

DOCKETED

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Power of Vision

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Via E Filing
March 25, 2015

Carlsbad Energy Center Project (07-AFC-06C)

Karen Douglas, Commissioner and Presiding Member
Andrew McAllister, Commissioner and Associate Member
California Energy Commission
1516 Ninth Street
Sacramento, CA 95814-551

Power of Vision's (Updated Exhibit References for) Preliminary Testimony

Visual

At this hearing, Power of Vision (POV) will not dwell on the past history of misplaced good intentions, miscalculations, and stubbornness that has led to the visual blight that will result from the proposed transmission tie line being located on the east side of the project, adjacent to the I-5 freeway. Our purpose continues to be in finding a reasonable solution to the visual impact created by the transmission tie line, particularly after the I-5 freeway widening.

Firstly, we should remember that the approved CECP showed the tie line on the western perimeter of the project. Nothing has changed in the amended CEPC that would preclude the tie line from being placed in the previously approved location. However, there are better locations for the tie line.

SEE EXHIBIT #4009 (TN# 203933)

SEE EXHIBIT #4010 (TN# 203932)

Caltrans has provided a plan view of their preferred proposed freeway re-alignment which shows how this re-alignment will impinge on the NRG property. It should be noted that the preferred alignment is constrained by the location of the adjacent bridge over the Agua Hedionda.

This information could have allowed the project owner to respond to CEC Staff's Data Request Set 3, items 78-80, (See Exhibit # 4013, TN# 203149, pg 10) asking for a cross sectional drawing after the I-5 widening.

SEE EXHIBIT # 4001, (TN# 203791, PG 2)

The top rendering shows a section view with the current I-5 alignment. Using the information from Caltrans preferred I-5 re-alignment plan, the bottom rendering shows how the re-aligned freeway will now be adjacent to the upper rim road, eliminating the berm and screening vegetation. It also shows that the transmission tie line pole, even though it has been moved 17 feet lower into the pit, still looms 81 feet above the freeway.

SEE EXHIBIT # 4011, (TN# 203942)

The top photo on this page shows a rendering of the proposed site from the I-5 freeway, looking South, before the highway re-alignment. The bottom photo shows a rendering after the highway re-alignment. Note the proximity of the security wall, and the lack of space for vegetative screening.

SEE EXHIBIT # 4012, (TN#203943)

This page shows similar before and after renderings viewed from the freeway, looking North.

SEE EXHIBIT # 4002 (TN# 203474, PG 3, CALTRANS TELEPHONE CONVERSATION WITH CEC STAFF)

Please note item 11) which indicates that "Caltrans is not proposing any landscaping between the I-5 expansion and the CECP site. The CECP owner will be providing the landscaping."

SEE EXHIBIT # 4003 (TN# 203790, PG 2, CALTRANS TELEPHONE CONVERSATION WITH JULIE BAKER)

Caltrans subsequently reaffirmed their position regarding landscaping in a recent telephone conversation with Julie Baker.

The reason for Caltrans position is clear...there just isn't any room for it to do any landscaping between the freeway and the site's upper rim road and security barrier. Nor does the project

owner have room to do the landscaping. And neither Caltrans nor the project owner say they will do the landscaping.

This situation highlights the problem with Condition of Compliance VIS-5.

SEE EXHIBIT # 4007 (TN#203696, Conditions of Certification VIS-5, 7-07,8,&9)

VIS-5 calls for the project owner to "...maintain a permanent buffer zone...on the eastern portion of the CECP site...and be kept available to...accommodate future possible I-5 widening...and to accommodate...visual screening." However, we have seen from the above renderings that the project owner will not be able to comply with this Condition. VIS-5 goes on to require the project owner to "...work with Caltrans to develop a mitigation plan for accommodating the widening project...The mitigation plan shall include, at a minimum, a 20-foot wide or greater landscape planting buffer zone along the entire CECP/I-5 boundary to accommodate replacement tree canopy of sufficient height and density as to provide substantial visual screening of the tall amended CECP features, including exhaust stacks and transmission poles..." As we can see once more from the cross sectional drawing, there is no 20-foot available along the CECP/I-5 boundary for a 20-foot buffer zone.

