

## DOCKETED

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<b>Project Title:</b>	Carlsbad Energy Center - Compliance
<b>TN #:</b>	203856
<b>Document Title:</b>	Opening Testimony
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<b>Organization:</b>	Power of Vision
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# Power of

# Vision

March 12, 2015

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Via E Filing  
March 10, 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 Opening Testimony**

## **Visual**

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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 #4000 (TN# 203484, PG 4) IN APPENDIX***

Caltrans has provided a plan view of their preferred proposed freeway re-alignment that 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 Lagoon.

This information could have allowed the project owner to respond to CEC Staff's Data Request Set 3, item 78-80, (See pg 10) asking for a cross sectional drawing and an overlay plan view after the I-5 widening.

***SEE EXHIBIT # 4001, (TN# 203791, PG 2) IN APPENDIX***

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. It also shows the tie line pole moved 17 feet into the pit, but still looming 81 feet above the freeway.

***SEE EXHIBIT # 4001, (TN# 203791 PG 3) IN APPENDIX***

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.

The next page shows similar before and after renderings viewed from the freeway, looking north.

***SEE EXHIBIT # 4001, (TN# 203791 PG 4) IN APPENDIX***

***SEE EXHIBIT # 4002 (TN# 203474, PGS 2- 3, CALTRANS TELEPHONE CONVERSATION WITH CEC STAFF) IN APPENDIX***

Please note item 11) which indicates, "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) IN APPENDIX***

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 says 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) IN APPENDIX***

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 fact 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) IN APPENDIX***

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) IN APPENDIX***

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) IN APPENDIX***

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.

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 or National Electric Safety Code 2012 Edition.

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

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 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

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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 tie line poles, currently slated to be placed next to the upper rim road, adjacent to the I-5 freeway.

## Coastal Dependency

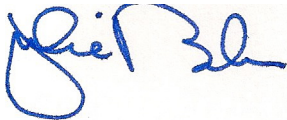
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The City of Carlsbad has docketed (TN#203506) on January 8, 2015 a "Statement of the City of Carlsbad's willingness to serve potable water, recycled water, and sewer service to the amended CECP." In a letter to the CEC (TN #203100), the applicant stated:

"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 Petition to Amend filed by Project Owner was not clear on this point. The design and intent for the Amended CECP is to use reclaimed water as the primary source and potable as a backup water source. "

POV testifies that **the amended CECP is no longer coastal dependent and therefore requires a CEC Commission over ride.**

Sincerely yours,



Julie Baker

Arnold Roe, PhD

# Appendix

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**EXHIBIT # 4001, (TN# 203791 PG 3)**

POV images



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

Figure 124 POV S-2 Revised  
Southbound View From I-5 Looking Toward the  
Transmission Structure Proposed to Serve Units 8 and 9  
California Energy Center Project  
Orland, California (EPC-00)  
Petrao de Amorim

CH2M HILL

CH2M HILL



**EXHIBIT # 4001, (TN# 203791 PG 4)**

POV images



Similar to the subject view looking northbound on I-5 south of the proposed transmission structure associated with the proposed Units 8 and 9 transformers depicting a revised design of the project transmission system.

Figure 08K POV 5-3 Revised  
Northbound View From I-5 Looking toward  
Transmission Structure Proposed to Serve Units 8 and 9  
Cajon Valley Energy Center Project  
Cajonland, California (07 APF 06)  
Peterson Associates

CH2MHILL

08K001P 08K001P 08K001P 08K001P 08K001P



**EXHIBIT # 4002 (TN# 203474, PGS 2- 3, CALTRANS TELEPHONE CONVERSATION WITH CEC STAFF)**

**CALIFORNIA ENERGY COMMISSION**  
**REPORT OF CONVERSATION**



*Siting, Transmission, and Environmental Protection Division*

**FILE: 07-AFC-06C**

**PROJECT TITLE: Carlsbad Energy Center Project**

<input checked="" type="checkbox"/> Telephone		<input type="checkbox"/> Meeting Location: NA (Phone Conference Call)
<b>NAME:</b>	Andrea Koch, David Flores, Kerry Willis, and Dick Ratliff of the CEC	<b>DATE:</b> 12/11/14
<b>WITH:</b>	Arturo Jacobo, I-5 North Coast Corridor Project Manager and Majid Kharrati, I-5 North Coast Corridor Design Manager (at Caltrans)	
<b>SUBJECT:</b>	Details and Timing of Future I-5 Expansion Near CECP Site	

