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September 12, 2014

#### **VIA EMAIL & E-FILING**

Power of Vision c/o Arnold Roe, Ph.D. 3210 Piragua Street Carlsbad, CA 92009

Re: Petition to Amend the Carlsbad Energy Center Project (07-AFC-06C)

Project Owner's Responses to Power of Vision Data Request Set 1 (Nos. 1 - 5)

Dear Mr. Roe:

On or about August 13, 2014, Power of Vision ("**POV**") filed at the California Energy Commission its Data Request Nos. 1 through 5 (TNs 202921 and 202927) (the "**Data Requests**") regarding the Petition to Amend the Carlsbad Energy Center Project (07-AFC-06C). The enclosed document contains Carlsbad Energy Center LLC's ("**Project Owner**") full responses to all five (5) of POV's Data Requests. As the enclosed document includes a full response to POV Data Request Number 4, Project Owner will not need the additional time POV granted to Project Owner for that response (see TN 203026).

Please contact me or my colleague Allison Harris if there are questions about the enclosed data responses.

By:

Locke Lord LLP

John A. McKinsey

Attorneys for Carlsbad Energy Center LLC

JAM:awph

**Enclosure** 

# Carlsbad Energy Center Project Petition to Amend

(07-AFC-06C)

## Data Responses to POV Set 1

(Responses to Power of Vision Data Requests 1 to 5)

Submitted to

California Energy Commission

Prepared by

Carlsbad Energy Center LLC

September 12, 2014

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### Introduction

Attached are Carlsbad Energy Center LLC (Project Owner) responses to the Power of Vision (POV) Data Request Set 1 (numbers 1 through 5) regarding the Carlsbad Energy Center Project (07-AFC-06C) (CECP) Petition to Amend (PTA) that is currently under consideration by the California Energy Commission (CEC). Any capitalized term not defined in these Data Responses to POV Set 1 shall have the meaning given to it in the PTA.

The responses are presented in the same order as POV presented them and are keyed to those Data Request numbers. New or revised graphics or tables are numbered in reference to the respective Data Request number to which they correspond. For example, the first table used in response to POV Data Request 1 would be numbered Table DR1-1. The first figure used in response to POV Data Request 1 would be Figure DR POV 1-1, and so on. Figures or tables from the CECP PTA that have been revised have, for example, "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.

IS120911143713SAC 1 INTRODUCTION

## Data Responses to POV Set 1 (1-5)

#### **BACKGROUND:**

The May 2, 2014 Petition to Amend (PTA), among other things, indicated placement of the 230 KVA transmission line from proposed generating units 6, 7,8 and 9 to the SDG&E switchyard along the east side of the property, adjacent to the I-5 freeway (see Figure 3.1-1 of the PTA). In order to adequately evaluate the impact of this new location for the transmission line, we are making the following data requests.

#### **DATA REQUEST**

1. What is the length of the 230 KVA transmission line (adjacent to the I-5 freeway), from the deadend pole taking feed from units 6 & 7 at the north end of the project to the pole on the south end of the project (where the transmission line turns west to the SDG&E switchyard)?

#### Response:

The anticipated length of this north-south section is 1,300 feet.

#### DATA REQUEST

2. Adjacent to units 8 & 9, what is the distance between the eastern edge of the upper rim road and the I-5 freeway boundary (shown as a red dashed line on Figure 3.1-1 of the PTA).

**Response:** Adjacent to units 8 and 9, the distance between the eastern edge of the east rim road and the future highway I-5 right-of-way boundary is 12.5 feet and the current distance from the east rim road to the Encina Power Station property's eastern fence line is 50 feet. In the PTA, the Project Owner depicted the rim road and transmission line poles for the Amended Project in relation to both the existing and future configurations of Highway I-5 because Caltrans will widen this portion of the highway at an indefinite time in the future. Both options were shown because this project may not occur until many years after the Project Owner completes construction of the CECP construction.

#### **DATA REQUEST**

3. Adjacent to units 8 & 9, what is the height of the power pole?

#### Response:

The anticipated height of this pole is 98 feet.

#### **DATA REQUEST**

4. Please provide a dimensioned cross-section drawing, looking north, and extending from the west at the units 8 & 9 transformers to the freeway I-5 roadway (See attached "FIG 3.1-1 MODIFIED by POV" section A-A). This cross section should show the transformer, power pole, rim road, visual screening (trees?), and the I-5 freeway.

#### Response:

The cross-section requested has been prepared, and is presented in Figure DR POV 4-1. The cross-section is indicated as cross-section A-A on Figure DR POV 5-1. The transmission line pole for units 8 and 9 will be

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located on the west side of the east rim road, approximately 62 feet west of the Encina Power Station property's fence line and approximately 27 feet from the future, expanded Highway I-5 right-of-way.

#### DATA REQUEST

5. In the Visual Resources section of the PTA, two views of the 230 KVA transmission line from the I-5 freeway are shown, Figure 5.13-8C and Figure 5.13-9B. In order to further assess the view of the transmission line that will be seen by the 198,000 daily users of the freeway, we are making the following data request:

Please provide two views of the transmission line, from points on the I-5 freeway as shown on the attached "FIG 3.1-1 MODIFIED by POV". Visual from southbound I-5 is from approximately 400 feet north of the cross section line A-A. Visual from northbound I-5 is approximately 800 feet south of the cross section line A-A. Note that these requested views are closer to units 8 & 9 than the views provided in the PTA.