SEE EXHIBIT # 4001, (TN# 203791, PG 2)

Condition VIS-5 goes on to say, in the Verification section, that "...The project owner shall work with Caltrans to devise a specific Cumulative Impact Management Plan for accommodating...visual screening...", but ignores the act that both Caltrans and the project owner have repeatedly stated that they will not do any landscaping required by the re-alignment of the I-5, nor does VIS-5 stipulate any requirements (such as undergrounding of the transmission tie line) in the event that the two parties cannot come up with a plan to provide adequate screening.

In short, VIS-5 postulates conditions that cannot be met and lacks proper verification conditions

But all is not lost. There are measures that can be taken today to reduce some of the cumulative visual impacts resulting from the I-5 widening.

SEE EXHIBIT # 4001, (TN# 203791, PG 5)

One such possibility is to rotate each of the power generating units 180 degrees so that they can connect to transmission tie line poles located in the pit on the western side of the site, as shown in POV Figure VIS-1

Perhaps a better solution comes from viewing tie line configurations used in other recently approved by the CEC, such as the Panoche Power Station.

SEE EXHIBIT # 4001, (TN# 203791, PG 6)

Here we see the tie line being carried directly on the H-frames, thus completely eliminating the 98-foot poles proposed for the amended CECP.

SEE EXHIBIT # 4001, (TN# 203791, PG 7)

The approximately 60-foot high H-frames, located in the pit, and further away from the freeway, will be less visible from all view points outside of the site.

SEE EXHIBIT # 4001, (TN# 203791, PG 8 &9)

SEE EXHIBIT #4014, (TN# 203596, PG 3)

Further height reductions can be realized if clearances to ground and clearances between conductors can be reduced to conform to the minimum requirements of California Public Utilities Commission General Order 95 (Exhibit # 4006, TN# 203802) or National Electric Safety Code 2012 Edition.

To avoid the potentially irresolvable conflicts that could occur from the current version of VIS-5, and to avoid the additional costs and disruptions that may occur if the tie line has to be relocated underground, or away from the I-5 re-aligned freeway, **POV hereby petitions the Commissioners** to change VIS-5 to simple read:

Since effective visual screening of a transmission tie line located adjacent to the widened I-5 freeway may not be feasible unless it is placed underground or on the western edge of the pit, or on H-frames within the pit, in no event shall an above ground transmission line be located either adjacent to the upper rim road or in the pit on the eastern side of the site

Alternatives

Given the recent decision by the California Public Utilities Commission (CPUC) to recommend denial of a power purchase agreement between SDG&E and NRG (TN# 203789 by Intervenor Kerry Siekmann, and TN# 203786 by Intervenor Robert Sarvey), Power of Vision testifies there are obvious alternatives to the amended CECP.

The CPUC made clear in their draft decision that:

"The 'Loading Order' established that the state, in meeting its energy needs, would invest first in energy efficiency and demand-side resources, followed by renewable resources, and only then in clean conventional electricity supply." (Energy Action Plan 2008 Update at 1. Pg. 12.

And,

"To be clear, D.14-03-004 authorized SDG&E to procure from 500 MW up to 800 MW by 2022, of which at least 200 MW must be--and up to 100 percent may be--preferred resources. (D.14-03-004 at 2.) If approved, the Carlsbad PPTA for 600 MW of conventional generation resources will categorically preclude any procurement of preferred resources beyond the mandatory minimum. It will relieve SDG&E of the duty "to procure renewable generation to the fullest extent possible" once it achieves the 200 MW minimum target for preferred resources, as mandated by the Commission." Pg. 13.

Therefore, it is reasonable to suggest that 600 MW is not appropriate for the Carlsbad site and that it overstates the requirements of the load order. **POV hereby petitions the CEC:**

to reduce the number of megawatts for the amended CECP to 300. (3-100 MW peaker units)

A further benefit of reducing the number of units for the amended CECP is that it will keep the footprint of amended CECP to the size of the previously approved CECP, avoiding earthmoving and remediation in the oil tank #4 area. It will also eliminate the need for the two southernmost 98-foot power transmission line poles, currently slated to be placed next to the upper rim road, adjacent to the I-5 freeway.

Coastal Dependency

The City of Carlsbad has docketed TN# 203506 on January 8, 2015 indicating their ability to serve potable water, recycled water, and sewer services to the amended CECP. Furthermore, in a letter to the CEC (TN# 203100), the project owner stated:

"The Project Owner, Carlsbad Energy Center LLC, for the Carlsbad Energy Center Project ("CECP") (07-AFC-06C), hereby provides confirmation that the Amended CECP being evaluated by California Energy Commission Staff is not intended to use purified ocean water as a water source. The design and intent for the amended CECP is to use reclaimed water as the primary source and potable as a backup source."

