

CALIFORNIA ENERGY COMMISSION

1516 NINTH STREET
SACRAMENTO, CA 95814-5512



October 10, 2001

Todd Stewart, LECEF Project Manager
4160 Dublin Boulevard
Dublin, CA 94588

Dear Mr. Stewart:

**LOS ESTEROS CRITICAL ENERGY FACILITY POWER PROJECT
(01-AFC-12) DATA REQUESTS**

Pursuant to Title 20, California Code of Regulations, section 1716, the California Energy Commission (Energy Commission) staffs requests that the Calpine c* Power supply the information specified in the enclosed data requests.

The subject areas addressed in the 28 attached data requests, numbered 119 through 146, are visual and visual plume impacts. Other data requests may be submitted at a later date. The information requested is necessary to: 1) understand the project, 2) assess whether the project will result in significant environmental effects, and 3) assess project alternatives and mitigation measures.

Written responses to the enclosed data requests are due to the Energy Commission by October 25, 2001 or at such later date as may be agreed upon by the Energy Commission staff and the applicant.

If you are unable to provide the information requested in the data requests or object to providing it, you must contact the committee assigned to the project, and the project manager, within 5 days of receiving these requests stating your reason for delay or objections.

If you have any questions regarding the enclosed data requests, please call me at (916) 651-8853.

Sincerely,

Robert Worl
Siting Project Manager

Enclosure

cc: Proof of Service 01-AFC-12
Agency Distribution List

Los Esteros Critical Energy Facility (01-AFC-12) Data Requests

Technical Area: Visual Resources

Authors: Michael Clayton, Brewster Birdsall, and Eric Knight

BACKGROUND

Staff will need to make use of the Applicant's figures presented in the AFC and supplemental filings.

DATA REQUEST

119. Please provide a CD containing electronic versions of the following figures: 2.1-1, 2.1-2, 2.2-1, 2.2-2, 8.11-1 (to be revised per Data Adequacy requirement), and 8.11-2.
120. Please provide a CD containing electronic versions of the existing figures to be revised and new figures as requested in the following Data Requests.

BACKGROUND

Figure 2.2-2 provides power plant elevation diagrams but only denotes the height of the HRSG stacks.

DATA REQUEST

121. Please identify the heights of the facilities shown in Figure 2.2-2.

BACKGROUND

Two key observation points (KOPs) were established in order to evaluate both the visual setting and the potential for project-induced visual impacts. Photographs were obtained at each KOP and presented along with visual simulations of the proposed project. Section 8.11.2.1 *Analysis Procedure* (pp. 8.11-7 and 8) states that "Visual simulations were produced to illustrate the 'after' visual conditions from each of these points, providing the viewer with a clear image of the location, scale, and visual appearance of the proposed project." However, the images presented (setting photographs as well as simulations) are substantially less than life-size scale when viewed at a standard reading/viewing distance of 18 inches. The presentation of images at such a reduced scale does not accurately represent the views that would be experienced at the KOPs because the images substantially understate the prominence of visible landscape features as well as potential visual impacts.

Also, the simulations show the HRSG stacks at their original height of 125 feet instead of the proposed 90-foot heights referenced in the Application. However, Section 2.20 *Visual Resources* of the Applicant's Responses to Data Adequacy refers to the HRSG stacks as being "80-foot high stacks..." and "...90-foot high stacks..." The simulations also do not include the 8-foot sound wall along the south and east perimeter nor any necessary transmission interconnection towers and take-off structures.

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DATA REQUEST

122. Please clarify the currently proposed HRSG stack height.
123. Please re-scale all setting and simulation images to achieve life-size scale. If re-scaling results in substantial degradation of the image, please provide new setting and simulation images at life-size scale. After obtaining appropriately scaled images, please provide photocopies of high quality 11"x17" color images of the existing views and simulations.
124. Please revise the visual simulations prepared for KOPs 1 and 2 (Figures 8.11-3B and 8.11-4B respectively) to include accurate HRSG stack heights, the 8-foot sound wall, and any necessary transmission towers and take-off structures.

BACKGROUND

Section 8.11.1.2.2 *Transmission Line Route* indicates that the 200-foot transmission line could be aboveground.

DATA REQUEST

125. Please identify the heights of required and potential electric transmission facilities including transmission line structures and take-off structures.

