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BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT
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PETITIONS TO AMEND THE

CARLSBAD ENERGY CENTER PROJECT

Docket No. 07-AFC-06C

ENERGY COMMISSION STAFF COMMENTS ON THE CARLSBAD PRESIDING MEMBERS PROPOSED DECISION

The Presiding Member's Proposed Decision (PMPD) is well-written, well-reasoned, and basically sound. Staff recommends the changes set forth below to correct minor errors, clarify ambiguous language, or augment the nexus between the evidentiary record and the PMPD's Findings of Fact and Conclusions of Law. The comments follow the sequential order of the PMPD sections, and are shown using underline and strikeout.

Introduction:

p. 1-6, third full paragraph, second sentence, should read:

~~Other parties~~ Parties, including the Applicant, Commission staff, and ~~formal~~ intervenors function independently with equal legal status.

p. 1-7, fourth line on page, should read:

As a practical matter, the Commission utilizes ~~many of~~ the substantive concepts from CEQA . . . .

Project Description:

p. 2-10, Findings and Conclusions No. 1 should be augmented to read:

1. The change in the project will be beneficial to the public, Applicant, and intervenors by providing better consistency between the project and local land use regulations; by significantly reducing water use; by removing the existing EPS power plant and thus improving . . . .

Project Alternatives:

p. 3-10, under No Project Alternative, the third paragraph should be augmented to read:

While the CECP would modernize . . . than the combined cycle units of the CECP. In addition, the CECP would have a taller visual profile (and impact) than the ACECP; it would also use twice as much water, and that water may come from the ocean, raising concerns about impact to that resource.

p. 3-10, fourth paragraph, should be augmented as follows:

The CECP is required to plan for the . . . necessary resources; the ACECP includes decommissioning and demolition as part of the project, opening up valuable coastal land for non-industrial uses. Finally, the CECP remains inconsistent . . . .

p. 3-12, should include this additional paragraph following the first paragraph on the page:

Given its age and obsolete technology, it is unlikely that EPS would be modernized to meet the state mandate to reduce impacts or eliminate marine water use for cooling. The no project alternative might require it to operate substantially longer, until local reliability is assured by some as yet unspecified solution that allows the aging facility to retire. Even if one assumes that it were modified, at great expense, to comply with the state mandate, it would only meet that one project objective.

p. 3-12, Finding of Fact # 2 should be modified to read as follows:

The evidentiary record contains ~~an adequate review of~~ a reasonable range of alternative sites, technologies, conservation . . . .

p. 3-13, Finding of Fact # 9 should be modified to read as follows:

The no project alternative of retaining the EPS would not comply with state policy regarding OTC, and would provide inferior electrical system reliability and support for the integration of renewable energy. ~~provide electrical system benefits, including support for the integration of renewable energy.~~

p. 3-13, insert a Finding of Fact following # 9 that reads as follows:

10. While the no project alternative of constructing the licensed CECP would be more efficient than the ACECP when the combined-cycle facility is fully warmed up and run at a steady state, it would not result in a reduction of the project GHG emissions compared to ACECP, because ACECP would displace more energy from very high emitting peaking resources, and provide greater flexibility necessary to integrate larger amounts of energy from intermittent renewable resources into the electricity system.

p. 3-13, Finding of Fact # 11 needs to be clarified to eliminate any ambiguity, as follows[1]:

[1] Finding of Fact No. 11 discussion of the "environmentally superior alternative" in this context is inconsistent with CEQA: CEQA only requires the designation of an "environmentally superior alternative" when the "no project" alternative is environmentally superior to the proposed project (Cal. Code Regs., tit. 14, § 15126.6, subd.(e)(2)), which the PMPD (like the Staff testimony) elsewhere states is not the case. (See, e.g., "Discussion and Conclusion" at p. 3-11.) In addition, the discussed alternative is described as infeasible.

11. There is no feasible alternative to the project that is environmentally superior. A combination of preferred resources (renewable generation, DG, demand response, and storage) managed together to provide a stable controllable output would be environmentally preferable were it currently feasible. While many of the technical elements necessary to create this hybrid approach are available today, the regulatory mechanisms and market incentives necessary for its development and implementation are not in place. At some future date, it may be possible to use such a combination of technologies, in lieu of gas-fired generation, for meeting reliability requirements.

p. 3-13, Conclusion of Law # 1 should be altered to read as follows:

1. If all Conditions . . . with the exception of a potential significant cumulative impact identified in Visual Resources . . . .

Compliance Conditions and Compliance Monitoring Plan:

p. 4-2, last paragraph on page, and footnote 8. The paragraph includes the statement that "Such requirements [requiring prepayment of closure expenses, including site restoration expenses] have been imposed on large solar projects in the desert." The footnote citation is to the Ivanpah case, presumably the Final Decision. Staff is unable to find any Energy Commission Condition of Certification requiring such site restoration pre-payment. Thus, the sentence and footnote should be deleted.