POV testifies that the amended CECP is not coastal dependent and therefore requires a CEC Commission over-ride.

Sincerely your,

Julie Baker

Arnold Roe, Ph.D.

APPENDIX



EXHIBIT # 4009, TN# 203933

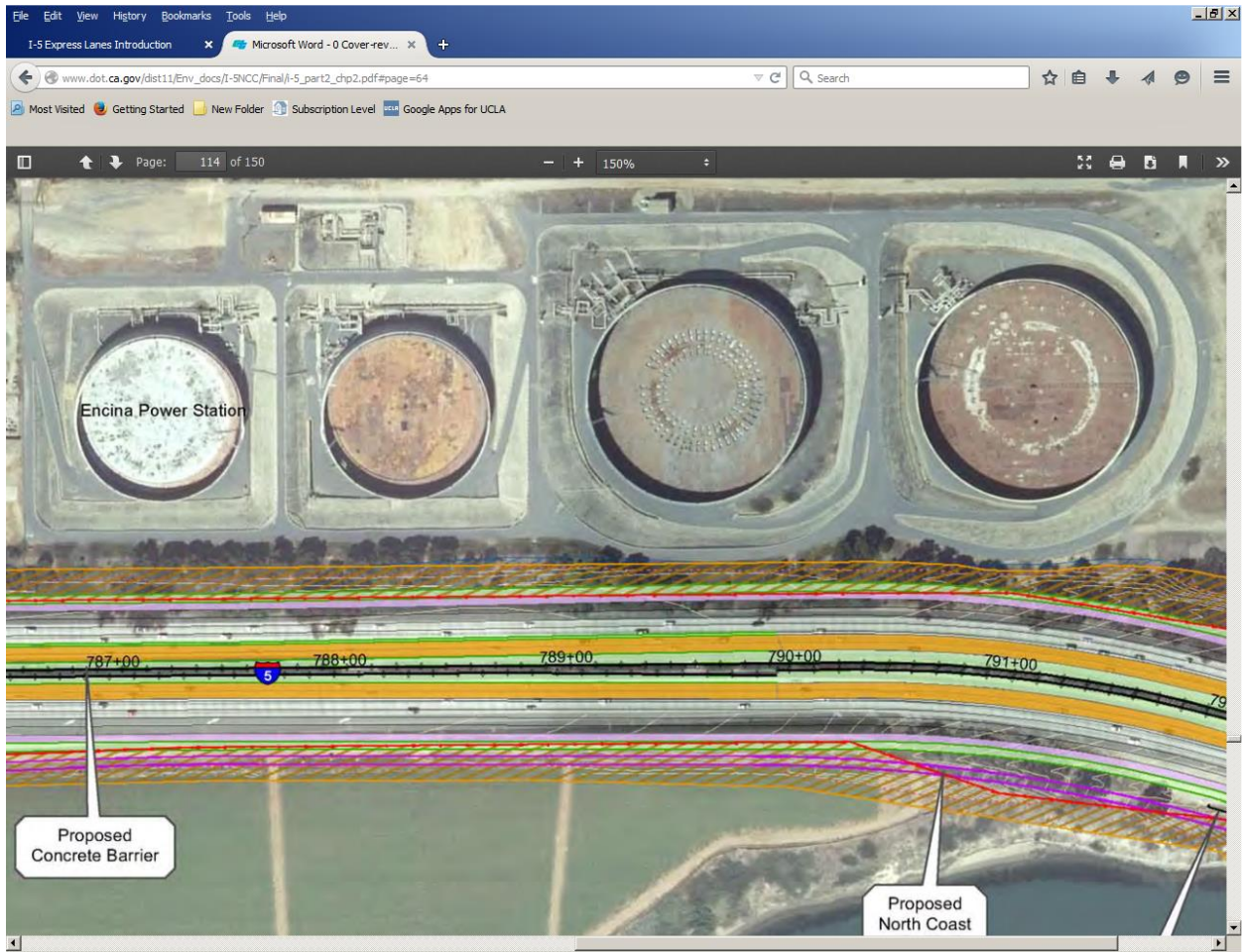
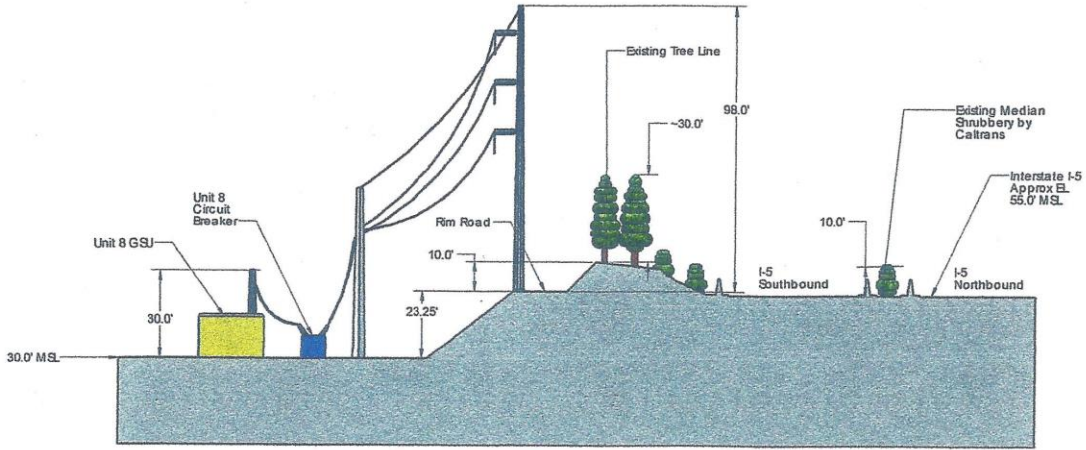


