

## DOCKETED

<b>Docket Number:</b>	97-AFC-02C
<b>Project Title:</b>	Sutter Power Plant Application for Certification
<b>TN #:</b>	201603
<b>Document Title:</b>	Sutter Energy Center's Informal Data Request Responses 30-36
<b>Description:</b>	N/A
<b>Filer:</b>	Sarah Madams
<b>Organization:</b>	CH2M HILL
<b>Submitter Role:</b>	Applicant Consultant
<b>Submission Date:</b>	1/27/2014 4:10:44 PM
<b>Docketed Date:</b>	1/27/2014



CH2M HILL  
2485 Natomas Park Drive, Suite 600  
Sacramento, CA 95833  
Tel 916-920-0300  
Fax 916-920-8463

January 27, 2014

Ms. Beverly Bastian  
California Energy Commission  
1516 Ninth Street  
Sacramento, CA 95814

**Subject: Sutter Energy Center (97-AFC-2C), Responses to Informal Data Requests 30 through 36**

Dear Ms. Bastian:

Attached please find Calpine Construction Finance Company, L.P. (Calpine) Responses to CEC Staff Informal Data Requests 30 through 36 in the areas of Socioeconomics, Soil & Water Resources, Traffic & Transportation, and Project Description for the Sutter Energy Center (97-AFC-2C).

Please do not hesitate to contact Doug Davy at (916) 286-0278 if you have any questions regarding the information we have submitted.

Sincerely,

CH2M HILL

A handwritten signature in blue ink, appearing to read "Doug M. Davy".

Douglas M. Davy, Ph.D.  
Program Manager

Attachment

cc: M. Weinberg, Calpine  
B. McBride, Calpine

# Sutter Energy Center

## Petition to Amend #6

### Response to Informal Data Requests 30-36

Submitted to  
**California Energy Commission**

Submitted by  
**CCFC Sutter, LLC**  
5029 South Township Road  
Yuba City, California 95993

With Technical Assistance by:

**CH2MHILL®**

2485 Natomas Park Drive  
Suite 600  
Sacramento, CA 95833

January 2014

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# Introduction

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On January 7, 2014, CCFC Sutter, LLC (CCFC or the Applicant) notified the Energy Commission that the gen-tie transmission line, the new transformer bank, and the new substation have been eliminated from the equipment modifications at Sutter Energy Center (SEC) requested in CCFC's March, 2013 amendment petition.

Consequently, several Energy Commission environmental and technical areas now have requests that petition data be updated to reflect these changes in the project description. In addition, this document contains responses to questions that Staff posed to CCFC regarding the project description during a site visit that took place on January 16, 2014.

Attached are CCFC's responses to California Energy Commission (CEC) Informal Data Requests 30 through 36 regarding the Sutter Energy Center (SEC) (97-AFC-2C) Petition to Amend (PTA) #6. 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 Informal Data Request numbers (30 through 33), with the site visit Staff queries added under "Project Description" as informal data requests 34-36.

New or revised graphics or tables are numbered in reference to the Informal Data Request number. For example, the first table used in response to informal Data Request 2 would be numbered Table IDR10-1. The first figure used in response to Informal Data Request 10 would be Figure IDR10-1, and so on. Figures or tables from the SEC PTA 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.

# Socioeconomics (30)

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## Construction Workforce by Month

30. *With reference to Table 3.9-1 (Socioeconomics: Construction Workers by Month) in the original Petition to Amend, please provide a revised table that reflects any changes in the table figures due to the changes in the project.*

**Response:** Table 3.9-1R provided in response to Informal Data Request (IDR) 27 has been updated to reflect the removal of the transmission line, transformer bank and new substation workforce, and is provided as Table 3.9-1R2. Revisions have been made in underline/~~strike-out~~ for ease in review.

TABLE 3.9-1R2

**Construction Workforce by Month**

Worker Type (from Table 3.9-3 of the AFC)	SOC Code*	Number of Craft/Month									
		1	2	3	4	5	6	7	8	9	
<b>Civil work for ACC</b>		<b>8</b>	<b>8</b>								
Operating Engineers/Equipment Operators	47-2070	2	2								
Construction Laborers	47-2060	6	6								
<b>ACC</b>				<b>12</b>	<b>25</b>	<b>38</b>	<b>38</b>	<b>30</b>	<b>30</b>		
Sheet Metal Workers	47-2210			6	13	19	19	15	15		
Helpers, Construction Trades	47-3010			6	12	19	19	15	15		
<b>Steam blows and ACC commissioning</b>											<b>6</b>
Electricians	47-2110										6
<b>Auxiliary boiler foundation</b>			<b>4</b>	<b>2</b>							
Cement Masons and Concrete Finishers	47-2050		1	1							
Construction Laborers	47-2060		3	1							
<b>Mechanical tie-ins for auxiliary boiler installation</b>					<b>6</b>	<b>6</b>	<b>4</b>				
Plumbers, Pipefitters, and Steam Fitters	47-2152				3	3	3				
Electricians	47-2110				3	3	3				
<b>Auxiliary boiler installation</b>								<b>8</b>	<b>9</b>		
Plumbers, Pipefitters, and Steam Fitters	47-2152							2	3		
Electricians	47-2110							2	2		
<b>Major Maintenance Staff</b>								<b>56</b>	<b>59</b>		
Plumbers, Pipefitters, and Steam Fitters	47-2152							28	28		
Electricians								28	29		
<b>Generator Tie-line</b>								<b>18</b>	<b>18</b>	<b>18</b>	
Construction Trade workers	47-4090							18	18	18	
<b>Construction Management Staff</b>	Supervisors/Managers	47-1010	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>
<b>Technical Advisor</b>	Supervisors/Managers	47-1010		<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>3</b>	<b>2</b>
<b>Total Craft</b>			<b>9</b>	<b>14</b>	<b>16</b>	<b>33</b>	<b>46</b>	<del>63</del> <b>45</b>	<del>116</del> <b>98</b>	<del>120</del> <b>102</b>	<b>9</b>

