

DOCKETED

Docket Number:	07-AFC-06C
Project Title:	Carlsbad Energy Center - Compliance
TN #:	203851
Document Title:	Terramar Testimony, Exhibit List
Description:	Terramar's Testimony and Exhibit List
Filer:	Kerry Siekmann
Organization:	Terramar Association
Submitter Role:	Intervenor
Submission Date:	3/11/2015 8:53:39 PM
Docketed Date:	3/11/2015

Terramar Exhibit List, List of Abbreviations & Testimony

Terramar Exhibit List

Exhibit #	Docket TN#	Docket Date	Title
3000	203771	3/5/15	Testimony of City of Carlsbad&Housing &Redevelopment Agency Regarding Docket 07-AFC-6 (TN54725)
3001	203770	3/5/15	City of Carlsbad Letter to USEPA(TN51964)
3002	203772	2/23/15	5/31/12 Commission Decision approving Carlsbad Energy Center Application for Certification(CEC_800-2011-004-CMF)
3003	203696	2/17/15	CECP Amendment,FSA
3004			FDOC
3005	203474	12/22/14	Details on Future I-5 Widening
3006	203590	1/30/15	Sierra Club Comments on PSA
3007	203484	12/29/14	Caltran's Design for I-5 Widening near Carlsbad Site
3008	203788	3/9/15	City of Carlsbad&Redevelopment Agency's Opening Brief Opposing CECP (TN58141)
3009	203789	3/9/15	Proposed Decision Denyng without prejudice SDG&E Agreement with Carlsbad Energy Center, LLC
3010	203441	12/12/14	Preliminary Determination of Compliance from APCD
3011	203527	1/15/15	Committee Order Following the Preliminary staff Assessment
3012	203812	3/11/15	CECP Emissions Baseline Calculations for (TN45927)
3013	203813	3/11/15	2/11/09 Sierra Research letter to Dr. Moore, SDAPCD regarding revised Nox Emissions Baseline Calculations for CECP (TN50110)
3014	203814	3/11/15	USEPA letter to NRG regarding PSD(TN61433)
3015	203815	3/11/15	Revised Emissions Baseline Calculations for Encina 1-3(TN47781)
3016	203820	3/11/15	Photo 1 of Project Site traveling Southbound on I-5
3017	203821	3/11/15	Photo 2 of Project Site traveling Southbound on I-5
3018	203822	3/11/15	Photo 3 of Project Site traveling Southbound on I-5
3019	203823	3/11/15	Photo 4 of Project Site traveling Southbound on I-5
3020	203824	3/11/15	Photo 5 of Project Site traveling Southbound on I-5
3021	203825	3/11/15	Photo 6 of Project Site traveling Southbound on I-5
3022	203826	3/11/15	Photo 7 of Project Site traveling Southbound on I-5
3023	203827	3/11/15	Photo 8 of Project Site traveling Southbound on I-5
3024	203828	3/11/15	Photo 9 of Project Site traveling Southbound on I-5
3025	203829	3/11/15	Photo 10 of Project Site traveling Southbound on I-5
3026	203830	3/11/15	Photo 11 of Project Site traveling Southbound on I-5

3027	203831	3/11/15	Photo 12 of Project Site traveling Southbound on I-5
3028	203832	3/11/15	Photo 13 of Project Site traveling Southbound on I-5
3029	203833	3/11/15	Photo 14 of Project Site traveling Southbound on I-5
3030	203834	3/11/15	Photo 15 of Project Site traveling Southbound on I-5
3031	203836	3/11/15	Photo 16 of Project Site traveling Southbound on I-5
3032	203837	3/11/15	Photo 17 of Project Site traveling Southbound on I-5
3033	203838	3/11/15	Photo 18 of Project Site traveling Southbound on I-5
3034	203839	3/11/15	Photo 19 of Project Site traveling Southbound on I-5
3035	203840	3/11/15	Photo 20 of Project Site traveling Southbound on I-5
3036	203841	3/11/15	Photo 21 of Project Site traveling Southbound on I-5
3037	203842	3/11/15	Photo 22 of Project Site traveling Southbound on I-5
			Transcript of the August 7, 2014 Informational
3038	20299	8/27/14	Hearing

Terramar List of Abbreviations

ACECP	Amended Carlsbad Energy Center Project
APCD	San Diego Air Pollution Control District
BACT	Best Available Control Technology
CEC	California Energy Commission
CECP	The original Carlsbad Energy Center Project
CEQA	California Environmental Quality Act
Committee	The California Energy Commissioners hearing the Amended Carlsbad Energy Center licensing procedures.
CPUC	California Public Utilities Commission
FSA	Final Staff Assessment
FDOC	Final Determination of Compliance
LAER	Lowest Achievable Emission Rate
NSR	New Source Review
PDOC	Preliminary Determination of Compliance

PSA

Preliminary Staff Assessment

PSD

Prevention of Significant Deterioration

□

FSA Testimony prepared by Terramar

Executive Summary

At the time of FSA Publication, the San Diego APCD had not issued a FDOC for the ACECP. The APCD estimates the FDOC will be issued on March 13, 2015. Terramar reminds the Committee and Staff that CEQA requires this document must be filed before reaching a conclusion.

Exhibit #3003, FSA Executive Summary p. 1-1,1-2

CEQA provides that once a CEQA process has reached conclusion, there should be no new environmental document absent specific enumerated circumstances. (Cal. Code Regs., tit. 14, § 15162.) Such circumstances include the situation where substantial changes are proposed in the project which may result in new significant environmental effects, or the increased severity of such effects; or where information of substantial importance, unknown at the time of the previous environmental analysis, could result in new significant environmental effects not previously analyzed. (Ibid.) The CEQA Guidelines also provide that a “supplement” to the environmental document may be adequate in situations described above, but only minor changes or additions in the discussion or mitigation would be necessary to make the previous environmental analysis adequate. (Cal. Code Regs., tit. 14, §15163.)

According to Exhibit #3009, Proposed Decision Denying w/o Prejudice SDG&E Agreement with Carlsbad Energy Center, LLC, TN #203789, the ACECP will not be able to succeed in meeting its stated objective for long-term contract opportunities as SDG&E tolling agreement offered to the ACECP has received preliminary denial by the CPUC. In fact, due to ACECP’s recent denial at the CPUC, the project clearly can not meet any of the “necessity of proposed changes” required in the Ca. Code of Regs., title 20, sections 1769(a)(1)(B) and 1769(a)(1)(C) of the CEC Siting Regulations., if the denial is finalized by the CPUC.

Terramar suggests the Project Owner amend the project in this proceeding and submit the suggested alternative of a smaller project to SDG&E that can be integrated with more renewable resources to meet the CPUC Track 4 decision allowing procurement of 300-600MW of any resource, and meet the stated objectives as stated by the FSA.

Exhibit #3003, Executive Summary page 1-3;

NECESSITY OF PROPOSED CHANGES

California Code of Regulations, title 20, sections 1769(a)(1)(B) and 1769(a)(1)(C) of the California Energy Commission (Energy Commission) Siting Regulations, require a discussion of the necessity for the proposed changes to the project and whether the modifications sought by a project owner/petitioner are based on information known by the petitioner during the original certification proceeding. In this amendment proceeding, the purpose of the proposed amended CECP changes are to ensure regional electrical reliability and provide for fast-response peaking generation that best responds to the unanticipated retirement of the San Onofre Nuclear ...

The amended CECP would also further the state's policy goals regarding eliminating impacts of once-through power plant cooling; reduce visual blight and other environmental impacts at the Encina Power Station site; and help meet documented local capacity requirements in the San Diego County region by adding new generation to help off-set the June 7, 2013 closure of the 2,200-MW SONGS facility located 25 miles north of the project site in San Clemente, California.

Exhibit #3003, Executive Summary page 1-4,

The project objectives for the proposed amended CECP are as follows: ...

- *Meet the commercial qualifications for long-term power contract opportunities in Southern California.*
- *Modify the project design to reduce potential environmental impacts and integrate community-desired development on and adjacent to the site.*

In its Project Description Section under Project Background, CEC staff brings into play the “local capacity requirements” or “need” issue. Even though staff has reworded “need” from the PSA to “local capacity requirements” in the FSA, Terramar points out that they are equivalent terms. Siting Regulations require CEC discuss the necessity for the proposed changes to the project and CEC staff has discussed “need” or “local capacity requirements” as the reason for the necessity of proposed changes. Therefore, Terramar will discuss “need” or “local capacity requirements” in our testimony.

Exhibit #3003, Project Description page 3-2;

PROJECT BACKGROUND

and help meet documented local capacity requirements in the San Diego County region...

In the original proceeding, CEC licensed the CECP. Terramar, Power of Vision, Earthjustice, the City of Carlsbad, Rob Simpson and many of the public informed the CEC that the CECP was the wrong plant. The California Energy Commission instead chose to license the CECP. Now Terramar would like to remind the CEC that there was never a viable offer to build the CECP.

Now Terramar and others are telling you that the ACECP is too large. On Friday, the CPUC denied SDG&E's tolling agreement with NRG for the amended CECP.

Terramar has suggested and suggests again that the Project Owner and the Committee consider the alternative of a smaller plant. A smaller plant combined with renewable resources will greatly improve the chances that the project will be able to meet the project's objectives.

Air Quality

Baseline Issues

Terramar is waiting for the publication of the FDOC from the Air Pollution Control District. Of concern is the APCD choice of baseline years for the ACECP. Terramar expects the APCD to change baseline years from the two-year average in the PDOC to a five-year average in the FDOC. Terramar insists this is necessary for the APCD to remain consistent with their rules. It appears that both times the APCD has made baseline choices that benefit the project rather than the public.

For the original CECP proceeding, the APCD insisted on a five-year baseline.

Exhibit #3012, TN# , Docket #07-AFC-06C, TN# , Docketed 3/11/15

CECP Emissions Baseline Calculations for (TN45927)

Exhibit #3015, Docket #07-AFC-06, TN# , Docketed 3/11/15

*Revised Emissions Baseline Calculations for Encina Units 1-3
(TN#47781)*

The city of Carlsbad, Power of Vision and Terramar challenged the APCD's baseline choice as it benefitted the project by allowing higher baseline emissions. The City of Carlsbad, Power of Vision and Terramar even attended a San Diego APCD Hearing to

discuss the baseline choice and met with District officials to discuss the baseline. The APCD stood firm on the five-year baseline choice.

The City of Carlsbad even appealed to the EPA regarding the baseline.

Exhibit # 3001, Docket # 07-AFC-06C, TN #203770, Docketed 3/5/2015, Title-City of Carlsbad Letter to U.S. Environmental Protection Agency (Docketed June 12, 2009 to 07-AFC-06, TN#51964)

Terramar provides two tables that appear in the PDOC for the amended CECP. The first table shows the actual emissions from Encina for the past five years.

The second table shows the 2-year averaging of each of the two years from Encina for the past 5 years.