EXHIBIT 4010, TN# 203932

EXHIBIT 4001, TN# 203791, PG 2



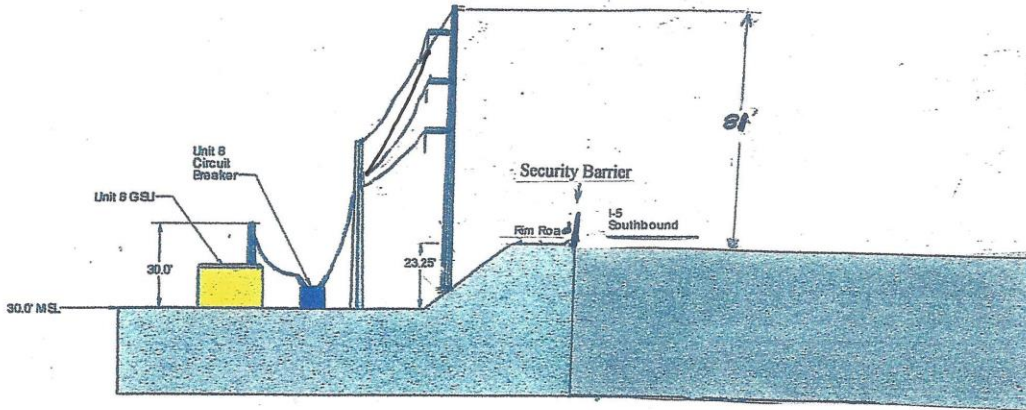
Section View
Looking North(plant)

Cross Section Prepared by CB&I
Layout Shown is Preliminary
Scale: 1:1024

Figure DRPOV 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)
Permit to Amend

5007820101010R carlsbad_DR_POV_4_1.dwg

CH2MHILL



Section View
Looking North(plant)

Cross Section Prepared by ROE
Layout Shown is Preliminary
Scale: 1:1024

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

5007820101010R carlsbad_DR_POV_4_1.dwg

CH2MHILL

EXHIBIT 4011, TN# 203942



Simulated with project view looking southbound on I-5, north of the proposed transmission structure associated with the proposed Units 8 and 9 line of units depicting the revised design of the proposed transmission system.

Figure BR-POV 3-3 Revised Southbound View From I-5 Looking toward the Transmission Structure Proposed to Serve Units 6 and 9 (Provided by the Center of Project) (Revised Structure is 15 feet higher by 15 feet) (1/15/2014)

CH2MHILL



Simulated with project view looking southbound on I-5, north of the proposed transmission structure associated with the proposed Units 8 and 9 line of units depicting the revised design of the proposed transmission system.

