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Terramar Comments on the Preliminary Staff Assessment (PSA) for the Amended Carlsbad Energy Center Project

Terramar would like to submit the following comments on the Preliminary Staff Assessment for the Amended Carlsbad Energy Center Project.

Terramar would like to thank staff and the Hearing Officer who attended the PSA Workshop for the consideration given to Terramar's comments and questions regarding the PSA.

Terramar would also like to thank the committee and staff for the extension for comments on Air Quality and Health. Air Quality and Health comments regarding the PSA are included in this document. Terramar will submit our comments regarding the Preliminary Determination of Compliance by the February 2, 2015 deadline or before.

Terramar Comments on Project Description Section of the PSA

Project Description page 3-2 states:

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 proposed changes to a licensed project, and whether the modification(s) are based on information known by the petitioner during the certification proceeding. **The purpose of the proposed changes is to make the amended CECP conform to current electrical energy needs for fast-response peaking generation and to better respond to the unanticipated retirement of the San Onofre Nuclear Generating Station.***

The California Energy Commission licensed the CECP in May of 2012. There was no resulting offer to build that project.

In 2014 the Project Owner chose to change the project. In order to change the project the Project Owner must adhere to Ca. Code of Regulations Title 20, sections 1769(a)(1)(A)(B) and (C).

The PSA states that the “Necessity of Proposed Changes” is to make the ACECP conform to current electrical energy “needs” for fast-response peaking generation and to better respond to the unanticipated retirement of SONGS.

Terramar understands that in the CECP proceeding we could not discuss the “need” issue due to the Ca. Code of Regulations.

Now the regulations and staff’s discussion of them in the PSA bring the “need” discussion to the table.

The “need” issue is now a relevant part of the proceeding. Terramar would like to discuss the “need” in the Alternatives section of the PSA. Terramar will make further comments regarding the “need” in our comments in Power Plant Reliability also.

Project Description page 3-4:

Additionally, the amended CECP would retire the older EPS generating facility, and eliminate its permitted use of up to 837 million gallons/day of seawater for once-through cooling (OTC). Cessation of OTC by EPS Units 1-5 allows NRG to comply with the state water board’s deadline for eliminating EPS use of seawater for OTC by December 31, 2017.

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 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.

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.

Terramar Comments on the Air Quality Section of the PSA

Air Quality page 4.1-4;

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 and thus the trigger levels are emissions increases of 40 tons per year of NOx or VOC or SOx, 15 tons per year of PM10, or 100 tons per year of CO.

Quality Appendix AQ1, page 3:

The proposed facility modifications are not subject to the PSD analysis for other NSR pollutants and are therefore not subject to GHG PSD analysis.

Terramar has a grave concern that the Air Pollution Control District has chosen an inappropriate baseline of years for the ACECP. This inappropriate baseline allows the Amended CECP to avoid PSD. Terramar is asking the APCD to remain consistent in their process of choosing baseline years.

The completion of Terramar's air quality and GHG comments will be submitted on February 2 or before, due to the appreciated extension of deadline by the CEC for Air Quality and GHG comments.

Per Air Quality page 4.1-49, Terramar would like to know what values were used for Encina in Air Quality table 29?

*The results of this modeling effort, **Air Quality Table 29**, show that the amended CECP's initial commissioning, along with the existing Encina Power Station (EPS), would not contribute to new short-term AAQS violations. The EPS would be decommissioned after initial commissioning and the amended CECP begins commercial operation.*

Air Quality Appendix page AQ-1, 2:

The relative efficiency of the amended CECP and the system build-out of renewable resources in California would result in a net cumulative

reduction of GHG emissions from new and existing fossil sources of electricity.

The purpose of the Amended CECP is to replace electricity generation lost from the shuttered of San Onofre Plant. Terramar would like to know how 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?

Air Quality Appendix page AQ-1, 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”*

Air Quality Appendix page AQ-1, 19:

Authorization for San Diego Gas & Electric (SDG&E) to procure natural gas-fired generation or other least-cost resources to replace the San Onofre Nuclear Generating Station in the San Diego LCA was granted in D.14-03-004 (March 13, 2014) in the CPUC’s 2012 LTPP proceeding (R.12-03-014). The decision authorizes SDG&E to procure 500 – 800 MW of capacity, at least 200 MW of which must be preferred resources, including at least 25 MW of storage. This authorization is in addition to that previously granted to contract with the 300-MW Pio Pico Energy Center.