Exhibit #3010, PDOC , Page 9, 10

Table 1: Pre-project Actual Emissions (ton/yr)

December 12, 2014

	NOx	CO	VOC	PM10/PM2.5	SOx	NH3
2009	46.96	135.25	24.33	33.63	3.16	3.22
2010	22.08	45.19	11.42	15.81	1.49	2.71
2011	32.29	277.65	17.15	23.71	2.23	4.46
2012	86.71	77.76	45.02	62.29	5.86	17.37
2013	33.11	166.45	16.45	22.80	2.14	4.29

Table 2: 2-Year Averages of Pre-project Actual Annual Emissions (ton/yr)

	NOx	CO	VOC	PM10/PM2.5	SOx	NH3
2009-2010	34.52	90.22	17.87	24.72	2.32	2.96
2010-2011	27.18	161.42	14.29	19.76	1.86	3.59
2011-2012	59.50	177.70	31.09	43.00	4.04	10.92
2012-2013	59.91	122.10	30.73	42.55	4.00	10.83

Terramar has averaged the five years as the baseline, as was done for the original CECP by the APCD. The five-year averages of Pre-project Actual Annual Emissions (ton/yr) would be these values as provided by Terramar:

NOX- 44.23 (versus APCD 2012/2013 value of 59.91)

CO-140.46 (versus APCD 2012/2013 value of 122.10)

VOC- 22.87 (versus APCD 2012/2013 value of 30.73)

PM10/PM2.5- 31.65 (versus APCD 2012/2013 value of 42.55)

Sox- 2.98 (versus APCD 2012/2013 value of 4.00)

NH3- 6.41 (versus APCD 2012/2013 value of 10.83)

By changing the baseline from a five-year for the original CECP (as shown above) to a two-year average for the amended CECP(in Table 21 below), every value for the “Licensed CECP Net Emissions Change” benefits project emissions except for CO!

In Air Quality Table 21, we see that the Amended CECP Net Emission Change for NOx would be 24.89 tons/year using the 2-year baseline.

Exhibit #3003,page 4.1-32

**Air Quality Table 21
Amended CECP Incremental Annual Emissions**

Emission Source	Pollutant (tons/year)				
	NOx	COb	VOC	SOx	PMc
Amended CECP Expected Maximum Annual	84.8a	77.83	24.06	5.59	28.35
Encina Power Station (EPS) Emissions Baselined	59.9	122.1	30.73	4.00	42.55
Amended CECP Net Emissions Change	24.89	-44.27	-6.67	1.59	-14.20
Licensed CECP Net Emissions Change	39.9	-51.51	4.8	-0.6	7.5

If the five year baseline is used then:

NOx Emissions change becomes $84.8 - 44.23 = 40.57$

CO Emissions change becomes $77.83 - 140.46 = -62.63$

VOC Emissions change becomes $24.06 - 22.87 = 1.19$

SOx Emissions change becomes $5.59 - 2.98 = 2.61$

PM10/PM2.5 Emissions change becomes $28.35 - 31.65 = -3.3$

The five-year baseline for the amended CECP raises the emission levels for NOx above the PSD threshold for NOx of 40 tons/year emission change.

The five-year baseline also appears to require the APCD to reevaluate the amended CECP for nonattainment of NSR thresholds. This could require BACT and LAER. Five-year baseline Emissions change would be 40.57 tons/yr. This is above the trigger level of 40 tons/yr.

Exhibit 3003, FSA, Air Quality page 4.1-4;

Nonattainment New Source Review (NSR) requires a permit and requires Best Available Control Technology (BACT) and offsets. Permitting and enforcement are delegated to SDAPCD.

Prevention of Significant Deterioration (PSD) requires major sources or major modifications to major sources to obtain permits for attainment pollutants. The amended CECP would be a modification of an existing major source, the Encina Power Station, and thus the trigger levels are emissions increases of 40 tons per year of NO_x or VOC or SO_x, 15 tons per year of PM₁₀, or 100 tons per year of CO.

Avoiding the five-year baseline could allow the amended CECP to avoid major modeling, mitigation offsets, PSD, NSR, LAER, and compliance.

Avoiding the five year baseline, could allow the project to avoid secondary PM_{2.5} modeling analysis..

Exhibit #3003, Air Quality page 4.1-43

U.S. EPA issued guidance on May 20th, 2014 that requires secondary PM_{2.5} impacts be addressed for sources seeking PSD permits. This guidance provides several methods, or tiers, that can be used to analyze secondary PM_{2.5} impacts; including refined air dispersion modeling methods. The amended CECP has been determined to not require PSD permitting, so this type of modeling analysis is not required. However, the District completed a preliminary analysis that indicated that the conclusions of their AQIA for PM_{2.5} and PM₁₀ would not change if the modeling analysis included secondary particulate formation (SDAPCD 2015).

Avoiding the five-year baseline for the amended CECP, could allow the project to avoid NO_x and VOC offsets;

Exhibit #3003, Air Quality page 4.1-44;

Emission Offsets

District Rules 20.1 and 20.3 require NO_x and VOC offsets for a major modification to an existing major stationary source, in this case the Encina Power Station, defined as an emission increase of more than 25 tons per year for NO_x or VOC. The net emissions increase from the amended CECP would not exceed these thresholds, so NO_x and VOC offsets are not required per District rules.

Avoiding the five-year baseline for the amended CECP, the project could avoid providing a report of its progress toward obtaining the PSD permit or the CPM

CEMS data demonstrating compliance with this condition as part of monthly compliance reports.

Exhibit #3003, Air Quality pages 4.1-45, 4.1-46;

*Staff is proposing to delete existing Condition of Certification **AQ-SC11** as PSD permitting does not apply to the amended CECP. Staff proposes a new Condition of Certification **AQ-SC11** that would require the project owner to develop and implement a leak detection and repair (LDAR) plan to reduce VOC emissions from the proposed three natural gas compressors.*

Avoiding the five-year baseline for the amended CECP, could allow the project to avoid corresponding and complying with the EPA regarding PSD review and gas turbines are not subject to LAER. The emergency engines are not subject to BACT or LAER; and the natural gas compressors are not subject to permitting under SDAPCD rules and regulations

Exhibit #3003, Air Quality pages 4.1-52-4.1-53; 4.1-54

FEDERAL

The District is responsible for issuing the Federal New Source Review (NSR) permit but is not currently delegated enforcement for the Prevention of Significant Deterioration (PSD) permitting process. The project owner has stipulated to emission levels that ensure that the amended project's net emission increase of pollutants would be below PSD permit trigger levels. The District's PDOC permit conditions have been designed to ensure that the amended project would comply with the applicable NSPS Subparts KKKK and IIIII that are delegated to the District for enforcement as part of its Title V permit responsibility. The U.S. Environmental Protection Agency's Region 9 has reviewed the PDOC and provided correspondence noting that they had no further comments at this time...

Regulation II – Permits

Rule 20.1 and 20.3 – New Source Review

Rules 20.1 and 20.3 generically apply to all sources subject to permitting under the nonattainment NSR and PSD programs in the District. PSD permitting program authority is not currently delegated from U.S. EPA to the District. However, the District has made a determination that this permitting action does not trigger PSD permitting. U.S. EPA evaluated this determination in their review of the District's PDOC and determined that they had no further comments on the District's analysis. While the District does not have federal PSD authority, they still evaluate compliance with their approved PSD rules. All portions of Rule 20.1 apply. This includes definitions and instructions for

*calculating emissions. Applicable components of Rule 20.3 are described below.
...*

The amended project is not defined as a major modification to an existing major source because net emissions increases of NOx and VOC would be below 25 tons per year due to permit emissions limits. Therefore, the gas turbines are not subject to LAER. The emergency engines are not subject to BACT or LAER; and the natural gas compressors are not subject to permitting under SDAPCD rules and regulations.

Avoiding the five-year baseline for the amended CECP, could avoid compliance certification due to the project not requiring LAER or offsets.

Exhibit #3003, Air Quality page 4.1-55;

Rule 20.3(e)(1) – Compliance Certification

The District has determined in the PDOC that a compliance certification is not required due to the project not requiring LAER or offsets.

The intent of the APCD is to protect the public from unsafe emissions, yet the baseline chosen in each project appears to benefit the project emissions. Terramar requests that the Committee refuse the FDOC if the baseline is not changed to a five-year baseline, as consistent with the CECP proceedings.

GHG's

The purpose of the Amended CECP is, in part, to replace electricity generation lost from the shuttered of San Onofre Plant. Terramar disagrees that the ACECP could create a net cumulative reduction in GHG emissions, as San Onofre had no green house gas emissions and the ACECP is fossil fuel driven.

Terramar insists that SDG&E's tolling agreement with NRG interferes with the generation of new renewables. The CPUC clearly stated in their Track #4 decision that the 300-600MW of needed generation could be either renewable or fossil fuel. SDG&E chose 100% fossil fuel generation for all 600 MW. Since SDG&E offered their tolling agreement without an RFO, Terramar suggests their action interfered with the Avenal Decision as there was no opportunity for the generation to be fulfilled with renewables and the Track 4 decision from the CPUC. CPUC confirmed this by denying the SDG&E tolling agreement with the ACECP. CPUC said there must be an RFO that allows bids from all types of generation.

Exhibit #3009 Docket #07-AFC-06C, TN #203789, Docketed 3/9/2015, p. 20 of the PDF and p. 18 of the document

The Commission did not endorse SDG&E's case for the need for fully dispatchable resources in the Track 4 proceeding. Instead, recognizing that SDG&E has been approved to fill the 298 MW authorized by D.13-03-029 from the gas-fired Pio Pico Energy Center, D.14-03-004 directed SDG&E to procure up to 100 percent of its incremental LCR need from preferred resources.

The denial by the CPUC negates this statement from the FSA. The ACECP is displacing the choice of renewables.

Exhibit #3003, Air Quality Appendix page AQ1-1;

Its addition to the system would displace other less efficient, higher GHG-emitting peaker power plant generation, facilitate the retirement of the Encina facility and facilitate the integration of renewable resources. Because the project would improve the efficiency of existing system resources, the addition of the amended CECP would contribute to a reduction of the California GHG emissions and GHG emission rate average.

Per the denial by the CPUC, the ACECP cannot be licensed at this time as it is interfering with the integration of new renewable generation.

Exhibit #3003, Air Quality Appendix page AQ1-13, AQ1-14;

Included in this sector-wide GHG emission analysis method is the determination of whether a project is consistent with the Avenal precedent decision, which requires a finding as a conclusion of law that any new natural gas-fired power plant certified by the Energy Commission "must:

- not increase the overall system heat rate for natural gas plants;*
- • not interfere with generation from existing renewables or with the integration of new renewable generation; and*
- • taking into account the two preceding factors, reduce system-wide GHG emissions.*

Per the denial by the CPUC, the ACECP cannot be licensed at this time as it is interfering with the integration of new renewable generation.

Exhibit #3003, Air Quality page AQ1-21;

The dispatch of the amended CECP would generally not result in the displacement of energy from renewable resources or large hydroelectric

generation. Most renewable resources have must-take contracts with utilities, which must purchase all the energy produced by these renewable generators.

Conclusion

Terramar is waiting to see if the APCD corrects the baseline emissions to five years in their FDOC to be consistent with their own rules. If not, then Terramar will make a motion that the FDOC be denied and that the APCD use the 5-year baseline.