BACKGROUND

Section 8.11.1.2.3 *Natural Gas Line Route* states that the proposed gas line would connect to the existing PG&E gas line along the northern edge of SR 237.

DATA REQUEST

126. Please identify if a gas metering station would be required at the point of interconnection with the PG&E gas line and whether or not the metering station would be aboveground.
127. If there is to be an aboveground gas metering station, please describe the station's visual characteristics, dimensions, and visibility.

BACKGROUND

Section 8.11.1.4 *Sensitive Viewing Areas and Key Observation Points* identifies the establishment of two Key Observation Points (KOPs) – one on SR 237 and one on Zanker Road. Approximately 1.7 to 1.8 miles to the west of the proposed project site is the community of Alviso. A number of residences along Grand Boulevard presently have

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unobstructed lines of sight to the proposed project site. There are also a number of goals and policies contained in the Alviso Master Plan (AFC Table 8.11-5) that pertain to the preservation and enhancement of views and visual character outside of the village area. Staff believes that it is important to carefully evaluate the proposed project's potential visual impacts on this historic and developing community. Also, the discussion of LORS consistency with respect to the Alviso Master Plan refers to the screening provided by the U.S. DataPort project. However, staff considers the U.S. DataPort project to be highly speculative at this point in time and not an appropriate context for consideration of the Los Esteros Project.

DATA REQUEST

128. Please establish a new Key Observation Point (KOP 3) along Grand Boulevard in Alviso. The new KOP should be sited to provide an unobstructed line of sight to the proposed project site that is representative of the residential views of the project site along Grand Boulevard.
129. Please provide an evaluation of the potential visual impacts that would be experienced from this KOP. The discussion should be equivalent in detail to that provided for KOPs 1 and 2. As part of this evaluation, please provide an existing view photograph and visual simulation from the new KOP. The new images must be at "life-size scale." Please provide photocopies of high quality 11"x17" color images of the existing view and simulation.
130. In light of the speculative nature of the U.S. DataPort Project, please revise the LORS analysis with respect to the Alviso Master Plan. The consistency analysis should be based on the proposed project's intrinsic characteristics and should not assume the presence of the U.S. DataPort Project.

BACKGROUND

Section 8.11.1.4 *Sensitive Viewing Areas and Key Observation Points* also identifies the presence of "several residences" on the site that would be removed as part of the implementation of the LECEF and U.S. DataPort projects. However, Section 2.20 *Visual Resources* of the Applicant's Responses to Data Adequacy variously refers to the residences on the U.S. DataPort site as being two and then three. As previously mentioned, staff considers the U.S. DataPort project as highly speculative at this point in time and not an appropriate context for consideration of the Los Esteros Project.

DATA REQUEST

131. Please clarify the number of existing residences on the U.S. DataPort site.
132. Please clarify if all on-site residences referenced in Section 8.11.1.4 would be removed as part of the proposed project.

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133. If any residences are to remain following implementation of the proposed project, please identify the number of residents at this location and please establish an additional Key Observation Point (KOP 4) in the residential area and evaluate the potential visual impacts to these residents from the proposed project. The discussion should be equivalent in detail to that provided for KOPs 1, 2, and new KOP 3. As part of this evaluation, please provide an existing view photograph and visual simulation from the new KOP. The new images must be at "life-size scale." Please provide photocopies of high quality 11"x17" color images of the existing view and simulation.

BACKGROUND

Section 8.11.2.2.2 *Landscaping* describes the planting scheme to be implemented around the project's perimeter to provide project screening. Staff considers any project-induced visual impact extending beyond five years after completion of project construction to be a long-term visual impact.

DATA REQUEST

134. Please provide two additional visual simulations of the project landscaping as viewed from KOPs 1, 2, and 3 (and 4 if necessary for the on-site residences). One simulation should show the landscaping at five years of growth. A second simulation should show the landscaping at maturity if greater than five years. The images are not to include U.S. DataPort since that project is considered highly speculative and not an appropriate context for evaluation of the Los Esteros Project. The new images must be at "life-size scale." Please provide photocopies of high quality 11"x17" color images of the existing view and simulation.
135. If the time to landscaping maturity is greater than five years, please identify the timeframe to landscaping maturity.