Terramar believes that the amended CECP is in part interfering with the generation of new renewables and is not consistent with the Avenal precedent decision. The Ca. Public Utilities Commission (CPUC) clearly stated that this generation could be either renewable or fossil fuel. Since there has been no RFO allowed for renewable generation, Terramar would like to ask staff to explain how this is not interference as there was no opportunity for this generation to go to renewables.

Air Quality Appendix page AQ-1, 20;

Any assessment of the impact of a new power plant on system-wide GHG emissions must begin with the understanding that electricity generation and demand must be in balance at all times; the energy provided by any new generation resource simultaneously displaces exactly the same amount of energy from an existing resource or resources. The GHG emissions produced by the amended CECP are thus not incremental additions to system-wide emissions, but are partially or totally offset by reductions in GHG emissions from those generation resources that are displaced, depending on the relative GHG emission rates.

Air Quality Appendix page AQ-1, 29:

The project would lead to a net reduction in GHG emissions across the electricity system that provides energy and capacity to California. Thus, staff believes that the project would result in a cumulative overall reduction in GHG emissions from the state's power plants, would not worsen current conditions, and would thus not result in impacts that are cumulatively significant.

The PSA points out that a certain amount of the amended CECP is a replacement from the shuttering of San Onofre. San Onofre had no GHG emissions. Again Terramar would like to point out to staff that it is not possible for their to be a net reduction in GHG emissions when a fossil fuel plant is replacing generation from San Onofre.

Air Quality Appendix page AQ-1, 27:

AVENAL PRECEDENT DECISION

The Energy Commission established a precedent decision in the Final Commission Decision for the Avenal Energy Project, 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

- *take into account the two preceding factors, reduce system-wide GHG emissions”*

Once again Terramar would like to comment to staff that the amended CECP has stood in the way of new renewable generation since there was no RFO making the ACECP inconsistent with the Avenal Precedent decision.

Terramar’s Comments on the Alternatives Section of the PSA

Per Alternatives, page 4.2-3 in the Project Objectives it states as an objective as:

- *Modify the licensed CECP to include the retirement of all five Encina Power Station (EPS) units allowing for faster and more complete response to both the pending OTC reductions, and better grid support from the June 7, 2013 shutdown of San Onofre Nuclear Generating Station.*

Alternatives, page 4.2-4:

As described below, the state’s programs implementing the loading order underlie the energy agencies’ assumptions for determining the need for future gas-fired generation to support the shift to a reduced carbon emissions system. State programs to minimize reliance on combustion resources are known to be aggressively pursued through robust implementing efforts. The state’s gas-fired generation is needed to maintain electric system reliability and complement the many preferred resources programs, including energy efficiency, demand side management, and rooftop solar. These coordinated programs are necessary to achieve compliance with the state’s Renewables Portfolio Standard (RPS) program goals, but they are not considered feasible alternatives to critically located gas-fired generation.

Terramar would like to point out that the CPUC specifically allowed the choice of renewable or fossil fuel for this generation. Terramar believes that the amended CECP is in part interfering with the generation of new renewables. The Ca. Public Utilities Commission (CPUC) clearly stated that this generation could be either renewable or fossil fuel. Since there has been no RFO allowed for renewable generation, Terramar would like to again ask staff to explain how this is not interference as there was no opportunity for this generation to go to renewables?

On Page 2 from the CPUC, JOINT PROTEST OF SIERRA CLUB AND CALIFORNIA ENVIRONMENTAL JUSTICE ALLIANCE it states:

Because D.14-03-004 was approved prior to finalization of the CAISO's 2013-2014 Transmission Plan ("2013-2014 TPP"), potential benefits of proposed transmission improvements in lowering local capacity needs could not be ascertained with certainty at the time the Decision was issued. However, D.14-03-004 recognized that "[i]f some level of new transmission resources is identified in the 2013/2014 TPP which would reduce LCR needs in the SONGS service area by 2022 (for example, the Mesa Loop-In project), the total amount of overall procurement needed in the SONGS service area would be reduced.