Based on the denial of SDG&E's tolling agreement with NRG, Terramar suggests that the Project Owner reconsider the suggested alternative of a smaller project while keeping the same per turbine requirements and restrictions per the FSA.

Terramar residents will be very aware of this rule on Specific Air Contaminants during the five-year project. We ask the District to inform us of the penalty that is enforced if this rule is broken. We ask who will enforce this rule and how.

Air Quality page 4.1-56;

Rule 55 – Specific Air Contaminants

This rule restricts visible dust from construction activities from reaching beyond the property line for more than three minutes in any hour, and requires control of visible roadway dust from track-out/carry-out from truck wheels and truck spillage. Staff recommended fugitive dust conditions (AQ-SC1 through AQ-SC4) are as stringent as or more stringent than the requirements of this rule.

Alternatives- Reduced Capacity

The proposed size of the ACECP is too large to properly mitigate visual blight and safety concerns.

The site is too small to accommodate the project and the transmission lines inside the pit. By locating the transmission lines outside the pit and along the I-5 creates severe visual blight.

The site is too small to accommodate needed visual mitigation once the I-5 widening occurs. With the I-5 widening, the project creates significant visual blight and the site is not large enough to accommodate proper visual mitigation.

The site is too small for the project to be properly protected with the I-5 widening. The Project Owner is required to protect the site with a berm or similar protection. With the I-5 widening, current berm protection will be lost and there isn't enough room to recreate the berm. This leaves the site open to safety concerns from the I-5. An example of concern would be a semi that may veer off the I-5.

Exhibit #3003, Visual Resources 4.13-37, TN203696,

*Adequate screening as required in Condition **VIS-5** could possibly be achievable within the CECP site alone or within Caltrans right-of-way alone, but very likely will require a combination of both under the highly constrained conditions posed by the footprints of the two projects. Staff's current understanding thus suggests that adequate implementation of **VIS-5** could require changes or alterations to layouts of BOTH the CECP and I-5 widening projects. The adequate implementation of **VIS-5** is thus at least partially within the responsibility and jurisdiction of Caltrans, which should coordinate with project owner to accommodate the mitigation required under this condition of certification. The ultimate, optimal mitigation plan thus cannot be specifically determined until negotiations between Caltrans and the project owner for right-of-way acquisition are conducted.*

Terramar suggests that staff reconsider the alternative of 400MW or smaller for the project. This could mitigate all of these serious site issues in the areas of visual resources and safety.

Terramar is aware that staff considered the 400MW alternative in the FSA. Terramar appreciates staff's consideration of the alternative of eliminating Units 10 and 11.

Exhibit #3003, Alternatives Section p. 4.2-20

However, eliminating Units 10 and 11 would not reduce impacts in the most constrained area for visual mitigation, in the area east of Units 6 through 9. From a visual perspective, elimination of Units 6 and 7 or 8 and 9 would cause a greater reduction in visual impacts.

Terramar did not specifically suggest the elimination of units 10 and 11. Terramar suggests the elimination of at least two units but keeping the site size at the upgraded 30 acre size. This offers the Project Owner the opportunity to reconfigure the entire site with the transmission poles in the "pit" and the remaining units reconfigured to allow for the I-5 widening visual and safety concerns. Staff suggested that units 6 & 7 or 8 & 9 would cause a greater reduction in visual impacts. Terramar is suggesting a superior alternative would be a reconfiguration with at least two less units using the entire 30-acre project site.

Exhibit #3003, Alternatives Section p. 4.2-20

From a visual perspective, elimination of Units 6 and 7 or 8 and 9 would cause a greater reduction in visual impacts.

Terramar disputes staff's suggestion that mitigation created by I-5 widening is the responsibility of Caltrans. The I-5 widening would create no needed visual mitigation without the blighted presence of the ACECP. It is the visual blight from the ACECP that creates the need for visual and safety mitigation with the widening of the I-5 project that is a known future project and therefore the Project Owner must mitigate for it. (Terramar discusses this in the Visual Resources section)

The CEC cannot make Caltrans mitigate or even co-mitigate. CEC must make the mitigation the responsibility of the Project Owner. Then the Project Owner can work with Caltrans on mitigation. (Terramar discusses this in the Visual Resources section)

Exhibit #3003, Alternatives Section p. 4.2-20

*The **Visual Resources** section of this FSA states that significant adverse cumulative visual impacts could result, not from the amended CECP, but from the planned Caltrans North Coast Interstate 5 (I-5) High-occupancy Vehicle (HOV)/Managed Lanes Project (requiring the highway to be widened), in combination with the proposed amended CECP.*

Terramar disputes staff's statement that a reduced capacity alternative 'would not avoid or substantially lessen the impacts to a level that staff could eliminate the recommendation for a finding of (potential) significant cumulative environmental effect requiring changes or alterations of the project'. At this point staff is unaware of the effects of a reduced reconfiguration, as they have not yet fully evaluated it as it would be entirely different from the elimination of Units 10 & 11.

Exhibit #3003, Alternatives Section p. 4.2-20,21

*While the reduced capacity alternative would somewhat reduce potential cumulative visual impacts, it would not avoid or substantially lessen the impacts to a level such that staff could eliminate the recommendation for a finding of (potential) significant cumulative environmental effect requiring changes or alterations of the project within the responsibility or jurisdiction of another public agency, which can and should provide such mitigation, as stated in the **Visual Resources** section. Moreover, the **Visual Resources** section concludes that visual impacts for the amended CECP, even when combined with those of a future I-5 freeway widening, can likely be effectively mitigated by vegetative screening provided by either Caltrans or NRG.*

Terramar disputes staff's assumption that a reduced capacity alternative should be configured to allow for expansion based on future "need" as this is an issue that should be outside the realm of the CEC. Though CEC staff has included future "need" or "local capacity requirements" in their required project objectives, Terramar refers staff to the recent denial of the CPUC for the project.

Exhibit #3003, Project Description page 3-2;

PROJECT BACKGROUND

and help meet documented local capacity requirements in the San Diego County region...

Terramar suggests staff change their assumption that a reduced capacity alternative could require capacity in an undeveloped location. Due to the recent preliminary denial by CPUC regarding SDG&E tolling agreement offered to ACECP (Exhibit# 3009), it is quite likely that capacity could be located in an "undeveloped location in the San Diego region.

Exhibit #3003, Alternatives Section p. 4.2-20,21

A reduced capacity alternative of four GE LMS100s instead of six GE LMS100s on the site of the amended CECP would likely be configured to allow for possible future expansion and installation of the two additional GE LMS100s if the alternative should fail to provide the needed capacity. If this was not the case, then the reduced capacity alternative could potentially require the development of additional capacity at another, possibly undeveloped location in the San Diego region.

Due to the recent preliminary denial of SDG&E's tolling agreement for the ACECP, it appears that the Project Owner will have plenty of time to redesign the project to a reduced capacity.

Exhibit #3003, Alternatives Section page 4.2-21;

*As described in the **Project Description** section of this FSA, the project owner and the city of Carlsbad have reached a settlement agreement that includes obligations such as the decommissioning and demolition of the EPS, which would enable compliance with the State Water Board's existing December 31, 2017, deadline for reducing the impingement and entrainment effects of OTC by the EPS. It would probably be infeasible for the project owner to redesign the project from six units to four units and have adequate time left to secure the necessary Energy Commission license amendment and other permits needed to construct a reduced capacity alternative in time to meet the State Water*

Board's deadline. In addition, two fewer units would result in less operational flexibility, because CA ISO would not have the option of dispatching all six units, if needed. Significant project schedule delays would likely render this alternative financially infeasible.

At the August 7, 2014 informational hearing, Terramar Intervenor Siekmann asked if the project can be approved for less megawatts.

MS. SIEKMANN: My comments are more in the way of questions. First of all, as this doesn't happen very often, we are not clear on what this amendment means. If this amendment is denied, what will happen to the original project? And another question is: If this amendment is approved for less megawatts, what does that mean? Does that mean that NRG can choose, you know, the original improved plant or choose the amended? So there are many clarifications that it would be wonderful before we start going through the issues that we have with this to understand what we are actually requesting happen. ...

HEARING OFFICER KRAMER: And I will take a stab at the first question; and Mr. McKinsey can correct me if I'm wrong. My understanding is that, if the permit is -- if an amendment to the permit is approved, then what they have a permit to build is just the amended project. They don't get to choose the old one and the new one. Now, there are some cases where parts of a project, we might approve alternatives, like say you can get your water from here or there. I think they are asking for that in this case; that they have the choice of reclaimed water, which is their preference. But they want to be able to fall back to desalinated water if it is impossible to get reclaimed water. So, basically, the old project will disappear from the radar if the amendment is approved. Mr. McKinsey, do you agree?

MR. MCKINSEY: I would agree if I can turn my microphone on, but I can't. There we go. Yeah. In fact, I think, as stated, our position would be that, legally speaking, when the Committee and then the Commission issues an amendment to a decision, that is now the decision document that the project owner has to comply with. That decision document doesn't give optionality to say you can build A or you can build B. That isn't a choice. You only have a choice to comply with the decision as it now currently exists once approved.

HEARING OFFICER KRAMER: And all you are asking for is to build B, if you will.

MR. McKINSEY: Correct. All we are asking for is to build what we are calling the "Amended Carlsbad Energy Project," the 632 megawatt peaker project.

Exhibit #3038, TN#20299, Transcript of the August 7, 2014 Informational Hearings, pages 51-54

Conclusion

Terramar suggests that staff reconsider and expand their consideration of the reduced capacity alternative as a superior alternative for all the reasons stated in our Alternatives Testimony. We appreciate the Committee Order following the PSA asking staff to expand their discussion of alternatives and ask CEC staff to reconsider the "superior" reduced capacity alternative based on the CPUC proposed denial.

Exhibit #3003, Alternatives Section page 4.2-21;

Staff eliminated the reduced capacity alternative from further detailed consideration because a smaller plant would not avoid or substantially reduce significant environmental impacts. This alternative could potentially require future expansion or the development of additional capacity at another, possibly undeveloped location in the San Diego region. Compared to the amended CECP, potential benefits in the areas of Air Quality and Public Health are speculative and would likely be minimal. Project schedule delays associated with the reduced capacity alternative would reduce its potential feasibility and viability as an alternative to the amended CECP.

Exhibit #3011, Committee Order Following the PSA, pages 5-6;

The PSA discusses alternative sites by referring to the discussion in the 2012 Decision. It also suggests that it is not necessary to discuss alternative sites due to the project's "strong relationship to the existing industrial site," citing Public Resources Code section 25540.6. Please clarify which of these two approaches staff is recommending and discuss whether any of the 2012 Decision's discussions and conclusions regarding the alternative sites require revisions.

Regarding the demand-side management (DSM) and distributed generation (DG) alternatives, we direct that the discussion of those alternatives be expanded to include

6 <http://www.energy.ca.gov/2011publications/CEC-800-2011-004/CEC-800-2011-004-PMPD.pdf> 7 TN203385,p.65,lns.9-13 3

current information about the barriers to more extensive use of those resources, timing issues, and the efforts that are being made to overcome those barriers. The PSA discusses whether these alternatives satisfy the project objectives in general conclusory terms; we direct that the FSA contain a more detailed discussion regarding satisfaction of each of the identified objectives.