POV 3-4 After I-5 widening revised by William Kloetzer 10/20/13

EXHIBIT 4011, TN# 203943



Simulated with original view looking north and an elevation of the proposed tower extension structure as shown with the proposed Units 6 and 8 transformers depicting the revised design of the project transmission system.

Figure DR, POV 5-0 Revised
 Northbound View, from I-6 Looking Toward
 Transmission Structure Proposed to Serve Units 6 and 8
 Campbell Energy Center Project
 Larkland, California (07 & 08)
 Project to Amend

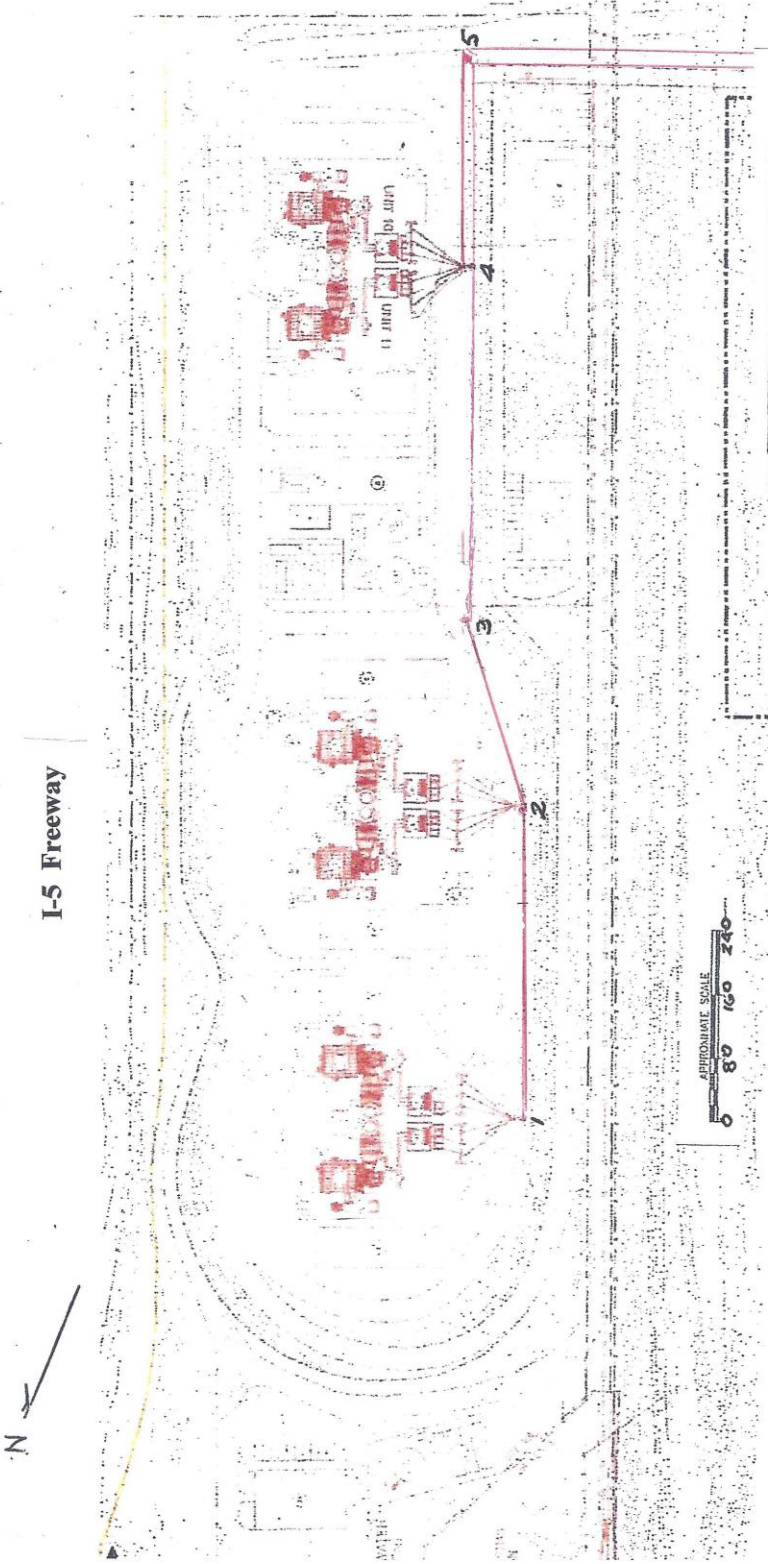
REVISED: 08/26/2013 10:11:11 AM

CH2MHILL



Simulated with original view looking north and an elevation of the proposed tower extension structure as shown with the proposed Units 6 and 8 transformers depicting the revised design of the project transmission system.