BACKGROUND

Section 8.11.2.2.3 *Lighting* describes lighting control measures for project operation but does not describe the extent to which lighting would be visible from the KOPs nor is lighting during project construction discussed.

DATA REQUEST

136. Please describe existing visible night lighting at the project site and in the immediate project vicinity.
137. Please describe the extent to which nighttime lighting during project operation would be visible from each KOP.

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138. Please describe night lighting to be used during project construction and lighting control measures to be employed.

BACKGROUND

Section 8.11.3 *Assessment of Significance of Overall Visual Impacts* (pp. 8.11-13 and 14) discusses the potential visual impacts to the future Bay Trail as presently proposed. However, this discussion is presented in the visual context of the U.S. DataPort project which staff considers to be highly speculative.

DATA REQUEST

139. Please describe the potential visual impacts of the LECEF to the proposed Bay Trail and spur trail adjacent to the proposed project site. This discussion should not assume the presence of the U.S. DataPort project since that project is considered highly speculative and not an appropriate context for evaluation of the Los Esteros Project.

BACKGROUND

Section 8.11.4 *Cumulative Impacts* (p. 8.11-15) states that the proposed project would not "...create an incremental impact to visual resources that would be significant..." but does not adequately identify projects that are either under construction or approved for construction that would potentially be visible in the same field of view as the proposed project.

DATA REQUEST

140. Please provide a list of all projects either under construction or approved for construction north of SR 237, west of I-880 and east of 1st Street and Grand Boulevard in Alviso.
141. Also, please provide a map that shows the location of all cumulative projects identified in the previous data request.

BACKGROUND

The cooling towers proposed for use at the LECEF represent a potential source of visible plumes. Staff understands that the cooling towers are proposed to operate during high-ambient-temperature conditions (AFC §8.1.5.2.2) and that the potential for plume formation would be low. The AFC includes certain cell parameter data related to exhaust temperature, volumetric flow, and drift rate (AFC Table 8.1-8 and Appendix 8.1, and AFC §8.11.2.2.4); however, no operating scenarios were identified. To verify the applicant's claim of no significant visual impact (AFC §8.11.2.3.3), the operating conditions of the cooling towers should be identified in more detail.

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DATA REQUEST

- 142. Describe the operating design of the cooling towers. Identify under what ambient conditions (i.e., the minimum ambient temperature) the cooling towers would operate.
- 143. Identify the heat loads that would be handled by the cooling tower system (e.g., inlet air chiller, lube oil cooling, gas compressor cooling, etc.) and whether there would be any likelihood of the cooling tower system operating during cold-weather conditions to handle these loads.
- 144. For staff to conduct an analysis on the potential plume using the Combustion Stack Visibility Program (CSVP), please provide cooling tower operating data to fill the following table. For example, a range of ambient temperatures could be used as was in Appendix 8.1 for the turbines. The cooling tower operating conditions identified by the applicant will be used to analyze potential plume formation based on the hourly ambient conditions observed in San Jose. Therefore additional ambient conditions, if provided by the applicant, will be used to more accurately represent the cooling tower exhaust conditions.

Parameter	Cooling Tower Exhausts		
	Number of Emission Points	2 cells	
Stack Height	14.4 meters (each cell)		
Stack Diameter	9.8 meters (each cell)		
Ambient Temperature	@29°F	@59°F	@95°F
Exhaust Temperature	____ °F	____ °F	____ °F
Exhaust mass flow rate	____ lb/hr	____ lb/hr	____ lb/hr
Molecular Weight (estd)	28.8 g/g-mol		
Moisture Content (% by wt)	____ % by wt	____ % by wt	____ % by wt

BACKGROUND

There is at least one other source of visible water vapor plumes located within the viewshed of the LECEF Project. This facility, Calpine’s Agnews Cogeneration Plant, is located about one mile southeast of the LECEF site. Staff requires information about this facility and whether other sources of visible plumes are located within the viewshed.

DATA REQUEST

- 145. Please provide the normal heat rejection rate for the Agnews cooling tower annually and during the winter.
- 146. Please identify the location on Figure 8.11-1 (revised for Data Adequacy) of the Agnews facility and any other sources of visible water vapor plumes within the 3-mile radius viewshed established for the LECEF. Please also describe the characteristics (e.g., size and opacity) of any visible plumes within the project viewshed.