Regarding the Project Objectives, use of “generating” and “generation” in the first four objectives unnecessarily excludes DSM from consideration. DSM should be accepted or rejected on its performance characteristics rather than whether it is a generating resource. In the first objective, please clarify what is meant by the use of “expanding.” The third to last objective appears to merely duplicate themes contained in the first and second objectives.

Land Use

Per the FSA staff contends the ACECP is consistent with the Coastal Act.

Exhibit #3003, Land Use page 4.6-14;

Given the lower profile of the amended CECP compared to the licensed CECP, and the proposed cessation of once-through cooling by the existing EPS, staff concludes that the amended CECP would greatly reduce or avoid the environmental impacts of the previously licensed project and those of the existing facility, and that the amended CECP would be consistent with the Coastal Act. Further, in its 2012 Decision the Commission found that Section 30260 of the Coastal Act, which encourages coastal-dependent industrial facilities to locate or expand within existing sites, does not prohibit non-coastal dependent facilities from locating within the Coastal zone.

Terramar disputes that the ACECP (as well as the CECP) are coastally dependent and we state that both projects violate the Coastal Act. We refer to the testimony from the City of Carlsbad provided by Mr. Faust (former Chief Counsel for the California Coastal Commission and expert witness for the City of Carlsbad) in the CECP Hearings in 2010.

Exhibit # 3000, Docket #-07-AFC-06C, TN #203771, Docketed 3/5/2015

Title- Testimony of the City of Carlsbad and the Housing & Redevelopment Agency Regarding Docket No. 07-AFC-06 (Docketed. 07-AFC-6 on 01/06/2010 for the CECP Hearings, TN#54725)

Mr. Ralph Faust, former Chief Council for the California Coastal Commission from 1986-2006

Beginning on page (72)5 of Mr. Faust's testimony as a witness for the City of Carlsbad;

Q10. What findings are required by the CCC when making a project specific determination on conformance with the Coastal Act?

A10. When the Commission makes a determination on a power plant project proposed to be located in the coastal zone, it must prepare the report specified in PRC section 30413 (d). That section requires a consideration of, and findings regarding seven specified criteria. These are:

The compatibility of the proposed site and related facilities with the goal of protecting coastal resources.

The degree to which the proposed site and related facilities would conflict with other existing or planned coastal-dependent land uses at or near the site.

The potential adverse effects that the proposed site and related facilities would have on aesthetic values.

...

Faust page(73) 6;

Q12. What process would the Coastal Commission typically use to make a specific determination of conformance with the Coastal Act on a proposed project?

...

For the findings required by PRC section 30413 (d) (3) on aesthetic values, the CCC would evaluate the proposed project with respect to the criteria of PRC section 30251. In general this section requires that scenic and visual qualities of coastal areas be protected as a resource of public importance.

...

Faust page (75)8;

Q14. What time frame does the Coastal Commission consider when making its determinations?

A14. The Legislature anticipated that both use and impact evaluations would be made over the projected life of the project. Each proposed new use is considered fresh. The fact that a use may exist, and may once have been considered, for example, coastal dependent does not mean that a similar new use is automatically accorded the same status. Several of the Legislative findings in PRC section 30001 address the protection of coastal resources over time.

Faust pp (76-83) 9-16;

Q16. The term “coastal-dependent development or use” is important in Coastal Commission determinations of conformance. How does the Coastal Commission define a “coastal-dependent use”?

A16. A “coastal-dependent development or use” is defined in PRC section 30101 to mean “any development or use which requires a site on, or adjacent to, the sea to be able to function at all.” General industrial development that does not meet that strict standard is given a low priority in the coastal zone, and does not qualify for the preferential treatment accorded to coastal-dependent industrial development by PRC section 30210.

This definition is extremely important in light of the Coastal Act’s goal to locate industry away from the coast as much as possible. Industrial development that is not coastal dependent cannot be approved in the coastal zone unless, as mitigated, it is fully consistent with the Chapter 3 policies of the Act.

Q17. What would qualify a power plant to be a “coastal dependent use”?

A17. The California legislature recognized that certain industrial facilities had to be located within the coastal zone in order to exist. Examples include desalination plants, fishing support facilities and ocean transport facilities. Up until the late 1980s, power plants could logically be labeled “coastal-dependent” as they needed a great deal of water for cooling purposes. When power plant technology allowed large plants to be constructed inland without the need for large amounts of ocean water, power plants, in my view, ceased to be coastal-dependent.

Q18. In your opinion, would the CECP be considered a “coastal-dependent use”?

A18. No. Because the CECP does not require a site on or adjacent to the sea to be able to function at all, it cannot be a coastal dependent industrial use.

FAUST –(76) 9

Q19. The California Energy Commission staff recommends that the Commission make a determination that the CECP is “coastal-dependent” due to the existing infrastructure, zoning and the fact that a few previous cases determined that a project was coastal-dependent because the new plant would be located on the same site as an existing industrial facility. Would you comment on this test?

A19. Coastal dependency is defined in PRC section 30101 and that definition does not contain any financial test. Simply put, if the proposed development can function “at all” if it is not on or adjacent to the sea, then it is not coastal dependent, and it cannot benefit from the special approval requirements of PRC section 30260. Consequently the presence of “existing infrastructure” that would presumably make the project less costly to construct is irrelevant to this test. Nor is the present zoning significant. The “U” designation in the Agua Hedionda LUP was proposed by the City and certified by the Commission at a time when the only cooling technology for a thermal plant such as this required a site on or adjacent to the coast. The zoning designation is understandable in this context, but it is not compelling regarding analysis of this project. It indicates only that at the time that the Agua Hedionda LUP was approved by the City and certified by the Commission, those entities thought that this site, as opposed to other sites also on or adjacent to the sea but not adjacent to an existing power plant, was appropriate for a thermal power plant. The standard

of review for a project such as this is consistency with the policies of Chapter 3 of the Coastal Act.

As for additional power plants at existing power plant locations, whether they use the same water source or not, these plants should not be included in the definition of a coastal-dependent facility. Coastal-dependent development is defined “any development or use which requires a site on, or adjacent to, the sea to be able to function at all.” (PRC 30101) The clear reading of the statute does not allow a power plant that does not need ocean water to be found to be coastal-dependent under this definition. The convenience of using an existing but not essential water supply and existing infrastructure does not outweigh the judgment of the Legislature on coastal dependency. The impacts of the CEPC, if built, will long outlive the impacts of the present Encina facility, and the judgment of the Legislature was to have this type of development with these types of impacts at a location outside of the coastal zone if they could function at such a location.

Q20. How may the Coastal Commission approve a project that is a coastal-dependent industrial facility that is not otherwise consistent with the policies of the Coastal Act?

A20. Under the provisions of PRC section 30260, “where new or expanded coastal-dependent industrial facilities cannot feasibly be accommodated consistent with other policies of this division, they may nonetheless be permitted in accordance with (that section)...if (1) alternative locations are infeasible or more environmentally damaging; (2) to do otherwise would adversely affect the public welfare; and (3) adverse environmental effects are mitigated to the maximum extent feasible.” The Commission has the discretion, but is not required to approve coastal-dependent industrial facilities if the FAUST – (77) 10

proposed project meets all of these three criteria. However, it must be coastal-dependent in order for this provision to be invoked.

Q21. Has the Coastal Commission ever reviewed a proposed power plant at the Encina site for consistency with the policies of the Coastal Act pursuant to the provisions of PRC section 30413?

A21. Earlier I noted that the Coastal Commission adopted a report on September 11, 1990, entitled “California Coastal Commission Report to the California Energy Commission on San Diego Gas and Electric’s Proposal for a New Power Plant at Encina or South Bay in San Diego County” (89-NOI-1). This report reviewed a proposal of the San Diego Gas and Electric Company (SDG&E) for a 460 Megawatt combined cycle power plant at these two possible sites for consistency with the policies of Chapter 3 of the Coastal Act using the criteria of PRC section 30413 that reflect the policies of the Coastal Act. The project proposed by SDG&E at the Encina site was natural gas-fired, located in roughly the same location as the CECP, and had two stacks of approximately the same height as the CECP. The SDG&E proposal used more ocean water for its operation than the CECP.

Q22. Is the 1990 Coastal Commission report relevant to consideration of the Coastal Act issues raised by the proposed CEPC?

A22. In large part, it is. Although the cooling technology of the proposed CEPC is different than that of the plant earlier proposed by SDG&E for the Encina site and the volume of ocean water to be consumed is less, the location and stack height of the CECP is essentially the same as the SDG&E proposal. I have not seen a drawing of the project proposed by SDG&E but I expect that the visual appearance of the CECP is probably the same or perhaps more massive because of the dry cooling technology. In addition the relevant policies of the Coastal Act have not changed since 1990.

The circumstances associated with the CECP differ from those of the SDG&E proposal because:

1. The Encina Power Station is 20 years closer to the end of its economic life,
2. The state has adopted policies to eliminate the use of ocean water in the operation of power plants along the coast and is undertaking steps to close down the Encina Power Station,
3. There are probably more users of the coastal resources in the Carlsbad area today than in 1990 and fewer coastal resources and recreational opportunities within the coastal zone.

FAUST – (78) 11

Q23. What were the principal conclusions of the 1990 Coastal Commission report concerning the proposed SDG&E power plant at the Encina site?

A23. The 1990 report concluded that the construction of a new power plant at Encina is inconsistent with the policies of the Coastal Act. It concluded:

*“The Coastal Commission’s assessment is that the construction of a new power plant at...Encina...is inconsistent with the policies of the Coastal Act.”
(Page 8, Executive Summary)*

Based upon this, the Commission concluded that the Encina site was unsuitable for a new power plant.

Q24. In what specific ways did the Coastal Commission find that a proposed new power plant at Encina would be inconsistent with the policies of the Coastal Act that would apply to the CECP?

A24. The 1990 report found many inconsistencies with the policies of the Coastal Act. The Commission, however, made its determination primarily based on impacts to visual and marine biological resources:

“At both sites (Encina and South Bay), the existing power plants cause significant adverse impacts to the coastal resources in the vicinity of the

plants. The proposed additional units would add cumulatively to those impacts, particularly in regards to visual impacts and marine resources.” (Page 7, Executive Summary)

Regarding marine biological resources, the report found that the proposed plant expansion at Encina would significantly increase entrainment and impingement impacts upon the marine environment in Agua Hedionda Lagoon and that these impacts were not fully mitigable. However, in 1990 the Coastal Commission was reviewing a proposed power plant that would utilize once-through seawater cooling, necessitating a location from which large quantities of water could be drawn into the plant, causing the entrainment and impingement impacts. Unlike the present proposed plant, which uses dry cooling technology, the SDG&E proposal needed to be on a site adjacent to the ocean in order to draw the water necessary to cool the plant.