Greenhouse Gas Emissions (GHG):

The discussion in this section is good, but can be improved by: (1) recognizing Staff's testimony that there is *no* relative GHG emission benefit of the CECP compared to the ACECP, when one considers the latter's operational flexibility, and the facilities (existing peakers) ACECP would logically displace; (2) a more complete response to Sierra Club's argument that the CEQA "baseline" is one that considers SONGs to still be operating; and (3) acknowledging the important fact that the aging EPS facility is scheduled to follow SONGs into retirement as soon as grid reliability can be assured.

Thus, it is EPS and other gas-fired facilities that will be displaced or replaced by ACECP, rather than the generation from the shuttered nuclear facility.

p. 6.1-2, second full paragraph, last sentence, should be changed to read as follows:

Additionally, the ACECP proposes the decommissioning ~~and demolition~~ of the less efficient, higher –GHG emitting EPS units 4 and 5, and the demolition of the entire EPS, (such demolition resulting in a new one-time source of GHG emissions).

p. 6.1-8, top of page partial paragraph, last sentence, should be changed to read as follows:

The CECP is a fast-start combined cycle that could ~~would~~ function as both a base load and peaker plant and would have been called upon to operate more frequently than ACECP due to a higher position in the dispatch queue; the ACECP is a peaker only, albeit one that is more efficient and flexible than older simple-cycle technologies.

p. 6.1-8 and 9, last paragraph on first page, first paragraph on second: This discussion uses the term "intermittent" to describe construction emissions. The more appropriate term is "temporary."

p. 6.1-10, first full paragraph, should be changed to read as follows:

The GHG emissions totals noted above in **Greenhouse Gas Table 2** . . . . However, the Staff's testimony indicates that the ACECP is, based on the historical capacity factors for San Diego area simple-cycle power plants, more likely to ~~projected to~~ operate at a much lower capacity factor, perhaps at a 6 percent capacity factor, ...

p. 6.1-10, the second full paragraph should be altered to read:

Even if the CECP were to operate . . . . This is a very small increase compared to the permitted facility, and is not significant. Moreover, staff's testimony on the comparison between licensed CECP and ACECP is that, even if the ACECP were to operate at its maximum permitted levels and emit very slightly higher emissions than CECP, ACECP would

- Displace generation and thus GHG emissions from far higher-emitting peaking resources than the combined-cycle facilities that would frequently be displaced by the CECP (4/2 RT 74 [lines 13-14; Dr. Moore], 111-112 [Vidaver].)

- Due to its greater flexibility, allow for the integration of more energy—compared to CECP—from intermittent renewable resources (e.g., solar and wind energy), energy that would in turn displace energy currently provided by gas-fired generation. (Exh. 2000 [FSA] pp. AQ 1-22 to 24.)

Thus, the relative efficiency of the ACECP compared to existing peaking generation in the San Diego region, and its greater flexibility compared to a combined-cycle, more than compensates for its lower generating efficiency, resulting in lower overall GHG emissions from the grid.

p. 6.1-11, footnote 30, should be added to such that it reads as follows:

Over time, the development of demand-side and storage technologies that can cost-effectively substitute for dispatchable generation as providers of regulation, load-following, and multi-hour ramping services may obviate the need for gas-fired generation, but this is not expected to occur soon enough to eliminate the need for gas-fired generation to replace a share of the capacity retired by SONGS, and by the retirement of aging OTC facilities such as EPS.

p. 6.1-13, Greenhouse Gas Table 3: Either remove the "a" and "b" notes in the table in their entirety, or add them in their entirety.

p. 6.1-17 (GHG Baseline), the second paragraph should be modified, and two additional short paragraphs added, as follows:

Section 15125 of the CEQA Guidelines generally instructs agencies to take the environmental setting at the time analysis is commenced as their baseline for CEQA analysis. The Sierra Club did not introduce any evidence or logical reason for a baseline that assumes that SONGS is fully operational, when that facility has not operated for nearly four years, and was formally retired in 2013. ~~It is true that the carbon intensity of California's electricity grid increased when SONGS ceased operations in 2012. However, this increase is in no way attributable to ACECP.~~

Sierra Club is correct that the "carbon intensity" of the electricity grid increased when SONGS ceased generation years ago. That is because its lost generation was replaced by, among other things, other generation sources, much of which is gas-fired, including the obsolete EPS facility in Carlsbad and other regional peaking plants depicted in GHG Table 3. As discussed above, these gas-fired facilities that help compensate for the SONGS retirement are less efficient than the ACECP. If ACECP goes on-line in 2018 (six years after SONGS ceased to operate), those less efficient facilities will operate less (or in the case of EPS, be retired entirely), reducing GHG emissions from the electric generation system.

Sierra Club is thus mistaken when it asserts that ACECP will displace, or replace, the zero—carbon emissions from the retired SONGS facility. Rather, its singular effect is to displace the gas-fired generation that already serves to compensate for the SONGS closure, and replace the aging gas-fired generation at EPS. Thus, the analysis of GHG emission effects from ACECP is correct to use a baseline of existing conditions.

p. 6.1-22: Add the following Finding of Fact:

16. SONGS ceased operation in January 2012, and has since been formally retired.

p. 6.1-22: Modify Conclusion of Law # 10 to read as follows:

10. Even if considered in isolation, the GHG impacts from operation of the ACECP will not cause ~~be not~~ a significant environmental impact, because the ACECP will comply with cap and trade, a statewide program for management and reduction of the cumulative GHG impacts of the electric and industrial sectors.