**PHONE CONVERSATION:**

Mr. Jacobo answered CEC staff's questions regarding future I-5 expansion near the Carlsbad Energy Center Project (CECP) site. From the phone conversation, CEC staff gathered the following information:

- 1) The Final EIR/EIS for the I-5 North Coast Corridor Project was released in 2013. A Record of Decision is expected in the middle of January 2015.
- 2) The project extends from the city of San Diego at its southern end to the city of Oceanside at its northern end.
- 3) The Draft EIR/EIS released in 2010 included 4 direct access ramps (DARs) north of Cannon Road in the city of Carlsbad. (A DAR is an interchange connecting local streets to HOV lanes.) However, the city of Carlsbad did not know what plans for the Strawberry Fields would be, so Caltrans removed plans for the DARs in their Final EIR/EIS. Once the city knows the plans for the Strawberry Fields, Caltrans might include plans for the DARs in an additional environmental review, such as an Addendum to the EIR/EIS.
- 4) The final defined configuration of the I-5 improvements in the area of the CECP is shown on pages 2-113 to 2-115 of the Final EIR/EIS. In the area of the CECP site, this configuration includes 2 carpool (HOV) lanes in each direction, 4 general purpose lanes in each direction, and 1 auxiliary lane in each direction. (An auxiliary lane connects an on-ramp and off-ramp.)
- 5) Phase I of the I-5 expansion project in the CECP area consists of one new carpool (HOV) lane in each direction of the freeway from Manchester Avenue (in Cardiff) at the southern end to State Route 78 (in Oceanside) at the northern end. Preliminary design maps for this phase are expected to be available at the end of January 2015. Construction will begin in 2016.
- 6) Mr. Jacobo is not yet sure whether construction of Phase I will require removal of the

**CALIFORNIA ENERGY COMMISSION**  
**REPORT OF CONVERSATION**



eucalyptus trees along I-5. He thinks that it likely will, as the pavement will need to be expanded by 8 feet. The preliminary design maps will show whether any trees will need to be removed.

- 7) Phase II of the I-5 expansion project is the remainder of the project (the remaining new HOV lane in each direction and the new auxiliary lane in each direction). This phase will be constructed from 2025-2030.
- 8) Although the preliminary engineering shown in the Final EIR will be further refined during the design phase, Caltrans is committed to containing the expansion within the footprint shown in the Final EIR. Details such as whether a retaining wall or grading will be used at the border of the expansion are not yet known.
- 9) Mr. Jacobo is not commenting on the lawsuit challenging the San Diego Association of Government's (SANDAG's) 2050 Regional Transportation Plan, which CEC staff expects could possibly affect I-5 expansion plans. Mr. Jacobo stated that Caltrans will continue with the current plan for I-5 expansion in the absence of a court-ordered injunction against continuing.
- 10) Mr. Jacobo and Mr. Kharrati stated that they will send CEC staff the design files of the I-5 project's footprint on Friday, December 12<sup>th</sup>.
- 11) Caltrans is not proposing any landscaping between the I-5 expansion and the CECP site. The CECP owner will be providing the landscaping.

cc:	Signed: Name: Andrea Koch
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**EXHIBIT # 4003 (TN# 203790, PG 2, CALTRANS PHONE CONVERSATION WITH JULIE BAKER) EXHIBIT # 4007 (TN#203696, Conditions of Certification VIS-5, 7-07,8, &**

Power of Vision

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March 8, 2015

**Power of Vision's Conversation with Arturo Jacobo, CalTrans Project Manager for I-5 Widening**

Julie Baker and Arturo Jacobo spoke by telephone on February 23, 2015 concerning the effects I-5 widening will have on the view shed and the ability of either CalTrans or NRG to properly screen the project. The conversation was in response to a letter sent by Power of Vision (TN # 203646) to CalTrans asking for a determination as to who will mitigate the view shed with the combined projects of the amended CECP and I-5 widening.