The Commission’s conclusions regarding the impacts on visual and aesthetic resources are likely to be more applicable to the CECP. The Commission had the following conclusions regarding SDG&E’s proposal to locate a new power plant adjacent to the existing Encina facility:

“The plant expansion would result in the addition of two 150 foot high stack structures, and a 75,000 square foot building. These new structures would increase the massiveness of the facility. While these 150 foot high stack structures and new building would represent only an incremental increase in the level of impact upon the visual resources of the area, the impact will nevertheless be significant.” (Page 33)

FAUST –(79) 12

“The Commission finds that, given the size of the proposed structures and the visually prominent nature of the site, the visual impacts of the development are not fully mitigable and that some unmitigable significant impacts to the visual environment are likely to occur. For these reasons, the Commission finds that the impacts resulting from the expansions are not consistent with Section 30251 of the Act. Furthermore, the Commission finds that the cumulative visual impact of the proposed expansion in conjunction with the existing plant is significant, and is inconsistent with the Coastal Act.” (Page 33)

“The existing Encina Power Plant with its 383-foot-high stack and massive generating facilities substantially degrades the visual quality of the beach and shoreline. The addition of the proposed combined cycle project with its two 150- foot-high stacks will add significantly to the existing impacts.” (Page 45)

Finally, in its discussion of cumulative impacts, the 1990 report noted that, while SDG&E had not responded to information requests with respect to cumulative impacts, the cumulative impacts upon coastal resources were likely to be significant in the areas of visual impacts, marine biology and air quality. With respect to visual impacts and public access, the Coastal Commission concluded that the proposed addition of a new facility with its two 150 foot high stacks would add significantly to existing impacts, and that the across-the-beach discharge would visually degrade the beach and disrupt full public access and use of the beach. The report found that the addition of the new plant would extend the size and life of the discharge channel and on a cumulative basis significantly impact beach use and the visual environment.

Q25. Did the Coastal Commission reach any conclusions on land use in its 1990 report?

A25. Yes. It stated that:

“...the Commission finds that the proposed project is consistent in concept with the use designation in the certified Land Use Plan, but that an amendment to Specific Plan No. 144 would be necessary to include the expanded facilities.” (Page 35)

Q26. Has the Coastal Commission issued a report pursuant to PRC section 30413 regarding the proposed CEPC?

A26. No. Due to a substantial workload and limited resources resulting from the State’s budget crisis, the Coastal Commission declined to submit such a report regarding the proposed CEPC. I note that the Coastal Commission has submitted a 30413(d) report in a number of proceedings where the proposed plant was in the coastal zone (Moss Landing, Morro Bay, El Segundo), but sent letters declining to participate due to financial constraints in others (South Bay, Humboldt).

FAUST – (80) 13

Q27. Would the filing of a report by the Coastal Commission add to the record in this proceeding?

A27. Yes, but given the lack of a report, it would be beneficial for the CEC to have a report which describes the proposed project’s conformance with the goals and objectives of the Coastal Act. If the Coastal Commission is not going to create such a report, an entity with experience in the implementation of coastal policies should provide the analysis. I have discussed the issue with the City staff and have evaluated their experience, and in my opinion, they are well qualified to produce such a report.

Q28. Why do you believe the City of Carlsbad has this capability?

A28. The legislative design for the implementation of the Coastal Act is for the cities and counties along the coast to develop and adopt Local Coastal Programs. Following approval of these LCPs by the Coastal Commission, the individual cities and counties then use the LCP as local planning tools to evaluate an application for construction within the coastal area within their city or county. The City of Carlsbad has a Local Coastal Program certified by the Coastal Commission and has been delegated permit issuing authority over the area covered by the certified LCP. Although the Agua Hedionda area has only a certified LUP, rather than a fully certified LCP, this does not change the capability of the City to evaluate the coastal impacts of the proposed project, because the criteria for analysis remain the same. Because of the number of applications that a city such as Carlsbad reviews each year, and the close working relationship that these local entities develop with the regional coastal offices, cities such as Carlsbad develop a very good idea of how the Coastal Commission would evaluate a project.

Q29. Have you reviewed the coastal conformity testimony prepared by the City of Carlsbad regarding the CECP project?

A29. Yes.

Q30. Is it your opinion that the City considered the analytical requirements that would otherwise be followed by the Coastal Commission if it participated in the review of the CECP?

A30. Yes.

Q31. If the Coastal Commission had sufficient budgetary resources to prepare and submit a report pursuant to PRC section 30413 with respect to the CEPC, do you think that it would reach the same overall conclusions today that it did in 1990?

A31. Yes, except to the extent that the technology or method of operation of the plant has changed and that these changes affect the analysis. I think that the Coastal Commission would likely reach a similar conclusion with respect to the direct and cumulative visual impacts, the cumulative impacts upon beach access and recreation, and the need to amend Specific Plan No. 144.

FAUST – (81) 14

While the CECP uses substantially less ocean water than the plant proposed by SDG&E, and the Encina Units 1-3 will be closed once the CECP becomes

operational, it is my opinion that the Coastal Commission would conclude that any additional withdrawal of water from the lagoon, and especially any withdrawal of water over a longer period of time than that which will occur due to the operation of the existing Encina facility would have entrainment and impingement impacts inconsistent with the marine protection policies of the Coastal Act. Such an inconsistency with the Chapter 3 policies could only be found to be consistent with the Coastal Act if the CECP were a coastal dependent industrial facility. Because the CEPC is not coastal dependent, these impacts can be entirely avoided by moving the new facility to an inland location.

Q32. Are there any issues upon which you think that the Commission would reach a new or a different conclusion that would have significance for the application of the criteria of PRC section 30413?

A32. There are several such issues. First, the assumption of the Coastal Commission in 1990 was that the proposed project was required to utilize once-through seawater cooling, and that because of this it was a coastal-dependent industrial facility within the meaning of PRC section 30101, and thus was subject to the special approval requirements of PRC section 30260. Section 30260 allows for the approval of coastal dependent industrial facilities that are not consistent with the coastal resource protection policies of the Coastal Act where certain criteria are met. These criteria include that there be no feasible and less environmentally damaging alternatives, that not to approve would adversely affect the public welfare, and that adverse environmental effects are mitigated to the maximum extent feasible.

Industrial facilities that are not coastal dependent do not qualify for approval under these criteria, and must be found to be fully consistent with the coastal resource protection policies of the Act. Although the CECP proposes to use ocean water, it could use water from other sources and it is not dependent upon once-through seawater cooling; thus the Coastal Commission could not make a similar assumption. Since this facility does not “require a site on, or adjacent to, the sea to be able to function at all”, it is not coastal dependent, and cannot be approved utilizing PRC section 30260.

Since the CECP is also not consistent with various coastal resource protection policies of the Coastal Act, it could not be approved at all under the Coastal Act. For this reason the Coastal Commission would likely conclude that the project was not compatible with the goal of protecting coastal resources (PRC section 30413 (d) (1)), and should be located at a suitable site inland of the coastal zone.

Second, even if the Coastal Commission were to conclude that the proposed CEPC was a coastal dependent industrial use, it would be likely to further investigate the prospect of feasible less-environmentally damaging alternative locations for a project not required to utilize seawater intake. If any were found to exist, then the project still would not qualify for approval under PRC section 30260 (1), with the conclusion reached as noted above.

FAUST –(82) 15

Third, because the CEPC does not appear to be required to be located near the sea, the cumulative impacts of extending the life of the existing use of thermal power plants at this particular location and its clearly understood impacts would likely be reviewed. The Commission noted the cumulative impact of extending the life of direct impacts such as the discharge channel in its 1990 report. Whatever the projected life of the existing Encina facility, it is significantly shorter than that of the new proposed facility. Thus a variety of impacts, particularly to visual resources, to access and recreation and to land use could be significantly reduced at this site if the new facility can be built at a different location inland of the coastal zone.

While some of the issues above were discussed in the 1990 report, one that was not is the issue of land use on the site itself. It cannot be emphasized enough that, without the existing industrial facility, this is prime coastal land, situated between a coastal lagoon and the ocean, with beach access, highway access and unsurpassed views. If this facility were not on the site, the Coastal Commission would anticipate that the City would consider other uses consistent with the priorities for development along the coast that the Legislature mandated in the Coastal Act. For example, the City, after whatever site clean-up may prove necessary, might choose to encourage development of a commercial visitor-serving recreational use, one that is given high priority under PRC section 30222. Extending the existing impacts unnecessarily is itself an impact under the terms of PRC sections 30230, 30231, 30251 and 30413 (d) (3) and (4). Preventing the development of a Coastal Act priority use such as a commercial visitor-serving recreational use, when alternatives exist, is another separate impact under the terms of PRC sections 30221, 30222 and 30413 (d) (1) and (2). The Coastal Commission would likely conclude that these additional impacts exist and need to be considered by the CEC in its decision.

Q33. PRC section 30260 references the obligation to consider alternative locations if a new or expanded coastal-dependent industrial facility cannot feasibly be accommodated consistent with other sections of the Act. Have you reviewed the alternative location testimony of the witnesses of the City of Carlsbad?

A33. Yes. Not only does it appear that the locations offered by the city seem viable, they are both located inland – outside the Coastal Zone. Locating these industrial facilities outside the Coastal Zone promotes the intent of the Coastal Act. No industrial facility that is not, as mitigated, fully consistent with the policies of the Coastal Act can be permitted in the coastal zone if it does not “require a site on or adjacent to the sea to be able to function at all”. (PRC section 30101).

Q34. The California Public Utilities Commission has expressed the idea that the utilities first consider the advantages of repowering units at existing sites, or the redevelopment of brownfield sites in close proximity to load centers. Do you have a comment?

A34. Yes. While I generally concur with this policy, it should be cautiously applied to projects within the coastal zone. The reasons are twofold:

FAUST –(83) 16

- 1. Inland power plant locations out of the coastal zone are mandated as compared to locations adjacent to the sea by the Coastal Act, for the reasons discussed above, and*
- 2. Various state agencies have determined that once-through-cooling, used at most older coastal power plants, is to cease over the next ten years. This represents an opportunity to shift power generation away from the coastal zone and implement the Legislature’s vision for priority uses within the coastal zone.*

As an expert on the California Coastal Commission, Mr. Faust did not believe that the CECP was coastally dependent and violated the Coastal Act. Every question, with the exception of the use of coastal water by the amended CECP, would receive the same answer for the amended CECP except for the use of ocean water. The amended CECP would not use ocean water and therefore has no need to be by the ocean.

Terramar doesn’t argue with the fact that the cessation of OTC is a good thing but does comment that the elimination of OTC was the CEC’s primary reason for making the CECP coastal dependent. Acting as the representative of the Coastal Commission in the CECP licensing, the CEC declared that the CECP was coastal dependent mainly due to the use of OTC.

Exhibit #3003, Project Description page 3-6:

The removal of the EPS units would create environmental benefits, including the elimination of 857-million gallons per day of seawater OTC permitted for the existing EPS units. This would enable compliance with the state water board’s existing December 31, 2017 deadline for cessation of seawater OTC by

the EPS, and result in the decrease in impingement and entrainment of marine organisms per EPA 316 (B) Clean Water Act regulations

Terramar comments that with the removal of OTC, neither the CECP nor the Amended CECP would be coastal dependent and that both the CECP and the ACECP violate the Coastal Act.