#### Response:

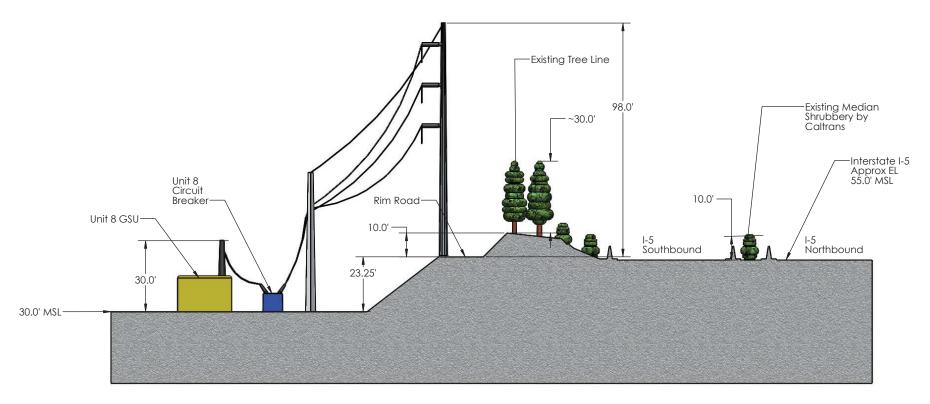
The simulated views from the two supplemental viewpoints on Highway I-5 are attached as Figures DR POV 5-2 (southbound) and DR POV 5-3 (northbound). These simulations depict the transmission line and the three (3) 98-foot-tall transmission poles that would be situated east of the amended facility. The maximum potential design height for these structures is 98 feet. The final height of these structures has not yet been determined, but by using the 98-foot height, the maximum potential impact scenario has now been depicted. Figure DR POV 5-1 is a map on an aerial photo base that indicates the locations of these supplemental viewpoints in relation to the nearest KOP views analyzed in the Visual Resources Section of the Petition to Amend.

Figure DR POV 5-2 is a simulation of the view looking south from the southbound lanes of Highway I-5 at a point approximately 400 feet north of the transmission structure at POV's cross-section line A-A. The structure at cross-section line A-A is visible on the right side of the simulation, partially screened by a large tree.

Figure DR POV 5-3 is a simulation of the view looking north from the northbound lanes of Highway I-5 at a point approximately 800 feet south of the transmission structure at POV's cross-section line A-A. The structure at cross-section line A-A is visible as the second transmission structure from the right side of the simulation.

To put the view seen in Figure DR POV 5-3 in context, we refer the reader to Figure 5.13-9B in the PTA, which provides a simulation of the view looking north from KOP 7. This observation point is located in the northbound lanes of Highway I-5 at a point close to where the Cannon Road on-ramp merges with the freeway, and is approximately 1,000 feet south of the Figure DR POV 5-3 viewpoint. From this observation point, the existing SDG&E transmission corridor crossing Highway I-5 is visible in the immediate foreground. The transmission structures that will be required by the amended project are visible to the left of the freeway in the area north of the SDG&E transmission corridor crossing. The transmission structure at POV's cross-section A-A is the second-to-last of the new transmission structures depicted along the left side of the freeway. From KOP 7, this structure will be effectively hidden by a large tree.

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Section View Looking North(plant) Cross Section Prepared by CB&I Layout Shown is Preliminary Scale: 1:1024

Figure DR POV 4-1 Cross-Section Looking North at the Unit 9 Transformer and Interstate Highway I-5 Carlsbad Energy Center Project Carlsbad, California (07-AFC-06C) Petition to Amend

CH2MHILL.





Encina Power Station Site

Amended CECP Project Site

Poseidon Desalinization Site

Footprint of the Amended Project's Major Features

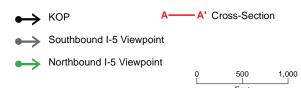


Figure DR POV 5-1
Aerial View of Project Site and Locations of Key
Observation Points and Supplemental Viewpoints
Carlsbad Energy Center Project
Carlsbad, California (07-AFC-06C)
Petition to Amend



Simulated with-project view looking southbound on I-5, 400 feet north of the proposed transmission structure associated with the proposed Unit 8 and 9 transformers

Figure DR POV 5-2 Southbound View of the Amended CECP From Highway I-5 Looking Toward the Transmission Structure Proposed to Serve Units 8 and 9 Carlsbad Energy Center Project Carlsbad, California (07-AFC-06C) Petition to Amend



Simulated with-project view looking northbound on I-5, 800 feet south of the proposed transmission structure associated with the proposed Unit 8 and 9 transformers

Figure DR POV 5-3
Northbound View of the Amended CECP From
Highway I-5 Looking Toward the Transmission Structure
Proposed to Serve Units 8 and 9
Carlsbad Energy Center Project
Carlsbad, California (07-AFC-06C)
Petition to Amend