Air Quality:

p. 6.2-1, second paragraph, last sentence, should be changed to read as follows:

SDAPCD released its Final Determination of Compliance (FDOC) on March 19, 2015; this was later amended to address administrative corrections in a final document released on April 17, 2015 (TN 204243), stating that CECP is expected to comply . . . .

p. 6.2-4, "Operation", paragraph at bottom of page should change first sentence to read:

The ACECP facility would be capable of operating seven days a week, 24 hours per day, but is subject to permit conditions that limit daily operation to 18 hours per day (military time hours of 0600 to 2400) except in the case of California Independent System Operator declared emergencies, and limit annual emissions to . . . .

p. 6.2-5, first full paragraph (single sentence) should be deleted:

~~Construction emissions are modeled to increase PM10.~~

p. 6.2-6, **Air Quality Table 2:** Staff recommends that the PMPD either remove the "a" and "b" table note citations or include them in their entirety.

p. 6.2-8, first partial paragraph, change to read as follows:

. . . and after ACECP begins commercial operation when EPS is being demolished. Staff's analysis of b~~B~~oth found no new exceedances of state or federal air quality standards and a "negligible" and temporary increase~~s~~ in annual PM10 ~~emissions~~ concentrations, which already exceed state standards.

p. 6.2-9, first partial paragraph, last sentence, should be changed to read:

With this revised baseline, the ACECP would be subject to air district offsets ~~regional off-set requirements~~, as provided in ~~and the requirements of~~ Condition of Certification. .

Biological Resources:

p. 7.1-2, Public Comments paragraphs: The discussion in the PMPD should reference the fuller discussion of some of the intervenor comments presented in Staff's written testimony. Thus, Staff proposes the addition of a second paragraph (following the first paragraph in the comment discussion), and modification of the third paragraph, to read as follows:

Moreover, Staff's analysis in this proceeding addressed these concerns and described them as unfounded. The concern that pelicans would be significantly endangered by transmission lines spaced for raptor protection is entirely speculative, supported by no evidence, and contradicted by testimony that pelagic species (e.g., pelicans) are not inclined to perch on transmission lines in the manner that raptors commonly do. (Exh. 2000 [FSA] pp. 4.3-21, 22.) The contention that there is collision risk from the ACECP stacks is similarly contradicted by testimony that the ACECP amendment will lower the stacks' height, reducing such collision risk, and that it also removes the 400 foot EPS stack, which is a much higher risk for collision for avian species. (*Id.*, at p. 4.3-22.) Simpson's concern that the thermal exhaust from the ACECP stacks represents a significant risk to birds is similarly speculative and is not supported by any evidence in the record. (Cal. Code Regs., tit. 14, § 15384 ["Argument, speculation, unsubstantiated opinion . . . does not constitute substantial evidence."].) Staff's efforts to find any

evidence of adverse impacts from power plant exhaust plumes are addressed in its testimony: there is simply no evidence of any kind substantiating adverse effect, either in the general literature or in the compliance and enforcement experience of the Energy Commission with regard to numerous other power plants. (Exh. 2000 [FSA], p. 4.3-21.)

Mr. Simpson's comments fail to identify any new significant impacts, new information not available during the preparation of the 2012 Decision or new or newly feasible mitigation measures. We abide by the environmental analysis contained in that document as supplemented by the staff testimony in the amendment proceeding.

p. 7.1-2, footnote 5, should be changed to read:

5. TN 204350. As Mr. Simpson-was not admitted as an intervenor on this topic, and provided no testimony, we treat his brief as public comment.

p. 7.1-3, Findings of Fact: Include this additional finding:

6. The ACECP would result in reduced collision risk for avian species because it lowers the stack height of the project, and because it will remove the much larger and higher EPS power plant and stack.

Waste:

p. 6.6-2, 3rd para, line 2:

WASTE-12 should be changed to **WASTE-11.**

Traffic and Transportation:

p. 8.2-2, third full paragraph: the paragraph implies that Caltrans is a reviewing agency for the traffic control plan, but **Trans-1** does not include Caltrans as a reviewing party. Caltrans should thus be deleted from the sentence.

p. 8.2-3, third full paragraph: same comment as above.

Cultural Resources:

p. 7.3-2, first paragraph, lines 7-10, the sentence should be revised to read:

The changes to Condition of Certification **Cul-6** thus ~~involve increased~~ require monitoring only for the ~~expanded areas~~ areas of the site where cultural material has been identified. In the event of discovery of significant ~~archaeological or ethnographic~~ cultural resources, Condition of Certification **CUL-67** sets forth mechanisms to ~~preserve~~ mitigate impacts to them.

Date: June 25, 2015

Respectfully Submitted,

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