And

The 2013-2014 TPP ultimately did approve transmission upgrades that significantly reduce LCR need in the San Onofre area. The approved transmission projects include:

- *□ An additional 450 MVAR of dynamic reactive support at San Luis Rey, which has a proposed in-service date of June 2018, and is expected to reduce LCR need from between 100 and 200 MW;*
- *□ An Imperial Valley Flow Controller, which has a proposed in-service date of May 2017, and is expected to reduce LCR need between 400 and 840 MW;*
- *The Mesa Loop-In Project, which has a proposed in-service date of December 2020, and is expected to reduce LCR need by 300 to 640 MW.*

These transmission alternatives are not presented in the PSA. Terramar would like for staff to consider these transmission alternatives in the FSA. Terramar comments that the ACECP is too large of a project, especially with this abundance of transmission upgrades and a better alternative would be a 400MW project or smaller.

Per page 7 from the CPUC, Joint Protest of Sierra Club and California Environmental Justice Alliance it states:

One option posed by the IE was for SDG&E to contract for 400 MW from the Carlsbad facility with an option to take the next 200 MW if the results of the Preferred Resources RFO are not compelling or economic. Alternatively, perhaps Carlsbad could phase in the units (as it anticipates already) but over a longer period to allow sufficient time to assess the market.

Terramar also suggests this option as another alternative for staff to consider in the FSA.

During the PSA Workshop, the ACECP was shown to have serious site issues.:

The site is not big enough to accommodate the project and the transmission lines inside the pit creating visual blight.

The site is not big enough to accommodate visual mitigation once the I-5 widening occurs creating visual blight.

The site is not big enough to accommodate the berm to protect the site from a semi that may veer off the I-5 creating safety concerns.

Terramar suggests that staff consider the alternative of at most 400MW for the project. This would mitigate all of these serious site issues. Terramar would like to comment that the ACECP is just too big for the site!

Terramar Comments on the Noise and Vibration section of the PSA

Noise & Vibration page 4.7-6:

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

the construction activity is temporary;

After a significant time period of construction activity and noise from the Desalinization Plant, Terramar is now facing up to 5 more years of construction noise and activity from the four phases of the amended CECP. Due to the extraordinary amount of time that our neighborhood and the neighborhood to the north of the project site must endure construction activity, vibration and noise, Terramar requests staff offer as much consideration as possible for construction noise and vibration mitigation. The time period will be so long it is more that temporary.

Noise & Vibration page 4.7-7:

Construction noise from the amended CECP is expected to be the same as the licensed CECP. There are no new pieces of construction equipment or methods of construction that were not proposed previously for the approved project. Therefore, staff uses

the predicted power plant construction noise impacts as identified in the FSA for the licensed CECP (CEC2009a, FSA § 4.6, Table 3) to evaluate the amended CECP's construction impacts.

Terramar finds this statement confusing, as the amended CECP is different equipment than the CECP. Terramar would like to ask staff to provide a full evaluation of the noise impacts.

Noise and Vibration page 4.7-13:

However, there would be six smaller CTGs in place of the two larger CTGs, and two of the CTGs would be located approximately 200 feet south/southeast of the previously approved project site boundary, but within the same property boundary line. Staff does not expect the amended CECP's overall operational noise levels to differ substantially from the licensed CECP. Thus, the results of the modeling done for the licensed CECP apply to the amended CECP.

Terramar would like to see the evaluation staff used to determine the noise levels of the six CTG's versus the two large CTS's and how they came to this conclusion.

Noise and Vibration page 4.7-17:

NOISE-1 At least 15 days prior to the start of any demolition activities associated with the amended CECP ground disturbance, the project owner shall notify all residents within one mile of the site to the north and northeast and one-half mile in all other directions, by mail or other effective means, of the commencement of project demolition and construction activities at the Encina Power Station have been completed.

Terramar would like to request this condition be changed to a one-mile circumference from the site in all directions. This request would then include the entire neighborhood of Terramar.