Conclusion

Terramar disputes that the ACECP is coastally dependent and violates the California Coastal Act. Terramar also disputes that the CECP is coastally dependent and violates the California Coastal Act.

Terramar predicts, based on the evidence available, that there will come a time when the California Coastal Commission points out that the CECP and ACECP violate the California Coastal Act.

Noise & Vibration

Though the FSA calls construction activity for the ACECP temporary, Terramar and other surrounding neighborhoods could be facing 5 years of construction noise and activity from the four phases of the amended CECP. This is an extraordinary amount of time to endure construction activity, vibration and noise. Terramar requests staff continue to extend as much consideration as possible for construction noise and vibration mitigation.

Exhibit #3003, Noise & Vibration page 4.7-7:

Noise due to construction activities is usually considered to be insignificant in terms of CEQA compliance if:

- *the construction activity is temporary;*

Terramar thanks staff for working with the City regarding noise impacts that may occur from nighttime concrete pours. These could be very noisy, especially for the neighborhoods to the north and south of the site.

Terramar thanks staff for extending the noticing area to one mile in the southern direction to include the complete neighborhood of Terramar.

Terramar would like to be informed by staff or the appropriate official when the “Precise noise mitigation measures “ are developed by the construction contractor in the Noise Certifications for Construction as discussed below.

Exhibit #3003, Noise & Vibration pages 4.7-11, 4.7-12;

The petitioner’s plan for the demolition of the EPS’ 400-foot-tall exhaust stack is to use an engineered mast-climbing platform system that would be installed on the exterior of the stack (LL2014pp). Demolition work would begin starting at the top of the stack and move downwards using work crews or robotic units equipped with hammers, crushers, or shears. As the crews break apart the stack, the material would be shoveled inside the stack and funneled to the base. The platform would be lowered as necessary to remove each section until the remaining stack height is approximately 80 feet. At this point, the mast climbing platform system would be removed and the remaining portion of the stack would be demolished using high-reach excavators. Staff asked the petitioner to explain how this work would be controlled, if necessary, to reduce its noise impacts. The petitioner explained that the project would take feasible measures to reduce project-related noise (Requests Set 3, number 72, LL2014pp). The project owner and its contractors would develop reasonable and feasible measures to reduce the level of noise associated with demolition and construction activities (LL2014pp). Precise noise mitigation measures would be developed by the construction contractor. Factors to be considered include any additional wind loading and other safety considerations. Blasting mats or similar structures may be used to reduce the impact of falling debris inside the stack (LL2014pp). Staff believes these steps would provide appropriate and effective mitigation measures.

Pile Driving is probably the most annoying noise and vibration activity that will be part of the construction aspect of the project. Terramar thanks staff for Noise 8 conditions and hopes that they are enough to mitigate this activity. Terramar requests that staff condition the Project Owner to notify the one mile radius properties of the dates and times of pile driving activity.

Exhibit #3003, Noise & Vibration 4.7-13, 4.7-14, 4.7-15;

Noise Table 5 shows that pile driving noise is projected to reach a level of 75 dBA at M1 (West Hotel and Restaurant), 71 dBA at M2 (representing the community of Terramar), and 72 dBA at M7 (the nearest residential receptor to this activity). Adding pile driving noise to the daytime ambient levels would produce increases between ten dBA and 16 dBA at the receptor locations provided.

These increases confirm that unsilenced pile drivers can cause a significant noise impact at the nearest noise-sensitive receptors. However, several methods are available for reducing noise generated by pile driving. These methods are:

(1) the use of pads or impact cushions of plywood; (2) dampened driving, which involves some form of blanket or enclosure around the hammer; and (3) the use of vibratory drivers. These methods can be effective in reducing the noise by eight to 15 dBA compared to unsilenced impact drivers.

*Even though no condition of certification for pile driving was proposed by staff for the licensed CECP, staff believes that due to the proximity of pile driving to nearest noise-sensitive receptors, unsilenced pile driving could cause an adverse community reaction. Therefore, staff proposes Condition of Certification **NOISE-8** (Pile Driving Management), below. This condition of certification requires that pile driving be performed in a manner to reduce the potential for project-related noise complaints. **NOISE-8** also requires the project owner to submit to the compliance project manager (CPM) a description of the pile driving technique to be employed, including calculations showing its projected noise impacts at monitoring locations M2, M5 and M7.*

*The FTA measure of the threshold of architectural damage for conventional sensitive structures is 100 VdB (vibrational decibels), which correlates to a peak particle velocity of about 0.2 in/sec (inches per second). **NOISE-8** would ensure potential vibrations from pile driving are limited to a peak particle velocity of 0.2 in/sec at the nearest sensitive receptors.*

There are four additional turbine generators.

Exhibit #3003, Noise & Vibration page 4.7-16;

Although there would be an additional two turbine generators,

Terramar requests continued balancing for the life of the project to avoid tonal noise in later years. We request staff to add to Condition Noise-4 the continued balancing of noise emissions and testing during the life of the project.

Exhibit #3003, Noise & Vibration page 4.7-18;

Tonal Noises

*One possible source of annoyance would be strong tonal noises. Tonal noises are individual sounds (such as pure tones) that, while not louder than permissible levels, stand out in sound quality. The petitioner plans to avoid the creation of annoying tonal (pure-tone) noises by balancing the noise emissions of various power plant features during plant design (LL2014d, PTA § 5.7.7). To ensure that tonal noises do not cause annoyance, staff maintains Condition of Certification **NOISE-4**, below.*

Terramar has concern about vibration from the ACECP and vibration that may be created later on in the life of the ACECP. We request staff to include vibration testing during the project life.

Exhibit #3003, Noise & Vibration, page 4.7-19;

Airborne vibration (low frequency noise) can rattle windows and objects on shelves and can rattle the walls of lightweight structures. In staff's experience, airborne vibration impacts from a plant such as the amended CECP are typically imperceptible at any significant distance from the plant.

Conclusion

Terramar thanks CEC staff for the revisions to noise condition as a result of our PSA comments. We ask that staff consider our additional requests regarding tonal noise and vibration that may develop during the life of the project. We ask staff to condition the project to protect the vicinity from negative impacts of noise (including tonal noise) and vibration.

Traffic and Transportation

Terramar thanks staff for conditioning TRANS-1 so that large vehicles exiting the ACECP site must use the Avenida Encinas light when traveling East on Canon. Terramar is in the process of trying to make available the complaint form from the Poseidon Project to verify the extremely dangerous incident that occurred when a semi pulled out from the SDGE exit turning East and was trapped on the railroad tracks with a train approaching.

As Terramar intervenor, Kerry Siekmann, is the individual who filed the complaint, I can provide to NRG eyewitness testimony as to the incident.

Terramar thanks staff for conditioning TRANS-5 so that necessary road repairs caused by the project vehicles would be completed as needed by the Project Owner during all phases of the project.

Conclusion

Terramar thanks staff for the changes that staff incorporated into the Traffic & Transportation conditions as a result of our PSA comments.

Visual Resources

Terramar supports Power of Vision's concerns and recommendations regarding the visual eyesore along the I-5 that the transmission lines will create with and without the I-5 widening.

Terramar would like to point out that the "tall tree canopy" along southbound I-5 next to the project has many, enormous, huge gaps in screening. Due to the recent loss of many trees this description is in need of serious revision. Please note the pictures submitted by Terramar showing the expansive holes in tree canopy coverage and the lack of any depth of screening in other spots. Terramar shows that the AST's can even be seen and disputes staff's description. Terramar Exhibits #3016-3037 show huge gaping holes in screening and most scattered screening that is there has no depth of coverage.

Exhibits #3016-3037, Tn#203820-203834, TN#203836-203842

Terramar would like to show the pictures of the tree canopy and gaps traveling south along the I-5 next to the project site. These pictures are taken from the passenger seat of a car so as to recreate the view of any tourist or resident of the ACECP site. They are taken on the southbound side of the I-5. They begin at the lagoon and continue to the Cannon Exit. They were taken on 03/10/15 by Intervenor Terramar (Kerry Siekmann).

Exhibit #3003, TN203696, Visual Resources 4.13-9;

This tall tree canopy is a prominent feature of the existing site, particularly in views from the east. Visibility of the existing ASTs on the proposed CECP site to public off-site viewers is thus virtually nonexistent.

Terramar agrees with staff's recommendation in Certification Condition VIS-2 regarding the landscaping needed to plug these enormously large gaps in landscaping and also in many places the present landscaping is not dense enough to allow screening and must be mitigated. Terramar agrees with staff's recommendation that the Project Owner must plant at the earliest feasible time under VIS-2 to prepare for the I-5 widening. With the widening of the I-5, Terramar suggests that the Project Owner prepare immediately for the loss due to the I-5 widening.

Exhibit #3003, TN203696, Conditions of Certification page 7-102, VIS-2;

In order to compensate for recent tree losses in the berm along the I-5 frontage and enhance perimeter screening in the earliest feasible time-frame, implementation of VIS-2 shall begin at the earliest feasible time, in conjunction with Phase I construction. Also, in anticipation of future I-5 widening, planting under VIS-2 shall include supplemental tall tree planting in available areas outside of the anticipated I-5 right-of-way.

There is a checklist of questions that staff must answer when determining whether “there is a potentially significant visual resources impact generated by a project”.

Exhibit #3003, TN 203696, Visual Resources page 4.13-10;

To determine whether there is a potentially significant visual resources impact generated by a project, Energy Commission staff reviews the project using the CEQA Guidelines (Cal. Code Regs., tit. 14, § 15000 et. seq), Appendix G Environmental Checklist

The checklist questions pertaining to “Aesthetics” are as follows:

A. Would the project have a substantial adverse effect on a scenic vista?

B. Would the project substantially damage scenic resources, including, but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?

C. Would the project substantially degrade the existing visual character or quality of the site and its surroundings?

D. Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Staff must assess different visual aspects for each Key Observation Point (KOP).

Terramar would like to thank staff for adding KOP 6A and we assume staff went through their check list of questions pertaining to “Aesthetics” but we don’t understand how the Impact Significance ends up being “less than significant” after every other measure is moderate or higher.

Visual Quality is moderate

Viewer Exposure is moderate

Viewer Concern is moderately high

Overall Visual Sensitivity is moderate

Visual Contrast is moderate

Overall Visual Change is moderate

Impact Significance would be moderate and less than significant.

Could staff please explain how all of these ratings are moderate to moderately high and Impact Significance ends up being “less than significant”?

Terramar’s 22 pictures show that the Impact Significance of the project will not be “less than significant” as the current screening is pathetic. With the I-5 widening most or all of this screening will be lost along with part of the berm.

Terramar asks for the Committee to fully investigate this situation. Screening in this coastally protected area must be adhered to per the Coastal Act. The CEC is the responsible agency for protecting the coastal beauty since the Ca. Coastal Commission has chosen, at this time, not to take part. With the I-5 widening there will be little left to screen the project along the I-5 Widening.

