DOCKETED

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Document Title:	Data Requests Set 1B (Nos. 116-131) for the Mission Rock Energy Center Project, 15-AFC-02
Description:	Data Requests Set 1B are in the areas of Biological Resources and Project Description
Filer:	Mike Monasmith
Organization:	California Energy Commission
Submitter Role:	Commission Staff
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CALIFORNIA ENERGY COMMISSION
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October 6, 2014

Mitch Weinberg
Calpine Company
4160 Dublin Boulevard, Suite 100
Dublin, CA. 94568

RE: MISSION ROCK ENERGY CENTER (15-AFC-02) DATA REQUESTS, SET 1B (Nos. 116-131)

Dear Mr. Weinberg;

Pursuant to Title 20, California Code of Regulations, section 1716, the California Energy Commission staff requests the information specified in the enclosed data requests, Nos. 116-131). The information requested is necessary to: 1) more fully understand the project, 2) assess whether the facility will be constructed and operated in compliance with applicable regulations, 3) assess whether the project will result in significant environmental impacts, 4) assess whether the facilities will be constructed and operated in a safe, efficient and reliable manner, and 5) assess potential mitigation measures.

This request is being made in the areas of Biological Resources (Nos. 116-117), and Project Description (118-131). Written responses to the enclosed data requests are due to the Energy Commission staff on or before November 7, 2016, or at such later date as may be mutually agreed upon.

If you are unable to provide the information requested, need additional time, or object to providing the requested information, please send a written notice to both Commissioner Karen Douglas, Presiding Committee Member for the Mission Rock Energy Center, and me, within 20 days of receipt of this letter. The notification should contain the reasons for not providing the information, the need for additional time, and the grounds for any objections. If you have any questions, please call me at (916) 654-4894, or E-mail me at: mike.monasmith@energy.ca.gov.

Sincerely,

Mike Monasmith
Siting Project Manager

Enclosure: Data Requests Set 1B

MISSION ROCK ENERGY CENTER (15-AFC-02)
DATA REQUESTS SET 1B (Nos. 116 –131)

Table of Contents

BIOLOGICAL RESOURCES 3

PROJECT DESCRIPTION……..4

Technical Area: **Biological Resources**
Author: **Andrea Martine**

BACKGROUND: LAND COVER TYPES AND VEGETATION COMMUNITIES

AFC page 5.2-7 lists four types of land cover and vegetation communities: Urban, Agriculture, Open Space (e.g. Coastal Sage Scrub), and Riparian. In addition a comprehensive list of species observed during surveys is provided in the AFC Appendix 5.2B; however the plant and animal species observed during surveys are not provided for each land cover and vegetation community.

DATA REQUESTS:

116. Provide a description of the urban, agriculture, open space (i.e. coastal sage scrub), and riparian land cover/vegetation communities of the areas mapped in AFC Figure 5.2-6 (Pages 1-24). Include in your description the dominant, co-dominant, and other associated plant species observed for each land cover type/vegetation community.

117. Provide a list of wildlife species observed during surveys for each land cover type/vegetation community.

Technical Area: **Project Description**
Author: Mike Monasmith

BACKGROUND: Inconsistent Description of the Generation Tie-Line

The Electric Transmission section (section 3.0) of the Mission Rock Energy Center (Mission Rock or project) Application for Certification (AFC) states that the project would interconnect with the regional grid via a new approximately 6.6-mile long, single-circuit, three-phase 230-kV generator tie-line. Staff has noticed several inconsistencies with the information in the AFC associated with the generation tie-line that require clarification. Specifically, the number, numbering, and heights of new transmission towers are not consistent in the AFC.

Number

Thirty-six towers are marked on several of the figures in the AFC (e.g., Figs. 1.2-2 and 5.2-2); however, the total number of structures listed in Table 3-1 adds up to 37. One of the towers marked on the figures is not numbered. Throughout the AFC, with the exception of the Biological Resources section, the text identifies 36 towers proposed. The Biological Resources section identifies 38 towers. If the number of structures itemized in Table 3-1 is correct, one tower is missing from the other figures. It appears that either the table has an incorrect count or the figures do.

