impact, there is no need to consider an alternative laydown area other than the laydown at the Alamitos Generating Station as proposed and analyzed by the Applicant in the AFC.

DATA REQUEST

91. Please provide an analysis of alternate delivery methods for the required heavy/ oversized loads. Attached with this data request is a rendering of an alternate delivery method proposed for the El Segundo Redevelopment Project, although never implemented by the applicant.

Response: Applicant reiterates and incorporates by reference its objection to this Data Request, as set forth in the Applicant’s January 9, 2013, correspondence to Felicia Miller and the Siting Committee.

Existing Conditions at Intersections

BACKGROUND

The AFC Traffic and Transportation analysis studied the following intersections in the project area to determine existing PM peak hour conditions (AFC, Section 5.12.1.3.2):

- Beach Boulevard and Pacific Coast Highway (PCH) (signalized)
- Newland Street and PCH (signalized)
- Newland Street and Hamilton Avenue (signalized)
- Brookhurst Street and PCH (signalized)

The Highway Capacity Manual (HCM) was used to determine the intersection Level of Service (LOS) and is summarized in Table 5.12-5.

The City of Huntington Beach recent traffic study indicates the AM peak hour is a critical period of traffic at the studied intersections. The City requests the traffic AM peak hour should be included as part of the analysis (City of Huntington Beach- Beach Boulevard and Edinger Avenue Corridor Specific Plan- Traffic Study, August 2009) (City of Huntington Beach Letter, 12-6-2012, Comment #7, TN #68804).

The City submitted a letter to Energy Commission staff requesting that the intersection analysis should include Magnolia Street and PCH. (City of Huntington Beach Letter, 12-6-2012, Comment #8, TN #68804). Energy Commission staff agrees that the Magnolia/PCH intersection should be included as part of the analysis. The City of Huntington Beach Circulation Element in the General Plan identifies Magnolia Street as a Primary Arterial and one

of the primary north/south streets from the San Diego (I-405) Freeway which provides regional access to the City of Huntington Beach.

The City conducted an LOS Analysis and determined the PM peak hour average control delay at Beach Boulevard/PCH, Newland Street/PCH, and Brookhurst Street/PCH are 25.5, 16.9, and 31.2 seconds, respectively (City of Huntington Beach- Beach Boulevard and Edinger Avenue Corridor Specific Plan- Traffic Study, August 2009) (City of Huntington Beach Letter, 12-6-2012, Comment #9, TN #68804).

DATA REQUEST

92. Please include the AM peak hour in the intersection analysis and amend the Existing Intersection LOS Summary Table 5.12-5 and the Construction Intersection LOS Summary Table 5.12-8.

Response: As noted in the Applicant's January 9, 2013, correspondence to Felicia Miller and the Siting Committee, the Applicant will be providing a response to this request on or before February 15, 2013.

DATA REQUEST

93. Please include PCH and Magnolia Street in the intersection analysis and amend Table 5.12-5 as reflected in the City of Huntington Beach LOS analysis.

Response: As noted in the Applicant's January 9, 2013, correspondence to Felicia Miller and the Siting Committee, the Applicant will be providing a response to this request on or before February 15, 2013.

DATA REQUEST

94. Please provide data worksheets and calculations for the existing intersection conditions analysis and clarification of the discrepancy between the PM Peak Hour Delays of the studied intersections in Table 5.12-5 of the AFC and the PM Peak Hour Delay in the Huntington Beach Traffic study.

Response: As noted in the Applicant's January 9, 2013, correspondence to Felicia Miller and the Siting Committee, the Applicant will be providing a response to this request on or before February 15, 2013.

Visual Resources (95–98)

BACKGROUND

Section 5.13.1.4 of the AFC, “Sensitive Viewing Areas and Key Observation Points,” describes selection of five key observation points (KOPs) based on a viewshed analysis to identify where project facilities could be visible from areas of high visual sensitivity. Viewer concern is described as high for scenic areas or travel corridors. As discussed in the AFC, other factors considered in an assessment of existing visual conditions include visibility of an object (e.g., the HBEP site), number of viewers, and duration of view.

The City of Huntington Beach General Plan designates the segment of the Pacific Coast Highway (PCH) through its planning area as a “major urban scenic corridor.” The Circulation Element of the City’s General Plan includes policies on maintaining and enhancing the visual quality and scenic views along designated scenic corridors (City of Huntington Beach 1996a). The Urban Design Element includes objectives and policies to avoid visual impairment of the City’s coastal corridors and entry nodes (City of Huntington Beach 1996b).