POV 5-1
After I-6 widening
 revised by William Kietzer: 03/08/13



POWER OF VISION
POV Figure VIS-1
Transmission Tie Line Relocated
To West Side of The Pit
January 21, 2015

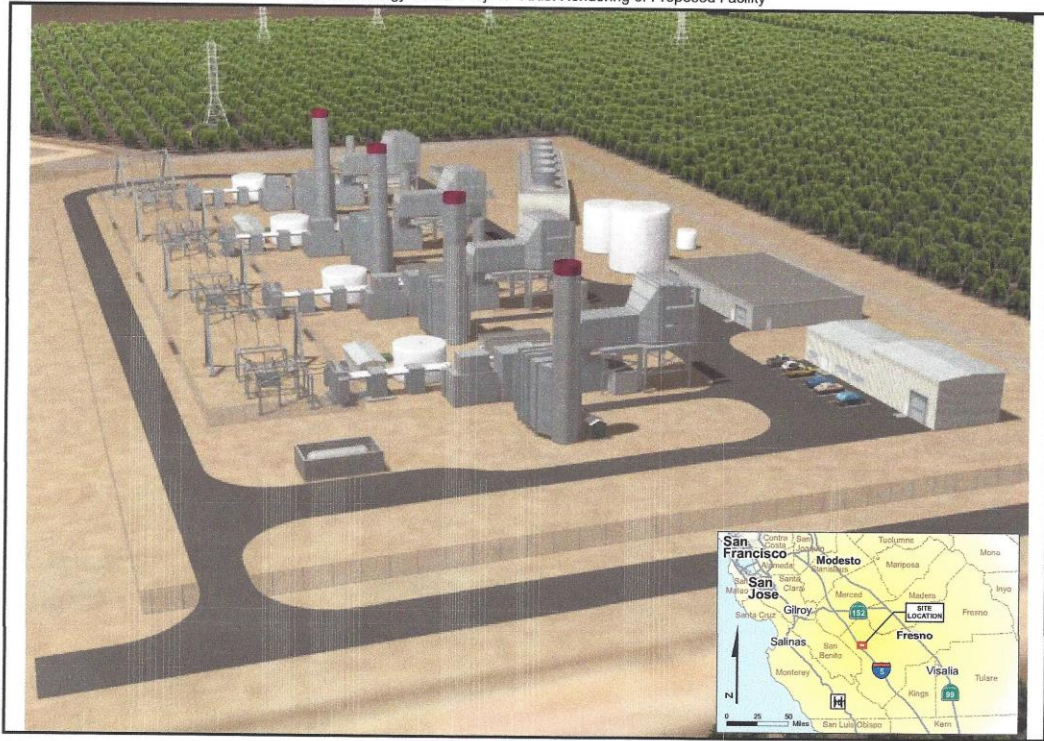
Poles 1, 2, & 3 located at the bottom of the pit.

Pole 4 can be located either at the bottom of the pit or west of the upper rim road.

Pole 5 located adjacent to pit access road.