Numbering

Various figures in the Project Description, Biological Resources, and Cultural Resources sections of the AFC number the towers consistently between each section (36 towers, with one not numbered). However, the text in the Biological Resources section describing the habitat correlated with the tower number does not match with the numbering in the figures. For example, the biology text refers to towers 19-24 located in agricultural fields and/or citrus orchards. Based on the figures, there are no towers numbered 20 or 23. The biology text also states there are no towers numbered 13, 14, and 15. These towers are marked on the figures (see page 11 of Figure 5.2-2).

Height

The Electric Transmission section states that the heights of the 230-kV transmission towers would range from 76.5 feet for the H-frame to a maximum monopole height of 200 feet. Below that statement, Table 3-1 presents the height and number of structures. Energy Commission staff's review of the statement and table found discrepancies between the statement and information in the table. For example, Table 3-1 shows the shortest structure is 79.9 feet, not 76.5 feet as described in the statement above the table. Incidentally, one of the heights of the structures appears to be a typographical error, as the height is listed as 1341 feet. Also, based on the typical monopole design shown in Figure 3.2-1, the monopoles would be buried 20 feet below grade. Considering the portion installed below grade, it would appear that the heights of monopoles above grade could project 20 feet less than the heights presented in Table 3-1. For example, a 200-foot

monopole listed in the table could stand only 180 feet above grade depending upon the depth of the hole. There was no typical diagram for the H frame structure presented in the AFC, so staff cannot determine how much of the structure would be buried.

DATA REQUESTS

118. Please clarify the number and heights of the transmission towers necessary for the project.

119. Please clarify the heights of the transmission towers (monopole and H frame) above grade versus the entirety of the structure.

120. Please update the Biological Resources section to correlate correctly with the towers and tower numbers shown on the figures in the Biological Resources section, such as Figure 5.2-2.

BACKGROUND: Construction and Maintenance of the Generation Tie-Line

Very little information is provided about the 230-kV generation tie-line and how it would be constructed or maintained. The typical monopole design shown in Figure 3.2-1 indicates that the outside diameter of the monopole would be 35 inches at grade. This figure also marks the right-of-way width, but there is no accompanying number to indicate the width. Also, the width is not noted in the AFC. As noted previously, no typical diagram for the H structure was provided, so staff cannot determine the diameter of the legs of the structure.

The notes section on Figure 3.2-1 state the monopoles are to be designed for either erection by crane and/or helicopter. Staff reviewed Figure 5.2-2 (20 pages), focusing on the proposed location of the monopoles and trying to determine whether any access roads would need to be constructed to build and maintain the monopoles. It appears that several monopoles could be shifted slightly to be adjacent to existing roads and possibly no new access roads would need to be constructed. There does not appear to be any room for construction activities to install the monopoles.

DATA REQUESTS

121. Please provide the right-of-way width required for the generation tie-line (half and full right-of-way). Note any differences in right-of-way width requirements due to terrain or adjacent land uses or structures. Please map the right-of-way on aerials and a series of maps based on USGS 7.5-minute topographic maps enlarged to a scale of 1”=1,000 feet. Please provide the Geographic Information Systems shape files for the right-of-way. Please indicate areas of any new right-of-way versus existing right-of-way.

122. Please describe how the generation tie-line would be constructed/ installed. Please include the maximum dimensions of the ground disturbance associated with support structure installation; specifically maximum area, depth, width and volume.

123. Please provide the amount of temporary area and permanent area disturbed for the generation tie-line and show the areas on aerials and also a series of maps based on USGS 7.5-minute topographic maps enlarged to a scale of 1”=1,000 feet for the following list items (a-d). Please also identify the temporarily and permanently impacted areas (size in acres) and please provide the Geographic Information System shape files for the following listed items:

a. each monopole (include size in acres)

b. access route for construction (include location and length)

c. construction staging areas (include locations and size)

d. permanent and temporary areas of disturbance within/around the ROW, including removal of vegetation.