According to Mr. Jacobo, there is no specific mitigation planned by CalTrans when I-5 will be widened on the west side, tentatively scheduled for 2025. He stated that several of the tall mature trees that currently shield the property would be removed. He said there is no room to mitigate on CalTrans property and it will be up to NRG to plant trees/landscaping on their property.

**EXHIBIT # 4007 (TN#203696, Conditions of Certification VIS-5, 7-07,8, &90)**

**Cumulative Impact Buffer Zone, Coordination with Caltrans, and Mitigation Plan**

**VIS-5** In order to address potential cumulative visual impacts resulting from I-5 widening, the applicant project owner shall maintain a permanent buffer zone, including the existing vegetative visual screening, on the eastern portion of the CECP site, between the existing NRG fence line and storage tank perimeter road. This measure shall be coordinated with Conditions of Certification LAND-1 and HAZ- 8, requiring construction of a tall wall/safety barrier at the future right-of-way. The existing landscape screening within the buffer zone shall be maintained and enhanced per Condition of Certification VIS-2 after start of project construction. The buffer zone shall be kept available to maintain existing visual screening, accommodate future possible I-5 widening to the extent necessary, and to accommodate both future hazard protection features and visual screening.

In addition, the applicant project owner shall work with Caltrans to develop a mitigation plan for accommodating the widening project while maintaining visual screening of the CECP to acceptable levels over the long term following I-5 widening. This plan could include complete or partial avoidance of the CECP site, complete or partial berm retention or replacement, complete or partial retention of existing landscape screening, and replacement screening as needed. The objective of the plan shall be to accommodate the I-5 widening within the designated buffer zone to the extent that encroachment is unavoidable, while providing needed hazard protection and acceptable levels of visual screening of the power plant.

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; and to substantially replace any existing tree canopy on the eastern CECP boundary lost to highway expansion. The landscape buffer may occupy portions of the CECP site, the Caltrans right-of-way, or both. The solution developed under Condition of Certification VIS-5 shall not preclude relocation or undergrounding of transmission poles, or other features, if necessary to provide the stipulated visual buffer or achieve adequate long-term project screening.

If construction of a new landscaped berm west of the existing berm and proposed future Caltrans right-of-way is determined to be the most feasible measure to address potential cumulative impacts of the I-5 Widening Project, then design and construction of the new berm shall be implemented at the earliest feasible time, and no later than start of project operation, in order to maximize growing time for trees planted on the new berm. Landscaping of the buffer zone a replacement berm shall include installation of large-container (24-inch box or larger, as needed), fast-growing evergreen trees in sufficient density to provide comparable or better visual screening of the CECP site than currently exists, within the shortest feasible period. Trees shall be selected and located so as to achieve substantial screening within a period of five years from start of project operation the time of planting.