As requested by staff at the PSA Workshop, Terramar received confirmation from the City that the distance from the southwest corner of the site to the farthest distance in Terramar is approximately .8 mile. As the condition stands it does not include all of Terramar.

By changing this condition to "one mile" in all directions, the City and Applicant may save themselves from many phone calls and complaints from Terramar residents. If

the residents of Terramar are informed of disturbances ahead of time, it will help to calm the residents and may avoid many complaint calls.

Regarding Condition - Noise 4 (pages 4.7-18 – 4.7-19) Terramar would like to request that the CPM efile the progress and reports made throughout this process.

Terramar would like to make the same request for Noise 5, as for Noise 4. Terramar would like the CPM to efile the progress and reports made throughout this process.

Also, Terramar is very happy that staff is working with the City regarding noise impacts that may occur from night-time concrete pours. These could be very noisy for the neighborhoods to the north and south of the site.

Terramar comments on the Soil and Water Section of the PSA

Soil and Water Resources page 4.10-35:

***SOIL&WATER-4** was updated to change ocean discharge requirements. The amended CECP no longer proposes desalination,*

Terramar comments that due to the elimination of the use of ocean water in the project, the amended CECP violates the California Coastal Act. With the availability of water from the City of Carlsbad, the approved CECP also violates the Coastal Act.

During the PSA Workshop, the Project Owner discussed requesting potable water be available to use if reclaimed water is not available by commissioning date of 11/1/17. Terramar opposed this request. As we are in a severe drought, Terramar would not appreciate the water meant for residential use, be used for a power plant.

Terramar comments on the Traffic and Transportation Section of the PSA

Traffic and Transportation page 4.11-6 lists as #4 :

Significance criteria used in this document for evaluating environmental impacts are based on the CEQA Guidelines, the CEQA Environmental Checklist for Transportation/Traffic, performance standards or thresholds

identified by Energy Commission staff, and applicable LORS used by other governmental agencies. Specifically, staff analyzed whether the proposed project would:

- 4. Substantially increase hazards due to a design feature (e.g., sharp curves, dangerous intersections, or glint and glare) or incompatible uses (e.g., farm equipment);*

Terramar asks staff to include a condition that prohibits any large construction vehicles (8 or more wheels) from exiting across Cannon and turning in an easterly direction from the SDG&E site. Terramar asks that the condition require the large construction vehicles (8 wheels or more) to use the Avenida Encinas traffic light intersection to turn left (or east).

The PSA states on page 4.11-15:

Other access points include Avenida Encinas, the primary access for construction trucks, and the SDG&E service gate, both off of Cannon Road. These entrances are also not visually obstructed. However, they are located near the railroad track crossing over Cannon Road. The crossing is signalized, minimizing the likelihood that construction traffic could impact train operations and safety and vice-versa.

Terramar disagrees with the exit of any large construction vehicles (8 or more wheels) from the SDG&E service gate that would be turning east across Cannon and crossing over the railroad tracks. Terramar asks that those vehicles be limited to using the Avenida Encinas' traffic light to make a left turn.

And according to Traffic and Transportation page 4.11-17 staff writes:

*staff is proposing Condition of Certification **TRANS-4**, which would require the project owner to develop a crossing safety plan for project demolition and construction to address foot traffic as well as demolition- and construction-related vehicle crossing and the transport of heavy/oversize loads over the internal rail crossing to ensure no impacts would occur to existing rail line use. With the above conditions of certification, impacts to alternative transportation from the amended CECP would be less than significant, as they were for the licensed CECP.*

Terramar is happy to see condition Trans-4 for crossing the railroad tracks inside the project site, yet there is no plan for these large construction vehicles (8 wheels or more) crossing against westbound traffic on Cannon, turning left over the railroad tracks and facing a stop light. Terramar strongly suggests that staff reconsider no eastbound exit plan from the SDG&E Cannon Road exit for large construction vehicles (8 wheels or more).

Terramar feels it is important to stress this concern. I witnessed a near accident at this location resulting from a semi exiting from SDG&E Cannon site, turning left across Cannon and getting stuck on the railway tracks at a red light with a train approaching. Fortunately the stoplight turned from red to green and the semi advanced avoiding a serious railway accident.