pg 5

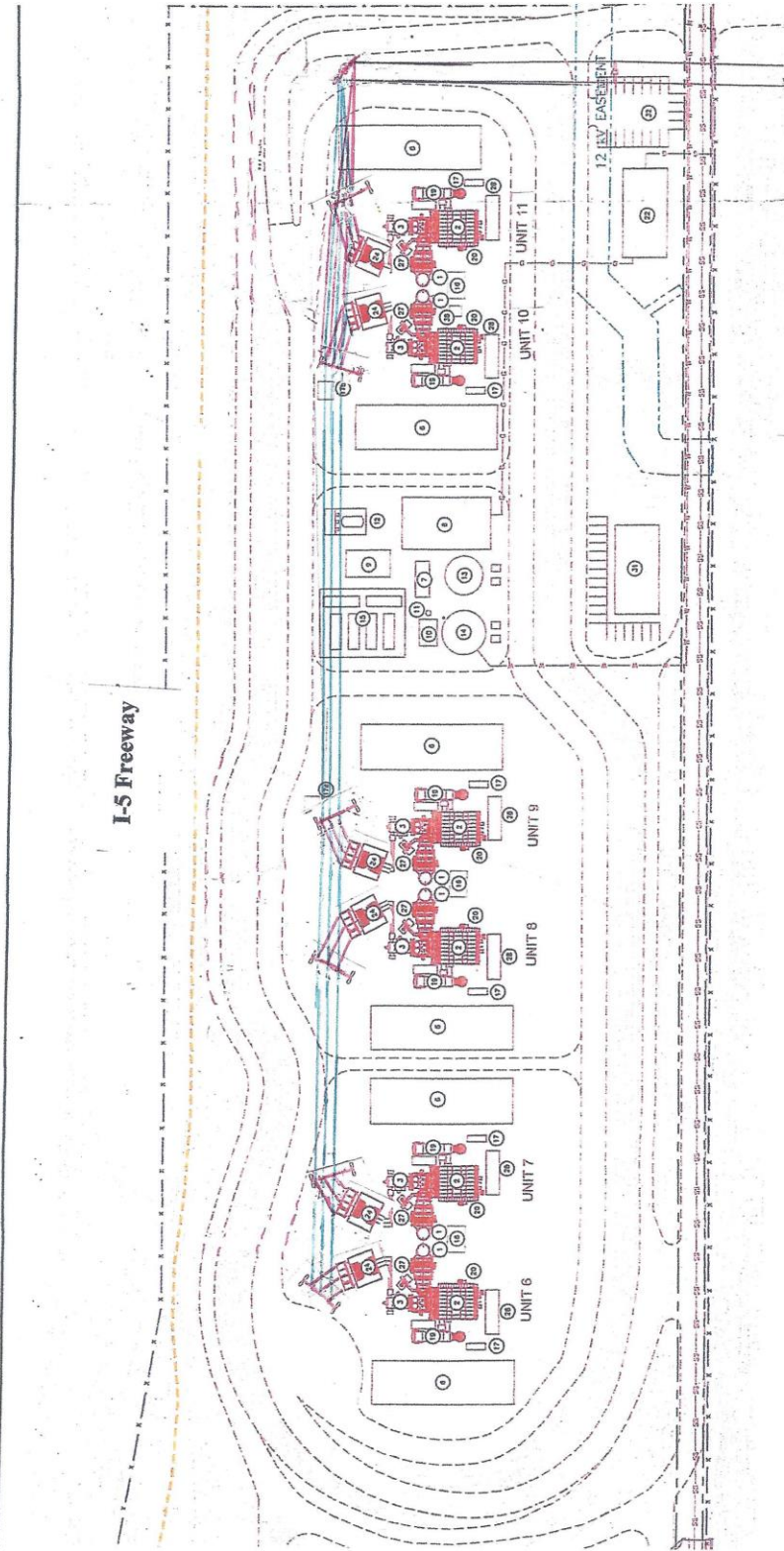
PROJECT DESCRIPTION - FIGURE 4
Panoche Energy Center Project - Artist Rendering of Proposed Facility