Section 5.12.1.1.2 of the AFC, “Pacific Coast Highway (State Highway 1),” states that “traffic volumes along PCH in the vicinity of the HBEP site average from 33,000 to 42,000 vehicles per day.” Similar to the existing Huntington Beach Generating Station, the proposed project would be highly visible from the PCH for southbound and northbound motorists. Staff observes that the AFC does not include a KOP from anywhere along the PCH to represent views for motorists from this coastal highway. Considering the high traffic volume and predicted high viewer concern for views along the coast, a view from the PCH is necessary to adequately assess the potential effects of the proposed project on visual resources.

Sources:

City of Huntington Beach. 1996a. City of Huntington Beach General Plan. Circulation Element. Pages III-CE-26 to 30. Available: <<http://www.huntingtonbeachca.gov/Government/Departments/Planning/gp/index.cfm>>. Accessed November 30, 2012.

City of Huntington Beach. 1996b. City of Huntington Beach General Plan. Urban Design Element. Pages II-UD-3 to 7, 9, 10, 15, 16, and 27. Available: <<http://www.huntingtonbeachca.gov/Government/Departments/Planning/gp/index.cfm>>. Accessed November 28, 2012.

DATA REQUEST

95. Please prepare and submit a new KOP from the PCH to evaluate the potential visual effects of the proposed project on highway motorists. As depicted in Visual Resources – Figure 1 (attached), this KOP should be located to show the clearest possible view of the HBEP site from northbound PCH at Brookhurst Street, which is identified by the City of Huntington Beach as a gateway and entry node to the city. A photograph showing existing visual conditions and a visual simulation should be prepared and submitted for the new KOP in the same format as the other KOPs in the AFC for the proposed project.

Response: In response to this request, a field visit was made to PCH at Brookhurst Street to identify a view that would be representative of views seen by northbound motorists. Based on careful observation and evaluation of the views from the northbound lanes of PCH toward the project site from this area, a decision was made to use a view from PCH at a point just north of the intersection with Brookhurst Street. Consideration was given to northbound views on PCH from the segment south of Brookhurst Street, but views from south of Brookhurst Street were found to be unsuitable for use in preparing the simulation requested because of the overhead structure that extends out over PCH to support signs and traffic signals. This structure and the signs and traffic signals attached to it clutter the view and, from some angles, interfere with views toward the HBEP site. The

selected view north of Brookhurst is unobstructed and free of the visual distractions that the overhead structure and the signs and signals it supports create.

Images of both the existing and simulated with-project views from PCH just north of Brookhurst Street are presented on Figure DR95-1. Review of these images and comparison of the simulated with-project view with the existing view indicate that with the implementation of the proposed project, there will be a noticeable improvement in the view from northbound PCH just north of Brookhurst Street. The tall stack and power plant structure of the existing Huntington Beach Generating Station that are so prominently visible in the cone of vision of northbound travelers will be removed. They will be replaced with HBEP (with Power Block 2 primarily visible), which will consist of an assemblage that is lower than what is on that portion of the site now, and is set back further from the PCH. This placement and the reduction in height and mass will reduce the obstruction of the view of the sky and will open up views toward structures that front PCH to the north.

Although HBEP will have stacks, these stacks will appear to be somewhat similar in height to HBEP's other elements and, because the HBEP stacks will tend to blend in with the overall mass of HBEP, the stacks will not attract attention as distinct visual elements. New Power Block 1 will be visible at the right side of this view, adding an assemblage of power generation facilities to a portion of the viewpoint in which large tanks and transmission structures are now visible. Power Block 1 will appear as a low and generally compact mass. Because of its location outside of the primary cone of vision of travelers on northbound PCH, its location in a portion of the view that is already occupied by large energy-related facilities, its low height and compact mass, and the partial screening provided by the chain link fence along PCH, Power Block 1 will not have a substantial adverse effect on this view.

On balance, taking into account the quite noticeable improvement in the view created by development of HBEP Power Block 2 and the modest level of visual impact that might be attributable to HBEP Power Block 1, overall, the impact of the project on this view will be positive.

BACKGROUND

Figure 5.13-1b of the AFC, "Project Viewshed," shows the viewpoints, KOP locations, and values (i.e., comparative visibility of proposed HBEP structures) for the project viewshed. An extensive area northwest of the HBEP site is part of a larger area with the highest viewshed value; five or six of the project stacks could potentially be visible from this area, which is developed with residential uses. The elevation increases gradually northwest of the project site and continues to increase beyond the 1-mile visual sphere of influence (VSOI) shown on Figure 5.13-1b to a group of ridgelines. These ridgelines correspond to the lower edge of the "bluff areas" shown in the Coastal Element of the City's General Plan (City of Huntington Beach 2011, Figure C-17). The Coastal Element includes objectives and policies addressing protection of the scenic and visual qualities of resources, including preservation of public views to and from the bluffs. Staff confirmed during a December 2012 site visit that the Huntington Beach Generating Station is potentially visible from the area northwest of the site. Staff directly observed that the project site is clearly visible from the residential area along Frankfort Avenue near Hill Street, which is about 1½ miles from the HBEP site.