Exhibit#3003, TN203696, Visual Resources pages 4.13-25 through 4.13-27

KOP 6A – Southbound view of motorists from I-5 adjoining CECP site

Visual Resources Figure 10e depicts a second simulated view of the amended CECP as seen by southbound motorists on I-5, adjacent to the amended CECP site (the existing view is not shown) (DR POV 5-2, LL2014t). KOP 6A was added to the analysis in response to data requests by intervenor Power of Vision, and helps provide a fuller understanding of the project as it would be seen by I-5 motorists.

Visual Sensitivity

Visual Quality: In contrast to KOP 6, existing visual quality for motorists in the segment of I-5 directly adjoining the CECP site is moderate due to an absence of the dramatic ocean and lagoon views that distinguish the view of motorists from KOP 6. The landscaped earth berms, high tree canopy and tall shrub plantings west of the highway contribute an attractive natural element that enhances visual quality while filtering views of the EPS, switchyard, existing storage tanks and other industrial features on the EPS and CECP sites.

Viewer Exposure: As noted under KOP 6, viewer numbers are very high. However, along the I-5 frontage, visibility of the CECP site is intermittent and varies greatly, from low where ample landscape screening is present, to moderately high where such screening is absent. Overall, viewer exposure is considered moderate.

Viewer Concern: Viewer concern is considered moderately high due to special local scenic designations of the highway.

Overall Visual Sensitivity: Overall viewer sensitivity for motorists at KOP 6A and on CECP site’s I-5 frontage generally is considered moderate.

Site changes since licensed CECP proceedings: Since completion of the FSA analysis in 2009, staff observed that there has been some degree of tree mortality or removal on the eastern I-5 frontage of the CECP site. Thus, exposure of the CECP site to viewers on I-5 and elsewhere to the east appears greater than when previously analyzed for the licensed CECP. In addition, it should also be noted that a considerable portion of the remaining existing landscape screening on the I-5 frontage of the CECP site lies not within the CECP site, but within the Caltrans right-of-way. This important portion of existing screening is thus outside of Petitioner's control.

Visual Change

Licensed CECP

KOP 6A was not included in the analysis of the licensed CECP. However, views such as KOP6A were addressed in the FSA analysis of KOP 7, which addressed views from the highway in the segment adjacent to the CECP. At that time, visual change due to the licensed project was considered to be moderate overall, due particularly to partial screening by the landscaped berm and trees.

Impact Significance: In the context of moderate overall visual sensitivity, project impacts were considered adverse but less-than-significant for motorists in the foreground vicinity of the I-5/CECP site frontage.

Amended CECP

*As depicted in **Visual Resources Figure 10e**, from this viewing angle the existing berm and perimeter trees would largely screen the project features. The generation units and exhaust stacks are not visible in this view, but would be visible to varying degrees above and between the landscape screening along the I-5 frontage. Four new transmission poles up to 106 feet in height, and their associated lines, would also be located on the I-5 frontage within a few feet of the highway, which were not a part of the licensed project. These four poles appear in **Figure 10e**. It should be noted that the precise siting of these poles has subsequently been modified from this depiction by the petitioner. As modified, the two nearest poles would be moved westward away from the highway and into the sub-grade power plant area. The poles would thus appear farther from the viewer, and roughly 25 feet lower in apparent height.*

Visual Contrast: Form and color contrast of the new generation units, exhaust stacks, transmission poles, lines and other visible features would vary depending upon the condition of the perimeter landscaping. In some portions of the frontage, screening would be high, but in others where tree and shrub removal has occurred, screening would be nonexistent and contrast high. Where the poles and lines are clearly visible, they would introduce an industrial

character contrasting with the existing tree canopies. Overall, contrast in this section is considered moderate.

Project Dominance: Due primarily to existing perimeter screening, visual dominance of the CECP structures from I-5 would be moderate overall. The existing perimeter earth berm on the CECP site would largely block views of most of the sub-grade generation facilities. The taller structures such as the six new exhaust stacks, which would extend roughly 60 to 65 feet above grade, and to a lesser extent the new transmission poles, have the potential to be visually dominant viewed at such close distances. They thus could intermittently appear visually dominant to passing motorists where loss of screening due to tree mortality has occurred. The visibility and prominence of three of the proposed transmission poles has been reduced from the configuration depicted in the simulation. The simulation depicts the two nearest poles sited at grade very near the site boundary. These two poles and a third new pole are now proposed to be relocated below grade near the generation units, moving them farther from the roadway and reducing their above grade height by 25 – 30 feet, from 100+ feet to 70 – 75 feet. The two southernmost poles would remain at grade. The bottom portions of these two poles would be screened by the existing earth berm and landscaping, while the upper portions would remain visible above the tree and shrub canopies. All of the proposed poles are located roughly 120 feet or more from the nearest travel way behind the elevated earth berm, moderating their potential visual dominance somewhat.

View Blockage: The project would not block or intrude into scenic views from this KOP. Taller project features would intrude into views of the sky to a moderate degree.

Overall Visual Change: Overall visual change from KOP 6A and the CECP I-5 frontage generally would thus be moderate.

Impact Significance: Given the moderate level of visual sensitivity and visual change from this viewpoint, anticipated adverse impacts would be moderate and less-than- significant.

*Recommended Mitigation: To address the very uneven existing screening on the I-5 frontage, enhance the perimeter screening generally, and provide on-site screening to address any potential future losses of existing landscaping within the Caltrans right-of- way, staff recommends adoption of Condition of Certification **VIS-2**. To reduce project contrast to the lowest feasible degree in the short term during growth of landscaping under **VIS-2**, staff also recommends Condition of Certification **VIS-1**, including painting of all publicly visible project structures.*

Terramar asks the Committee to consider that the ACECP is too large of a project for such a constrained sight. Terramar asks for the Committee to consider a smaller alternative project.

In addition, Terramar noticed there is no screening required south of the Amended CECP. We would like staff to address this.

Cumulative Visual Impacts from the I-5 Widening

With the widening of the I-5 as a future project, the visual impacts caused by the ACECP will be significant. As stated at the PSA Workshop, project locations along the I-5 will lose part of the protective berm and current insufficient landscaping eliminating visual mitigation.

Staff has concluded that visual mitigation required by the I-5 widening is the responsibility of Caltrans in combination with the Project Owner.

Exhibit #3003, Alternatives Section p. 4.2-20

*The **Visual Resources** section of this FSA states that significant adverse cumulative visual impacts could result, not from the amended CECP, but from the planned Caltrans North Coast Interstate 5 (I-5) High-occupancy Vehicle (HOV)/Managed Lanes Project (requiring the highway to be widened), in combination with the proposed amended CECP.*

Caltrans has made it very clear to staff that they have no intentions of providing any mitigation to the project. In a phone conversation with CEC staff, Caltrans stated the following:

Caltrans is not proposing any landscaping between the I-5 expansion and the CECP site. The CECP owner will be providing the landscaping.

*Exhibit #3005 Docket #07-AFC-06C, TN#203474, Docketed 12/22/2014
Title-Details on Future I-5 Widening,*

*Exhibit #3007, Docket #07-AFC-06C, TN #203484, Docketed 12/29/2014,
Title-Caltrans' Design for I-5 Widening near Carlsbad Site*

Though CEC staff is fully aware of Caltrans position that they will offer no mitigation, CEC staff has included mitigation responsibilities for Caltrans and the Project Owner in VIS-5.

The CEC does not have authority to require mitigation from Caltrans, just as the CEC did not have authority to make the California Coastal Commission take part in these proceedings. Therefore, the community is left with no clear decision on who will mitigate after the I-5 widening.

CEC must require the Project Owner to be fully responsible for cumulative visual mitigation for the I-5 Widening Project. Terramar suggests that the Project Owner ask Caltrans to help with mitigation, but mitigation must be the full responsibility of the Project Owner.

*Exhibit # 3000 Docket #-07-AFC-06C, TN #203771, Docketed 3/5/2015
Title- Testimony of the City of Carlsbad and the Housing & Redevelopment
Agency Regarding Docket No. 07-AFC-06 (Docketed. 07-AFC-6 on 01/06/2010
for the CECP Hearings, TN#54725) Michael Hogan- Page 95*

The test for determining whether a project will have a significant cumulative impact is whether the project, in combination with other past, present and probable future projects, may result in a substantial adverse change in the physical conditions in the area affected. (CEQA Guidelines 15355, 15382.) The existing physical conditions in the affected area represent the baseline for determining whether a cumulative impact may be significant. (CEQA Guidelines 15125(a).) Accordingly, the analysis of cumulative impacts must consider whether the cumulative projects will cause or contribute to a substantial change in the existing physical conditions, not in hypothetical conditions which might exist under different circumstances. (Woodward Park Homeowners Assn. v. City of Fresno (2007) 150 Cal. App. 4th 683, 707-711.)

Exhibit #3003, Visual Resources 4.13-1;

*The I-5 widening project would border the amended CECP site, and would likely impinge on the eastern edge of the power plant site, creating a potential visual impact by removing existing visual screening of the site. The timing and final configuration of the I-5 widening is uncertain. This issue is essentially the same one considered during the licensed CECP proceeding. Staff anticipates that any cumulative impact from the combination of I-5 widening and the amended CECP will be mitigated by implementation of Condition of Certification **VIS-5**. However, staff's current understanding suggests that adequate implementation of **VIS-5** could require changes or alterations to layouts to either the amended CECP or the I-5 Widening project, or both. The adequate implementation of Condition **VIS-5** is thus at least partially within the responsibility and jurisdiction of Caltrans, which will presumably coordinate with the project owner to accommodate the mitigation required under this condition of certification. Because the final mitigation plan cannot be specifically defined or implemented until negotiations between Caltrans and the project owner for*

right-of- way acquisition are conducted, staff recommends a finding of (potential) significant cumulative environmental effect, the mitigation of which is within the responsibility of another public agency which can and should provide such mitigation.

(CEQA Guidelines 15091(a)(2).)

The California Coastal Act requires the CEC to make the Project Owner mitigate visual impacts caused by the project. Development “shall be subordinate to the character of its setting”.

CEC staff’s description of the project’s land uses along the I-5 corridor fall under the California Coastal Act and the project “shall be subordinate to the character of its setting”.

Exhibit #3003, TN203696, Visual Resources page 4.13-8, 4.13-9;

Land uses in the immediate vicinity of the project site are dominated by intensively- used, scenically-sensitive recreational destinations, including the adjacent lagoon and associated facilities, and Carlsbad State Beach. Highway I-5, an eligible State Scenic Highway and designated city scenic corridor, and Carlsbad Boulevard, a locally designated scenic corridor, bound the EPS site to the east and west respectively; and a rail line (managed by the North Coast Transit District) carrying Amtrak and Coaster regional commuter trains, bounds the CECP site to the west. In addition, other designated local scenic roadways and adjoining residences have prominent views to the site over the lagoon.

In general, the scenic quality of the project viewshed is high, distinguished by views of the Agua Hedionda Lagoon, the Pacific Ocean, substantial areas of agricultural open space, and predominantly residential development with a relatively high degree of visual intactness and unity.