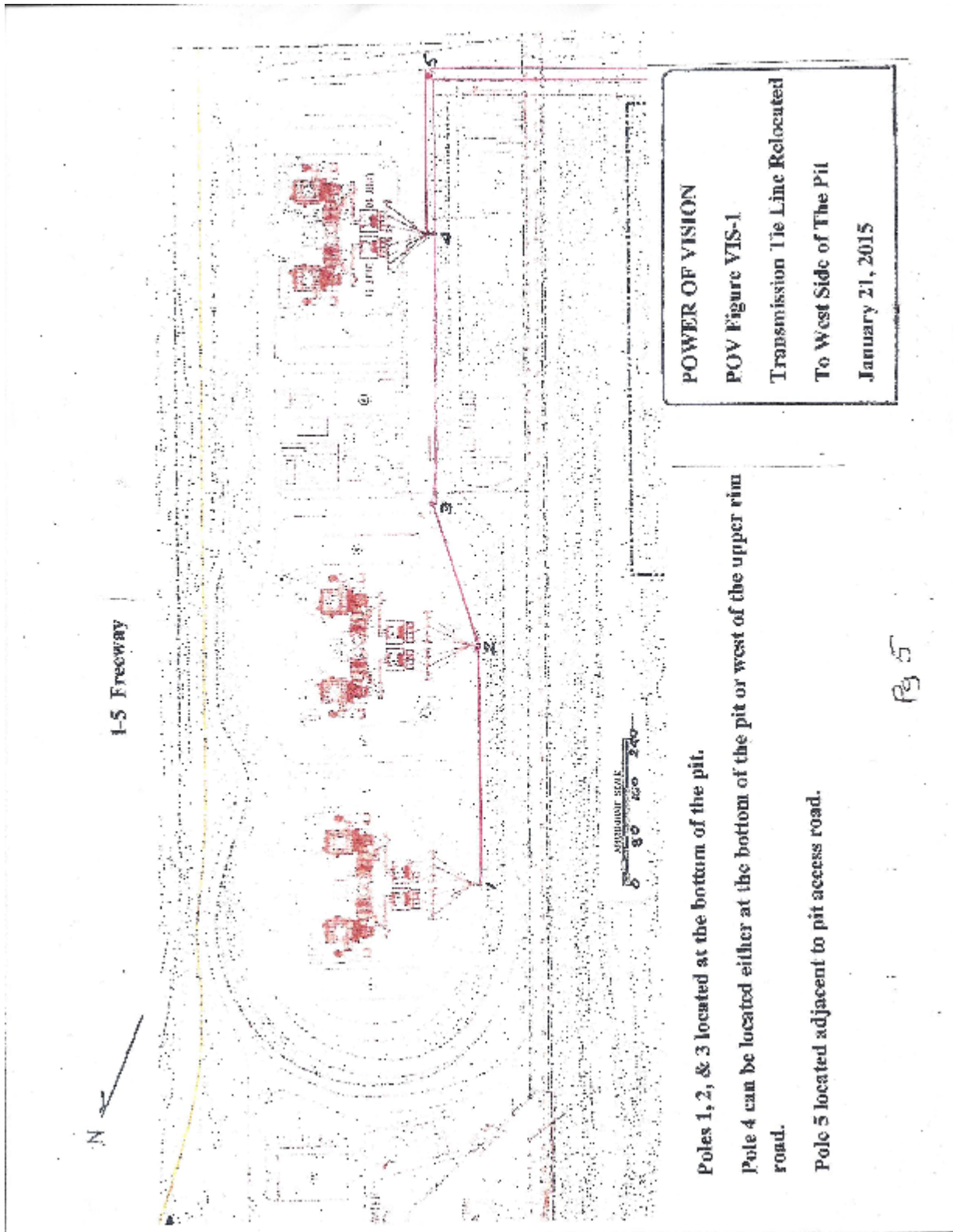


The plan shall, at a minimum, include the following components:

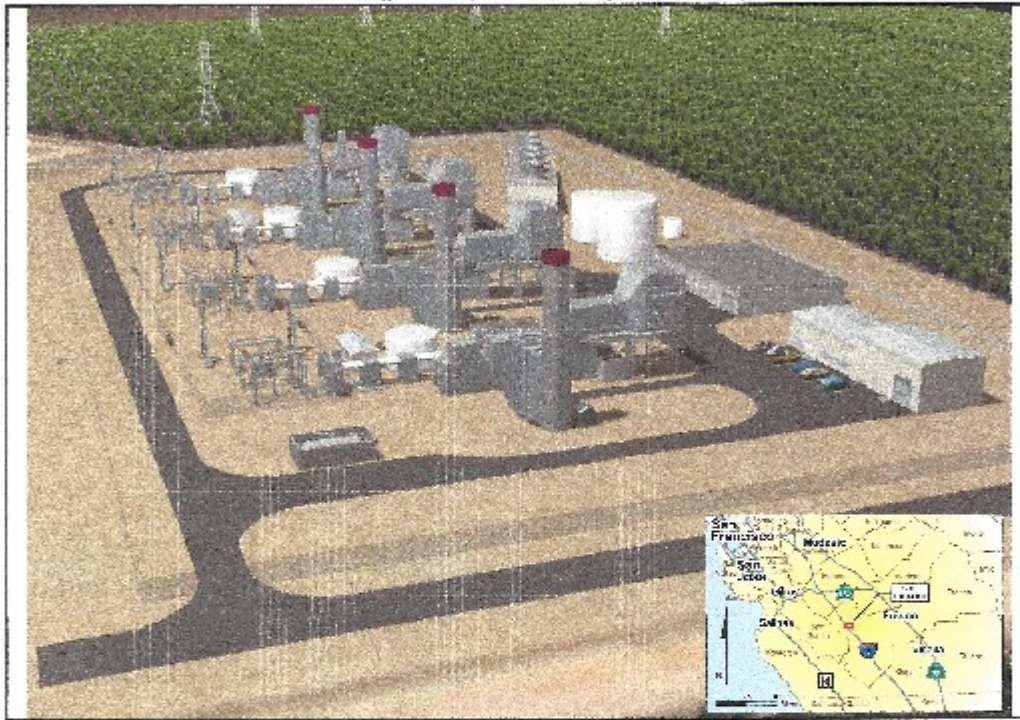
- a) a record of discussions, meetings and planning activities conducted with Caltrans;
- b) the conclusions of these coordination activities;
- c) a detailed Mitigation Plan providing plans, elevations, cross-sections or other details, including a detailed list of plants and container size, sufficient to fully convey how the objectives of effective visual screening of the CECP are to be achieved. To the extent possible, the plans shall comply with the city of Carlsbad Landscape Manual as applicable. The plan shall specifically address visual design of security barriers required under Condition of Certification HAZ-8 to ensure their aesthetic quality and compatibility. To the extent feasible, the plans shall conform with the intent of the Caltrans Design Guidelines for the I-5 NCC Project, Coastal Mesa Theme Unit (Caltrans 2013).
- d) a proposed construction schedule.