City of Huntington Beach. 2011. *City of Huntington Beach General Plan*. Coastal Element. Adopted by the Huntington Beach City Council November 15, 1999; certified by the California Coastal Commission June 14, 2001; became effective November 13, 2001; reflects amendments through October 26, 2011. Pages IV-C-64, 67, 69, 80 to 82, 118 to 122, 131, and 135. Available: <<http://www.huntingtonbeachca.gov/Government/Departments/Planning/gp/index.cfm>>. Accessed November 28, 2012.

DATA REQUEST

96. Please prepare and submit a new KOP from Frankfort Avenue depicting the potential visual effects of the proposed project on residents northwest of the HBEP site. Visual Resources – Figure 1 shows a viewpoint from Frankfort Avenue. Staff requests that the selected viewpoint for this KOP show the clearest possible view of the HBEP site from the north side of Frankfort Avenue near Hill Street

or the entrance to the Huntington Shorecliffs Mobile Home Park. A photograph showing existing visual conditions and a visual simulation should be prepared and submitted for the new KOP in the same format as the other KOPs in the AFC for the proposed project.

Response: In response to this request, a field visit was made to Frankfort Avenue. Based on careful observation and evaluation of the views toward the project site from this area, a decision was made to use the view from Frankfort Avenue at the entrance to the Huntington Shorecliffs Mobile Home Park as the basis for preparing the requested simulation. This view is representative of the class of views from the Frankfort Avenue area, and because it is seen in the middle of the cone of vision of those entering the mobile home community, it has a high level of exposure.

Images of both the existing and simulated with-project views from Frankfort Avenue at the entrance to the Huntington Shorecliffs Mobile Home Park are presented on Figure DR96-1. Review of these images and comparison of the simulated with-project view with the existing view indicate that with the implementation of the proposed project, there will be a noticeable improvement in the view. The two tall stacks and the large power block structures of the existing Huntington Beach Generating Station will be removed, and will be replaced by HBEP stacks and structures that are considerably lower. Because the new HBEP structures will appear no taller than the palm trees on the distant skyline, the HBEP structures will have a high degree of visual integration into the view, resulting in a relatively low level of visual contrast.

BACKGROUND

The project applicant submitted a supplemental data response to data request #68 (TN #68849), which includes Figure 5.13-1a R2, "Project Site and Locations of Viewpoints and KOPs," and Figure 5.13-1b R2, "Project Viewshed." Staff intends to use these figures in the preliminary staff assessment, but with an altered VSOI area.

DATA REQUEST

97. Please provide the geographic information system shape files for the corrected versions of Figures 5.13-1a and 5.13-1b.

Response: The data requested are provided on the attached disc, which includes the following files:

HB_Generating_Station.shp: Includes both Offsite Construction Laydown Area at AGS and AES Huntington Beach Generating Station

HB_Generating_Station_details.shp: Includes Onsite/offsite Parking,

Key Observation Point and Viewpoint.pdf: KOP_VP.shp

Buffer_Half_Miile_HB_Project_Site.shp: 0.5-Mile Radius From Project Site

Buffer_Miile_HB_Project_Site.shp: 1-Mile Radius From Project Site

Buffer_2HalfMiiles_HB_Project_Site.pdf: 2.5-Mile Radius From Project Site

Buffer_3Miiles_HB_Project_Site.pdf: 3.0-Mile Radius From Project Site

Huntington_ZVI.gdb/ZVI_050812: shows the number of stacks that will be visible (Use the Value field 0=No stacks/0-2 = 1 or 2 stacks/2-4 = 3 or 4 stacks/4-6= 5 or 6 stacks)

BACKGROUND

Section 5.13.4 of the AFC, "Mitigation Measures," states that the proposed project "would slightly increase the overall visual quality. Therefore, the project will not result in a significant visual impact and visual resource mitigation measures are not required for HBEP because the visual impacts are at a less-than-significant level." Staff does not consider this to be a valid conclusion given the location of the proposed HBEP in the Coastal Zone; the high visual sensitivity of the project area in general; and the many local and state laws, ordinances, regulations, and standards (LORS) intended to protect and enhance visual resources in the Coastal Zone. Section 30001.5 of the California Coastal Act of 1976 includes a declaration to "protect, maintain, and where feasible, enhance and restore the overall quality of the coastal zone environment and its natural and artificial resources."