Exhibit #3003, Visual Resources page 4.13-3;

<p><i>California Coastal Act of 1976, Section 30251 – Scenic and Visual Qualities</i></p>	<p><i>The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually</i></p>
---	--

	<p><i>degraded areas. New development in highly scenic areas such as those designated in the California Coastline Preservation and Recreation Plan prepared by the California Department of Parks and Recreation and by local government shall be subordinate to the character of its setting.</i></p>
--	--

The Project Owner must mitigate the ACECP and take into account the I-5 widening. It is the responsibility of the Project Owner to make sure that when the I-5 is widened that there is sufficient mitigation. Caltrans is not building the ACECP, the Project Owner is building it with the knowledge that the cumulative effects from the I-5 widening will occur.

The Project Owner could fully mitigate if the project wasn't too large for the site (due to the knowledge of the future widening of the I-5). Anyone, including Caltrans can see that the Project Owner is trying to stuff too much onto a very constrained site knowing that the I-5 widening is a future project.

The Project Owner must reduce the size of the project in order to mitigate the severe visual impacts created by a project that is just too large for the site.

Terramar would like to recommend to staff that if a project alternative of 400MW or less were considered, there would be room for the transmission lines in the pit and away from the I-5. There would also be room for a berm and plantings for visual mitigation.

Terramar would also like to point out that a smaller alternative project could allow for mitigation and reduce the Project Owner's responsibilities for mitigation.

Facility Design

Terramar would like to remind the Committee that any construction activities that are approved to begin before the ACECP is approved, would avoid any new or revised Conditions that have been updated by CEC staff since CECP proceedings.

Facility Design page 5.1-5;

While the Energy Commission and delegate CBO have the authority to allow some flexibility in scheduling construction activities, these conditions are written so that no element of construction (of permanent facilities subject to CBO review and approval) which could be difficult to reverse or correct can proceed without prior CBO approval. Elements of construction that are not difficult to reverse may proceed without approval of the plans. The petitioner bears the responsibility to fully modify construction elements in order to

comply with all design changes resulting from the CBO's subsequent plan review and approval, and inspection processes.

Terramar would like to inquire about how often field inspections take place?

Power Plant Efficiency

Terramar contends that the alternative of 400 MW is an improved threshold for determining significance of energy resources. 400MW could reduce the “wasteful, inefficient and unnecessary consumption of energy”. This is supported by the decision of the CPUC to deny SDG&E's tolling agreement with the Project Owner.

Power Plant Efficiency page5.3-2;

METHOD AND THRESHOLD FOR DETERMINING SIGNIFICANCE OF ENERGY RESOURCES

CEQA guidelines state that the environmental analysis “...shall describe feasible measures which could minimize significant adverse impacts, including where relevant, inefficient and unnecessary consumption of energy” (California Code of Regulations, title 14, §15126.4[a][1]). Appendix F of the guidelines further suggests consideration of such factors as the project's energy requirements and energy use efficiency; its effects on local and regional energy supplies and energy resources; its requirements for additional energy supply capacity; its compliance with existing energy standards; and any alternatives that could reduce the wasteful, inefficient, and unnecessary consumption of energy (California Code of Regulations, title 14, §15000 et seq., Appendix F).

There is absolutely no information from CPUC that requires the full 600 MW to be from fast start simple cycle units. In fact, the CPUC has denied the tolling agreement SDG&E offered to NRG for 600MW from fast start simple cycle units.. The CPUC stated that the 600MW could be from any source, including renewable.

The footnote quoted below states that SDG&E was authorized to procure 300-600 MW but due to their recent denial, it appears like it will not be entirely from gas-fired generation.

Exhibit #3003, Per Air Quality Appendix, footnote #15 page AQ1-16;

This need for gas-fired generation to reliably operate the system was reaffirmed in the CPUC decision authorizing SDG&E to procure from 300 MW to 600 MW of generation from any resource. D.14-03-004, See Decision Authorizing Long-Term Procurement for Local Capacity Requirements Due to Permanent Retirement of the San Onofre Nuclear Generation Stations, March 13, 2014, p. 4.

There is nothing in the FSA that states a requirement of 600 MW of fast start capacity and, in fact, CEC staff's footnote states that the CPUC said the generation could be as little as 300 MW from any source.

Power Plant Efficiency page 5.3-4;

A gas turbine operates most efficiently at full load power output and its efficiency drops at part load power output. When the project is required to operate at part load, one or more gas turbines can be shut down, allowing the remaining machine(s) to operate at full load at optimum efficiency, rather than operating more machines at a less efficient part load.

How often would 600 MW operate a full efficiency?

Power Plant Reliability

As ACECP is not a base load plant and is not designed to provide base load, Terramar would like to point out that ACECP is not designed for grid reliability for any length of time. As a fast start plant, designed to support dispatch service to meet customer demand, Terramar would like to see an explanation of the "need" for 600 MW at this location especially since the CPUC has denied the tolling agreement that SDG&E had offered to NRG for this project.

Power Plant Reliability page 5.4-3:

It is expected that the amended CECP would operate mainly to support dispatch service in response to customer demands, as opposed to base load mode (LL2014d, § 2.3.3.1). The operation of the amended CECP is limited to no more than 2,700 hours per CTG (combustion turbine generator) in a year, which would yield an annual capacity factor of approximately 30 percent (based on 8,760 hours in a year).

Transmission System Engineering

These existing studies have analyzed the licensed CECP combined-cycle project with the retirement of the existing Encina units 1-4.

Needs to be corrected to "1-5".

Exhibit #3003, Transmission System Engineering page 5.5-9;

Please explain the concealed type, covered by steel frame with accessible auxiliaries.

Exhibit #3003, Transmission Systems Engineering p. 5.5-4

The amended CECP project site will have three switchyards. The GE Model LMS 100 CTG generators are concealed type, covered by steel frame with accessible auxiliaries. The CTG units 6 & 7 and CTG units 8 & 9 will be installed in the 13.8/230 kV switchyards A & B respectively, which would be located side by side at the north side of the plant site and the CTG units 10 & 11 will be installed in the 13.8/138 kV switchyard C which would be located on the southeastern side of the plant site (LL2014d, pages 3- 2 and 3-3), Please see **Project Description Figure 2.**

Worker Safety & Fire Protection

Terramar strongly requests for the safety of the community that there be a condition requiring the Project Owner to thoroughly mitigate the loss of the berm.

Compliance Conditions

Ten days is far too long for the Project Owner to wait to report the complaints ,notices, violations and citations to the CPM. Terramar submits that this should be reported within 3 days.

Exhibit #3003, Compliance Conditions page 6-12;

COM-11	Reporting of Complaints, Notices, and Citations	Prior to the start of construction, the project owner shall provide all property owners within a 1-mile radius a telephone number to contact project representatives with questions, complaints or concerns. The project owner shall respond to all recorded complaints within 24 hours. Within 10 days of receipt, the project owner shall report to the CPM all notices, complaints, violations, and citations.
---------------	---	---

Two weeks after non-operation is too long to notify nearby property owners. There is going to be a great deal of noise for 5 years. If there is going to be a quiet time, the property owners need to know this in order to plan events.

COM-14	Non-Operation	No later than 2 weeks prior to a facility's planned non-operation, or no later than 2 weeks after the start of unplanned non-operation, the project owner shall notify the CPM, interested agencies and nearby property owners of this status. During non-operation, the project owner shall provide written updates to the CPM.
---------------	---------------	--

As there have been a number of new conditions proposed regarding the ACECP that were not part of the original CECP, Terramar suggests that these new conditions must also be followed if any activity is allowed to start prior to licensing.

COM-16	Previously Licensed Activities in Progress Prior to Approval of the Amended CECP	Any activity authorized to start prior to the effective date of the Commission Decision approving the Amended CECP license is in compliance with this license if it is conducted under, and in compliance with, the original CECP license.
---------------	--	--

Conditions of Certification

Condition AQ-SC11 has been eliminated. If the FDOC changes baseline and the Project Owner needs PSD, Terramar requests this condition be reinstated

Conditions of Certification page 7-10;

AQ-SC11 *Prior to the start of construction, the Project Owner shall provide proof of US EPA's approval of a Prevention of Significant Deterioration (PSD) Permit for CECP or certification that no such permit is required.*

Verification: *The project owner shall provide a report of its progress toward obtaining the PSD permit or the CPM CEMS data demonstrating compliance with this condition as part of monthly compliance reports.*

How often does the district inspect the plant?

Exhibit #3003, Conditions of Certification page 7-33;

AQ-62 *The sulfur content of the combustion turbine fuel shall be sampled not less than once each calendar quarter in accordance with a protocol approved by the District, which shall be submitted to the District for approval not later than 90 days before the earlier**earliest** of the initial startup dates*

Will this report and all others be available on the compliance docket?

Exhibit #3003, Conditions of Certification page 7-40;

AQ-79 *Before the end of the commissioning period for each combustion turbine, the project owner shall install post-combustion air pollution control equipment on that turbine to minimize NOX and CO emissions. Once installed, the post- combustion air pollution control equipment shall be maintained in good condition and shall be in full operation at all times when the turbine is combusting fuel and the air pollution control equipment is at or above its minimum operating temperature. [Rule 20.3(d)(1)]*

Verification: *The project owner shall provide the CPM District records demonstrating compliance with this condition as part of the monthly commissioning status report (AQ-80).*

Noise 8- Pike Driving Management needs to be corrected to Pile Driving Management.

Also Terramar suggests that Conditions 8 & 9 include the condition that the Project Owner include the beginning and ending dates of the pile driving and concrete pouring events in their notifications to residents and the City of Carlsbad.

Exhibit #3003, Conditions of Certification page 7-86;

After submitting 22 photos of the I-5 project site along the southbound I-5, Terramar has shown that VIS-2 does not provide sufficient mitigation requirements needed for perimeter screening in this area, as supported by the Ca. Coastal Act.

Exhibit #3003, Conditions of Certification pages 7-102 through 7-104, Vis -2,

*The project owner shall provide **perimeter** landscaping that reduces the visibility of the power plant structures in accordance with local policies and ordinances ...*

Trees and other vegetation consisting of informal groupings of tall, fast-growing evergreen shrubs and trees shall be strategically placed along the eastern, western, and northern facility boundaries...

In order to compensate for recent tree losses in the berm along the I-5 frontage and enhance perimeter screening in the earliest feasible time-frame, implementation of VIS-2 shall begin at the earliest feasible time, in conjunction with Phase I construction. Also, in anticipation of future I-5 widening, planting under VIS-2 shall include supplemental tall tree planting in available areas outside of the anticipated I-5 right-of-way. ...

Terramar will be making a motion for VIS-5 to be corrected to remove Caltrans from any mitigation and place the full responsibility of mitigation on the Project Owner. If the project owner states that there is insufficient room for the Project Owner to create sufficient landscaping and safety buffer for the project, then Terramar will move the project be reduced in size, as Terramar has continually said the project is too large for the site.

Exhibit #3003, Conditions of Certification VIS-5, pages 7-107 through 7-109

There is nothing in the COM-2 condition that makes these documents available to the public record. Intervenors, residents and the general public have an interest in making sure that proper filing of Compliance Records has occurred. Terramar requests that the records from COM-6, COM-7, COM-10, COM11, COM-12, COM-13, COM-14, COM-15 and COM-16 be included.

*Exhibit #3003, Compliance Certification page 7-155;
COM-2: Compliance Record ...*