**Verification:** At the earliest feasible time, applicant the project owner shall coordinate with Caltrans to discuss specific hazard and visual mitigation strategies. ~~Following publication of the I-5 Widening DEIS, applicant~~ The project owner shall work with Caltrans to devise a specific Cumulative Impact Mitigation Plan for accommodating hazard protection and visual screening, to be implemented at the time of I-5 widening.

Following coordination and plan development with Caltrans, the project owner shall submit a draft of the Cumulative Impact Mitigation Plan to the city of Carlsbad for review and comment, and to the CPM for review and approval, at least 180 days prior to completion by Caltrans of I-5 widening in the area of the CECP boundary. The project owner shall submit any required revisions within 30 days of notification by the CPM. The project owner shall not implement the plan until receiving approval from the CPM. After receiving approval, the project owner shall complete implementation of the mitigation plan at the earliest feasible opportunity, but not later than 180 days after plan approval. The project owner shall notify the CPM within seven days after implementing the approved plan that the plan is ready for inspection. ~~Planting must be completed and approved by the CPM prior to start of project operation.~~

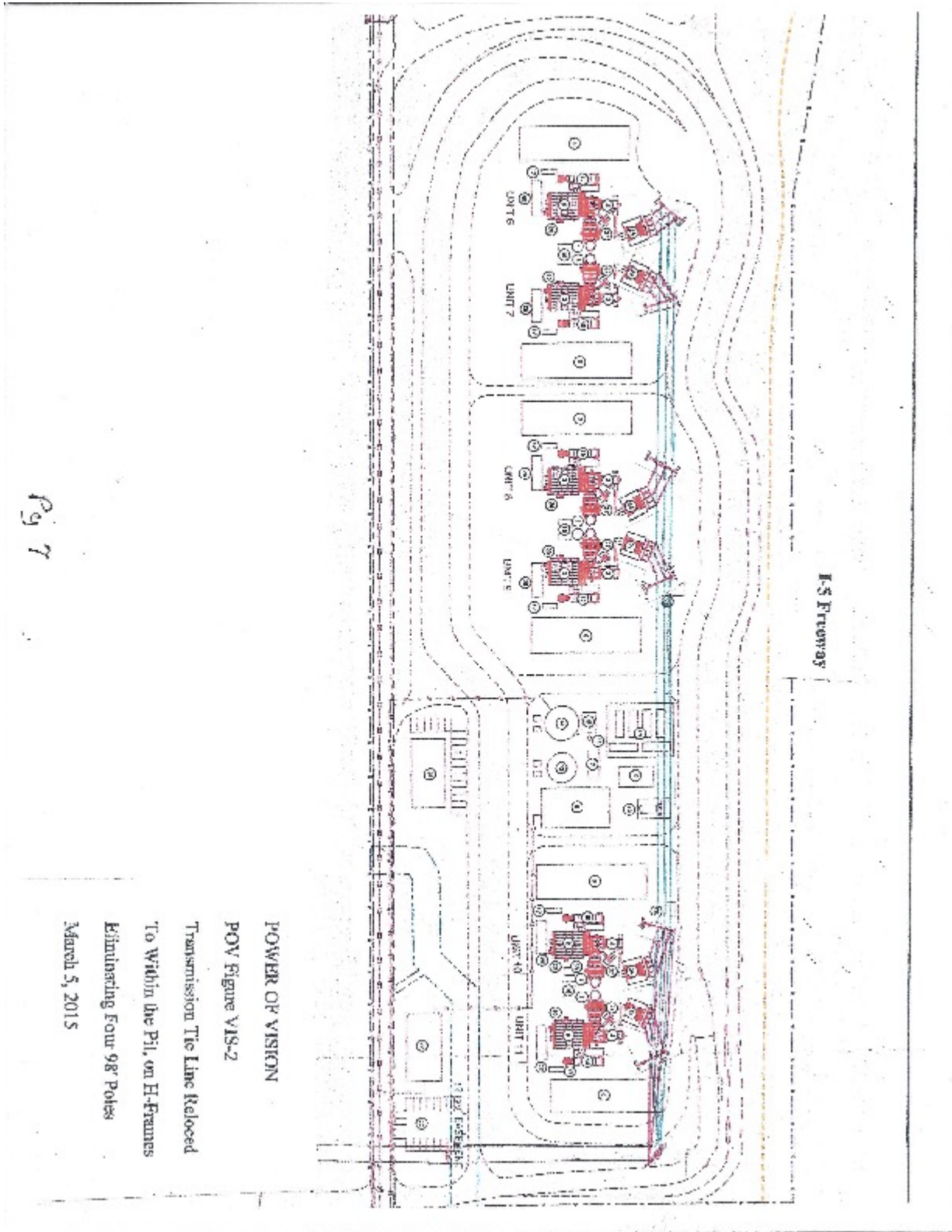


PROJECT DESCRIPTION - FIGURE 4  
Panoche Energy Center Project - Artist Rendering of Proposed Facility



CALIFORNIA ENERGY COMMISSION  
924 400-1122

*Frederic* Panoche Energy Center



Pg 7

POWER OF VISION  
POV Figure VIS-2  
Transmission Tie Line Reloced  
To Within the Pil. on H-Frames  
Eliminating Four 98' Poles  
March 5, 2015

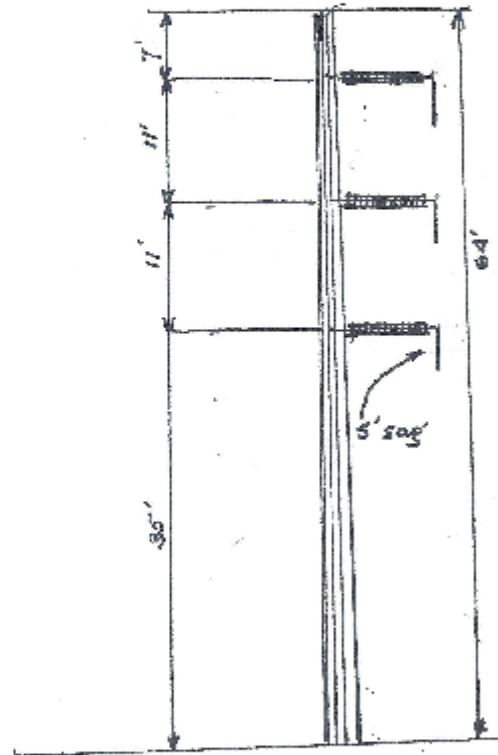
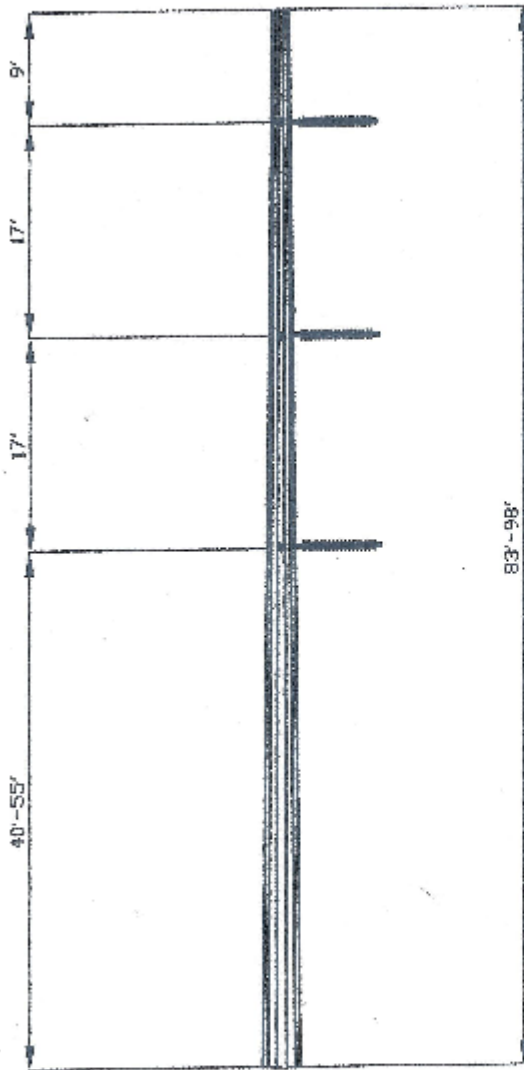