\* SOC codes obtained from <http://www.bls.gov/soc/2010/soc470000.htm> November, 2013

# Soil & Water Resources (31-32)

## Surface Elevation and Water Use

31. Please provide the ground surface elevation at the power plant.

**Response:** The SEC is at between approximately 41 and 43 feet above sea level.

32. Please provide revised estimated daily peak and total construction water use requirements (in gallons) for the following: dust suppression, soil compaction, concrete pour, and hydrostatic testing.

**Response:** As requested, please see Table IDR32-1, which identifies the estimated water consumption anticipated during construction activities. This table replaces Table IDR1-1 as it removes any construction water use originally anticipated for construction of the transmission line.

TABLE IDR32-1

**Soil and Water – Estimated Water Consumption For Construction Activities**

Construction Activity	Maximum Daily Water Usage (gallons)	Total Water Usage (gallons)	Water Source	Assumptions
Hydrostatic Testing	8,000	80,000	Existing Plant System	—
Dust Suppression	16,000	1,600,000	Existing Plant System	If needed.
Soil Compaction	700	7,000	Existing Plant System	—
Concrete Pour	2,000	100,000	Existing Plant System	—
Fire Suppression	—	—	Existing Plant System (for plant area only)	If fire suppression is required, flow rate is estimated to be 500 gpm. As fire suppression use is unpredictable, it is not included in the Total Water Usage.
<b>TOTAL</b>	<b>26,700</b>	<b>1,787,000</b>	<b>Existing Plant System</b>	—



# Traffic & Transportation (33)

## Estimated Traffic and Construction Access

33. Section 3.11.2 of the Petition to Amend includes combined estimates for the traffic that would be generated to construct both the proposed on-site modifications at the SEC and the off-site gen-tie transmission line. Please provide an updated section 3.11.2 which includes only the estimated traffic that would be generated by the construction of the proposed on-site modifications. Additionally, please confirm if construction equipment access to the SEC site would be exclusively from the existing entrance on South Township Road.

**Response:** Construction equipment access to the SEC site would be exclusively from the existing entrance to the SEC located on South Township Road.

In reviewing Section 3.11.2 of the Petition to Amend, there are some small inconsistencies in the text of Section 3.11.2 and Table 3.11-4. The text identifies the maximum number of construction workers as 102 during Month 8 of construction, however Table 3.11-4 uses 120 workers (102 onsite construction workers + 18 gen-tie line construction workers). The text is correct at 102 construction workers (as identified in Data Request #30). The number of delivery trucks estimated in the Petition to Amend (5 per day) remains unchanged. Therefore, Table 3.11-4 has been revised and provided as Table 3.11-4R to account for this change. Revisions have been made in underline/strike-out for ease in review.

TABLE 3.11-4R

### Construction Project Trip Generation

Trip Type	ADT	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Delivery Trucks	80	5	0	5	0	5	5
Delivery Trucks PCE (1.5)*	120	8	0	8	0	8	8
Workers	<del>240</del> <u>204</u>	<del>120</del> <u>102</u>	0	<del>120</del> <u>102</u>	0	<del>120</del> <u>102</u>	<del>120</del> <u>102</u>
Total Construction Traffic in PCE	<del>360</del> <u>324</u>	<del>128</del> <u>110</u>	0	<del>128</del> <u>110</u>	0	<del>128</del> <u>110</u>	<del>128</del> <u>110</u>

\*PCE = passenger car equivalent

# Project Description (34-36)

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## Depth of Excavation and Elevation at Site

34.. *How deep is the fill at the power block location?*

**Response:** During construction of the SEC, Calpine imported in fill to raise the site 5 feet to reach a nominal finished grade of 43 feet above sea level.

35. *Will there be excavations for the aux boiler and ACC street foundations – if so, how deep will the excavations be?*

**Response:** Both the auxiliary boiler foundations and the ACC street foundations will require excavations. The depth of footing and sizes are contingent on a geotechnical analysis and seismic loadings; however it is anticipated that the auxiliary boiler would require a minimum depth of excavation of 3'-0" and a minimum depth of excavation of 4'-0" for ACC foundations.

36. *What is the ground level elevation of the power block area?*

**Response:** Elevation of the power block area is approximately 43 feet above sea level.