Traffic and Transportation page 4.11-25:

TRANS-5—*Following completion of project construction **and demolition**, the project owner shall repair any damage to roadways affected by construction/**demolition** activity to **pre-project road conditions or better**. along with the primary roadways identified in the traffic control plan for construction traffic to the road's pre-project construction condition. Prior to the start of **demolition and** construction, the project owner shall photograph, videotape, or digitally record images of the roadways that will be affected by pipeline construction and heavy construction **truck** traffic. The project owner shall provide the CPM and the city of Carlsbad with a copy of the images for the roadway segments under its jurisdiction. Also, prior to start of **demolition and** construction, the project owner shall notify the city about the schedule for project **demolition/construction**. The purpose of this notification is to **allow the city the opportunity to** postpone any planned roadway resurfacing and/or improvement projects until after the project **demolition/construction** has taken place and to coordinate **demolition/construction-related activities** associated with other projects.*

Though Terramar is grateful for staff's condition for the Project Owner to repair the roads once the construction is completed, Terramar would like to point out that this is a five-year project. Terramar would like to ask staff to update this condition so that the Project Owner is responsible to maintain the roadways used for this project during the five years. This is important to protect the safety of the roadway and the condition of the cars from our neighborhood and other residents who will use these roadways during this five-year project.

Terramar Comments on the Visual section of the PSA

With the widening of the I-5 as a future project, the visual impacts to the ACECP will be significant. As stated at the PSA Workshop, there will be locations along the I-5 where the berm will be completely removed, allowing no visual mitigation. This is unacceptable. The Project Owner must reduce the size of the project in order to mitigate the severe visual impacts.

Terramar is in complete support of Power of Vision's concerns and recommendations regarding the visual eyesore that the transmission lines will

create. These impacts will be even more significant when the I-5 is widened. 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 Comments on the Power Plant Reliability section of the PSA

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).

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.

Terramar would like to point out again as stated on Project Description page 3-2:

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 proposed changes to a licensed project, and whether the modification(s) are based on information known by the petitioner during the certification proceeding. **The purpose of the proposed changes is to make the amended CECP conform to current electrical energy needs for fast-response peaking generation and to better respond to the unanticipated retirement of the San Onofre Nuclear Generating Station.***

As pointed out by staff in the PSA page 3-2, “The purpose of the proposed changes is to make the amended CECP conform to current electrical energy needs”, Terramar

would also like an explanation of why 600 MW is needed since only 400 MW was lost from the shuttering of San Onofre in the SDG&E area.

Terramar Comments on the Transmission System Engineering section of the PSA

Transmission System Engineering page 5.5-2:

On satisfactory completion of...The California ISO may also provide written and verbal testimony on their findings at the Energy Commission hearings, if necessary.

Terramar would like to know if the CAISO is planning to provide both written and verbal testimony.

Transmission System Engineering page 5.5-3:

The NERC Reliability Standards apply not only to interconnected system operation but also to individual service areas (NERC 2006).

In Competitive Power Ventures 'Notice of Ex Parte Communications' to the CPUC on 12/25/14 it states on pages 3 & 4:

According to the California Independent System Operator ("CAISO"), the Locational Effectiveness Factors throughout the San Diego LCR area all equate to 100% effectiveness, suggesting that Carlsbad offers no quantifiable locational advantage to other potential projects within the San Diego LCR area.

Terramar suggests that it would be more efficient to spread the quick start power units around the county rather than placing them all in one location.

Also it would be better to spread the MW around for security reasons. (Terramar is also posting this comment in the Worker Safety and Fire Protection section of comments.)

Terramar Comments on the Worker Safety and Fire Protection section of the PSA

Terramar would like to emphasize the possible serious security consequences of locating so many fast start megawatts in one location.

Terramar would also like to emphasize that the widening of the I-5 project causes the project to lose the safety berm.

In General

Terramar would like to request that the CPM efile progress reports in all categories (including Conditions placed on the project) throughout the entire project including tank removal, power plant construction, shutdown of Encina, and demolition of Encina.

Terramar thanks the committee and staff for their consideration of all of Terramar's comments.