124. Please describe how the generation tie-line would be maintained once operational, including access needs and ongoing vegetation removal or maintenance within and around the right-of-way.

BACKGROUND: New Recycled Water Pipeline

A new 1.7-mile-long pipeline would connect recycled water from an existing Limoneira Company recycled water pipeline for delivery to the Mission Rock site. There is no other information provided about this new pipeline such as the diameter of the pipeline and how the line would be installed underground (including the depth, width, and amount of cover above the pipeline to bring the soil to grade). There is also no information about what area(s) may be necessary for construction staging and equipment laydown.

DATA REQUESTS

125. Please provide the diameter of the recycled water pipeline.

126. Please provide the right-of-way width required for the new recycled water pipeline (half and full right-of-way). Note any differences in right-of-way width requirements due to terrain or adjacent land uses or structures. Please map the right-of-way on aerials and a series of maps based on USGS 7.5-minute topographic maps enlarged to a scale of 1”=1,000 feet. Please provide the Geographic Information Systems

shape files for the right-of-way. Please indicate areas of any new right-of-way versus existing right-of-way.

127. Please describe how the recycled water pipeline would be installed, including the depth of cover provided over the pipeline, depth and width of the trench, or buried area, to install the pipeline.

128. Please provide the amount of temporary and permanent area disturbed for the recycled water pipeline and show the areas on aerials and also a series of maps based on USGS 7.5-minute topographic maps enlarged to a scale of 1”=1,000 feet for the following list items (a-d). Identify the temporarily and permanently impacted areas (size in acres). Please provide the Geographic Information System shape files for the following:

    a. recycled water pipeline

    b. access route for construction (location and length of route)

    c. construction staging areas (locations and size)

    d. permanent (including on-going) and temporary vegetation removal (e.g. trees, shrubs, etc) within and around the right-of-way.

BACKGROUND: Natural Gas Pipeline

The Natural Gas Supply section of the AFC (section 4) discusses the proposed 16-inch diameter, 2.4-mile-long pipeline that would supply natural gas to the Mission Rock site. Construction methods and other specifics are provided, such as the width of the trench, depth of pipe burial, and a description of stringing and installation, backfilling, plating, hydrostatic testing, cleanup, and commissioning activities. The 2.4-mile pipeline route crosses agricultural fields, follows the railroad right-of-way, and crosses several waterways. Construction would require laydown of equipment and installation (e.g. bending, welding) of pipeline after it has been strung together; all of which would require space to carry out these activities. There is not a clear description of what area would be needed to perform these activities along the 2.4-mile pipeline route.

DATA REQUESTS

129. Please provide the right-of-way width required for the new natural gas pipeline (half and full right-of-way). Note any differences in right-of-way width requirements due to terrain or adjacent land uses or structures. Please map the right-of-way on aerials and a series of maps based on USGS 7.5-minute topographic maps enlarged to a scale of 1”=1,000 feet. Please provide the Geographic Information Systems

shape files for the right-of-way. Please indicate areas of any new right-of-way versus existing right-of-way.

130. Please provide the maximum dimensions of the ground disturbance associated with the natural gas pipeline installation (depth, width and area), location and dimensions of boring and drilling entry and exit points where the pipeline is routed under existing drainages or infrastructure.

131. Please provide the amount of temporary and permanent area disturbed for the natural gas pipeline and show the areas on aerials and also a series of maps based on USGS 7.5-minute topographic maps enlarged to a scale of 1”=1,000 feet for the following list items (a-d). Identify the temporarily and permanently impacted areas (acres) and please provide the Geographic Information System shape files for the following:

a. natural gas pipeline

b. access route for construction (location and what length)

c. construction staging areas (locations and size)

d. permanent (including on-going) and temporary vegetation removal (e.g. trees, shrubs, etc) within and around the right-of-way.