CALIFORNIA ENERGY COMMISSION
SOURCE: Ex. 100

Firebaugh Panoche Energy Center

PG 6



POWER OF VISION

POV Figure VIS-2

Transmission Tie Line Relocated

To Within the Pit, on H-Frames

Eliminating Four 98' Poles

March 5, 2015

Pg 7

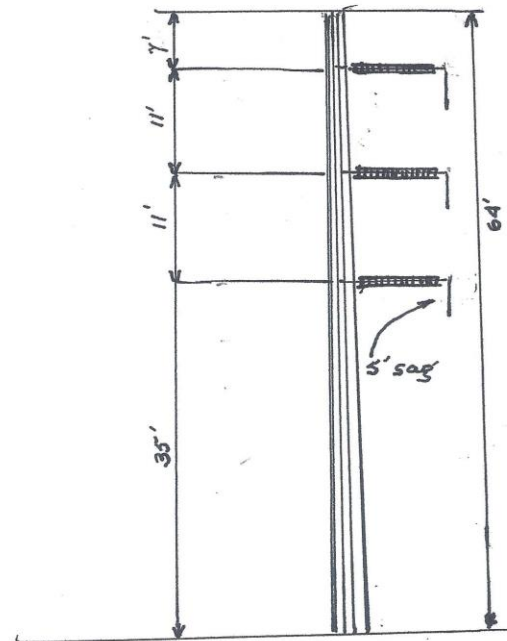
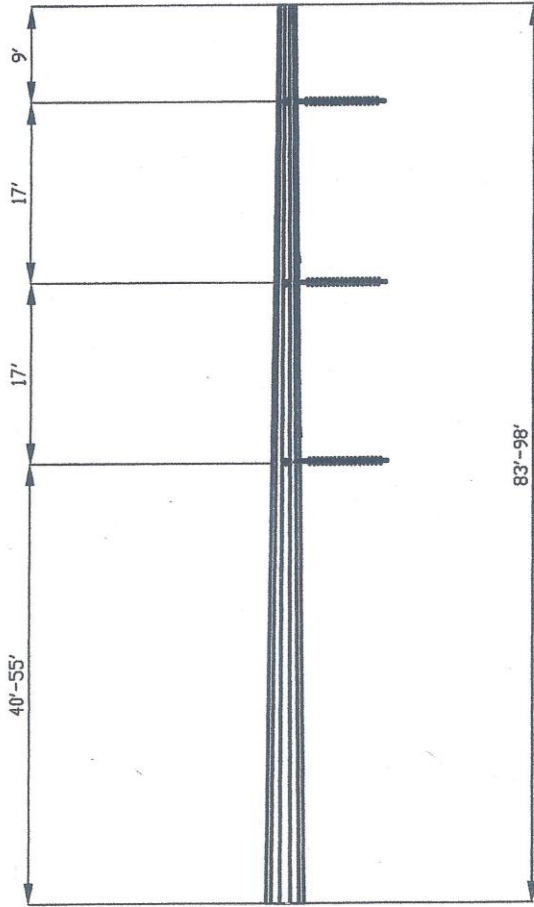


Figure 3.1-5
230kV Line Cross-section Deadend Pole
Amended Carlsbad Energy Center Project
Carlsbad, California (07-AFC-06C)
Petition to Amend

CH2MHILL.

230kV Line Pole

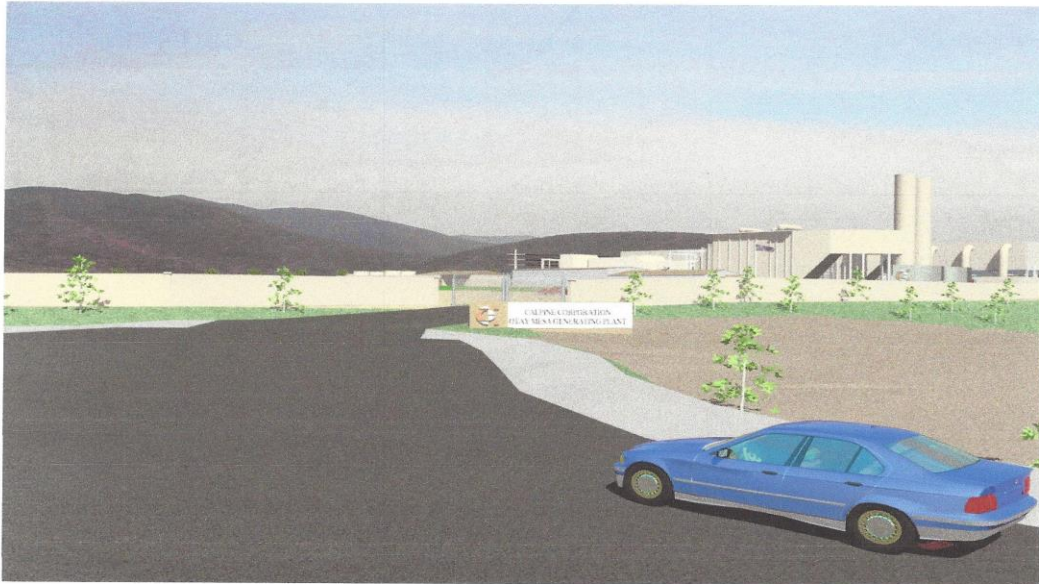
Compliant with GO-95 Requirements

Pg 8

EXHIBIT 4001, T# 203791, PG 9

Southern Cul de Sac.jpg (JPEG Image, 1024 × 768 pixels)

<http://www.shapouri.com/newsite/images/Otay Mesa Power Plant/Sou...>



P3 9