Section 5.13.2.5 of the AFC, “Impact Significance,” states that “the presence of the Huntington Beach Generating Station is already considered [to] be a visual issue in the Coastal Zone of the City of Huntington Beach. The project will represent a slight improvement over the existing visual quality of the project area ...” This subsection of the AFC concludes that “the project’s visual impacts will be generally positive and less than significant.” The project applicant’s analysis implies that an existing *visual issue* at the project site would persist with construction and operation of HBEP. The visual issue is the existence of an enormous power plant on the state’s coastline in an area that is otherwise primarily developed with residential, recreational, open space, and tourist-oriented uses. No basis is provided in applicable LORS to conclude that a new, visually prominent, electrical power plant would not be subject to requirements to improve visual quality in the Coastal Zone. Slight improvements to visual quality from installation of new, massive equipment with an industrial character would not substitute for implementation of mitigation measures to reduce potential impacts on visual resources and ensure compliance with LORS pertaining to new development in the Coastal Zone.

Staff has reviewed LORS administered by the City of Huntington Beach and preliminarily identified those that are applicable to the proposed project for protection and enhancement of visual resources and the aesthetic environment. Staff has also reviewed the *City of Huntington Beach Comments Regarding Huntington Beach Energy Project* (TN #68804), which states that “the extremely important view of the energy facility from valuable coastal resources requires improvement.” City staff agrees that the modern components and new facilities under the proposed project would be a “general improvement,” but also states that “it is significant that the four units and two towers are being replaced by two large power blocks and six towers with no additional screening, landscaping, or unique architectural treatment ...”

Section 5.13.5.1.1 of the AFC, “California Coastal Act,” cites Section 30251 of the law, which states, in part: “Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas.”

Energy Commission staff is addressing the environmental effects of expanding, retooling, and modernizing other existing, decades-old power plants in the state’s coastal areas, including the El Segundo Power Redevelopment Project (00-AFC-14) along the Santa Monica Bay coastline. Approved visual resources conditions of certification for that project have included preparation of a Comprehensive Visual Enhancement Plan to address architectural treatment, landscape plantings, surface treatment, lighting, and other measures to enhance public views of the facility.

The project applicant has not yet proposed any mitigation measures to restore or enhance visual quality at the HBEP site, and assuming none are needed would be inconsistent with the intent of applicable state and local LORS. Staff needs to determine what mitigation measures may be feasible to reduce visual impacts of the HBEP site and achieve consistency with LORS.

DATA REQUEST

98. Please prepare and submit a concept for a visual enhancement plan consistent with LORS for protection and enhancement of visual and aesthetic resources. The conceptual plan should include, at a minimum, proposals for screening facilities from public viewing areas (e.g., Huntington State Beach, the PCH, and Magnolia Marsh) during project construction and operation and improving views of project features and structures. Please discuss potential colors, methods, and architectural screening concepts that could achieve a degree of visual harmony with the proposed project’s location in the Coastal Zone. Staff requests that the conceptual plan address these potential site and facility improvements for screening and enhancing public views of the site:
 - A. Screening of the HBEP site during project construction phases, including suggested screening materials and heights of screening fences.

- B. Permanent decorative wall to replace the chain-link fence along the HBEP site perimeter, including suggested construction materials and wall height.³
- C. Potential locations to enhance existing landscape plantings and install new plantings.
- D. Potential alternatives to painting power plant structures, “flat gray,” as specified in Table 5.13-1. The visual quality of bulky, geometric industrial-type structures is not necessarily improved by painting the conglomerated structures in the same continuous color of flat gray. The visibility of such structures would not necessarily be reduced.
- E. Architectural screening of all prominent industrial equipment that would be visible from public viewing areas, including suggestions for types of screening that could be available to enhance the visual appearance of the equipment (e.g., panels, unique metal screen or mesh façade, louvers, etc.).

Response: Applicant reiterates and incorporates by reference its objection to this Data Request, as set forth in the Applicant’s January 9, 2013, correspondence to Felicia Miller and the Siting Committee.

³ Because of the multi-year construction phases that would be required for HBEP, installation of a permanent or semi-permanent visual screening wall could be necessary prior to site mobilization along portions of the site boundary near visually sensitive land uses (e.g., Magnolia Marsh).



A. Existing view looking northwest along Pacific Coast Highway at Brookhurst Street.



B. Simulated view looking northwest along Pacific Coast Highway at Brookhurst Street that depicts the appearance of the view after completion of the project.

FIGURE DR95-1
View from Pacific Coast Highway
at Brookhurst Street

AES Huntington Beach Energy Project
Huntington Beach, California



A. Existing view looking southeast toward the project site from Frankfort Avenue at the entrance to the Huntington Shorecliffs residential community.



B. Simulated view looking southeast toward project site from Frankfort Avenue at the entrance to the Huntington Shorecliffs residential community that depicts the appearance of the view after completion of the project.

FIGURE DR96-1
View from Pacific Coast Highway
at Frankfort Avenue

AES Huntington Beach Energy Project
 Huntington Beach, California