Figure 3.1-8  
230kV Line Cross-section Deadend Pole  
Amended Carlsbad Energy Center Project  
Carlsbad, California (07-AFC-06C)  
Petition to Amend

CH2MHILL

230kV Line Pole

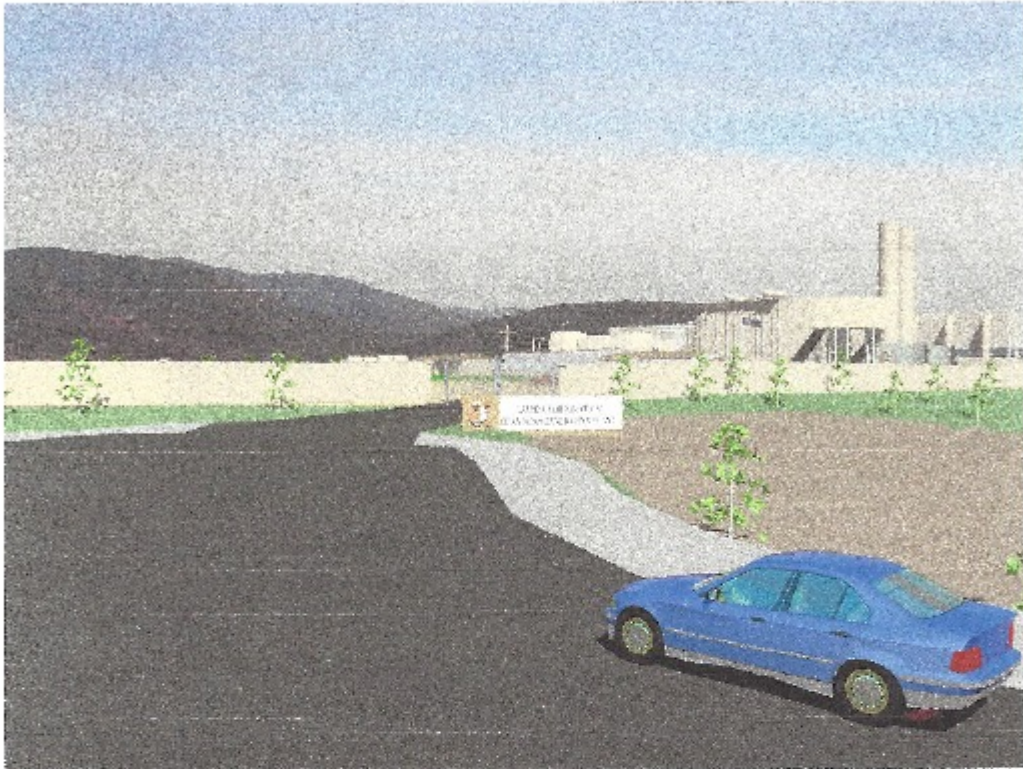
Compliant with GO-95 Requirements

PG 8

**EXHIBIT # 4001, (TN# 203791, PG 9)**

Southern Cal de Sac.jpg (JPEG Image, 1024 x 768 pixels)

<http://www.slapouri.com/newsite/images/Onay-Mesa-Power-Plant-Sou...>



PG 9