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Project Title:	Carlsbad Energy Center - Compliance
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Document Title:	California Department of Fish & Wildlife (CDFW) Comment Letter on Amended CECP Presiding Members Proposed Decision (PMPD)
Description:	Comment Letter on avian (bird and bat) impacts from Amended CECP exhaust stack thermal plumes, and avian impacts resulting from collisions with transmission wires.
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Organization:	California Department of Fish and Wildlife
Submitter Role:	Public Agency
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State of California – Natural Resources Agency DEPARTMENT OF FISH AND WILDLIFE South Coast Region 3883 Ruffin Road San Diego, CA 92123 (858) 467-4201

EDMUND G. BROWN JR., Governor
CHARLTON H. BONHAM, Director

October 19, 2015

Mr. Robert B. Weisenmiller, Chair California Energy Commission 1516 Ninth Street Sacramento, California 95814

Subject: Comments on the Presiding Members Proposed Decision for the Carlsbad Energy Center Project Amendments

Dear Chair Weisenmiller:

The California Department of Fish and Wildlife (Department) has reviewed the above-referenced Presiding Members Proposed Decision (PMPD) for the Carlsbad Energy Center Project Amendments (Project), dated June 2015. The Department was granted a 30-day review and comment period for the Project per the California Energy Commission's (CEC) Order Partially Granting Robert Simpson's Petition for Reconsideration and Motion to Reopen the Evidentiary Record and Restore my Intervention Rights signed and dated September 22, 2015. The comments provided herein are based on information provided in the Final Staff Assessments dated November 2009 and February 2015, the 2012 PMPD, our knowledge of sensitive and declining species in the City of Carlsbad, and our participation in regional conservation planning efforts.

The following statements and comments have been prepared in an advisory capacity to the California Energy Commission and pursuant to the Department's authority as Trustee Agency with jurisdiction over natural resources.

The proposed Project includes two amendments to the Carlsbad Energy Project (CEP): 1) demolition of additional above-ground storage tanks and 2) expansion of the project as outlined below. Approval for the original CEP was granted by the CEC in 2012. The approved CEP included the redevelopment of 23 acres in the northeastern section of the 95-acre Encina Power Station site, located adjacent to the southwestern shore of the Agua Hedionda Lagoon, in Carlsbad, California (San Diego County). The Pacific Ocean is also adjacent to the site along its western boundary.

According to the November 2009 Final Staff Assessment, the 2012 CEP would use high-efficiency, combined-cycle power generation units fueled by natural gas. The Project includes the following revisions to the 2012 CEP that are relevant to the Department's review:

- 1. 7 acres of additional development;
- 2. Replacement of 2 generating units, each comprised of an associated 139-foot tall, 20-foot wide exhaust stack with 3 generating units, each comprised of an associated 90-foot tall, 13.5-foot wide exhaust stack;
- 3. The decommission, demolition, and removal of the existing Encina Power Station; and
- 4. Use of dry-cooling technology, with no intake or outflow of seawater for once-through cooling; all reclaimed water would be provided by the City of Carlsbad.

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Based on information provided in the February 2015 Final Staff Assessment, the 3 generating units will create air plumes that enter the atmosphere with exhaust temperatures of 781.7 degrees F (p.TT1-3) and velocities of 81 mph (p. 4.11-14). Additionally, the Project will operate as a "peeker" plant, permitted to operate a maximum of 2,700 hours a year, 0600 to midnight each day.

The Department offers the following comments and recommendations to assist the CEC in avoiding, minimizing, and adequately mitigating Project-related impacts to biological resources.

1. In general, the Department agrees that the Project's potential to impact biological resources has been reduced from the 2012 CEP; specifically eliminating the use of seawater for once-through cooling. The Department is concerned, however, with the potential direct and indirect effects of the Project's operations on bird and bat species that are known to occur in and around the Project area. This includes resident sea birds that utilize the adjacent ocean and lagoon environments (i.e., skimmers, terns, grebes, pelicans, and gulls), local raptor species, bird species that migrate along the Pacific Flyway (i.e., shorebirds and waterfowl), and the following bat species: big brown bat, California myotis, red bat, western mastiff bat, Yuma bat, western pipistrelle bat, western long-eared bat, Brazilian free-tailed bat, and pallid bat. The red bat, pallid bat, and western mastiff bat are Department-designated Species of Special Concern.

The Department's concern is not with the potential for bird and bat collision with Project structures but the potential effect of the thermal plumes. The February 2015 Final Staff Assessment states that in 2010 consultants performed a literature review, conducted interviews with CEC staff, and wrote a technical paper that investigated avian interactions with exhaust stacks and plumes (p.4.3-21). Based on a discussion with CEC staff (October 12, 2015), it is the Department's understanding that conclusions made in this technical paper were not based on data collected through implementation of a formal CEC monitoring program but based on anecdotal information provided by energy plant staff/operators.

The Department therefore recommends that an analysis of the potential effects of thermal plumes on birds and bats be undertaken; without such an analysis the Department cannot evaluate the Project's potential to affect these species. The Department acknowledges that undertaking this analysis may be challenging and peer-reviewed publications are lacking on this subject. However, development and implementation of a bird and bat monitoring program could provide much needed data on the potential impacts, or lack thereof, associated with exhaust stacks that release high-velocity thermal plumes. The Department recommends that a monitoring program be developed in coordination with the U.S. Fish and Wildlife Service and the Department and that it be implemented at the Project site.

2. The Department recommends that the Biological Resources section of the PMPD include additional Project-specific information relevant to the analysis of potential effects that was found in other sections of the document. For example, temperature of the thermal plume was provided in the Air Quality section of the staff assessment and velocity of the plume was provided in the Traffic and Transportation section. These operational parameters are also relevant to analyzing potential effects to biological

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resources and should be disclosed in the Biological Resources section. For example, providing data pertaining to plume temperature and velocity as it dissipates with elevation may strengthen the CEC's conclusion that thermal plumes will not affect bird and bat species known to occur in the vicinity of the Project. Additionally, based on a discussion with CEC, it is the Department's understanding that a portion of the transmission system would be placed underground; however, there is no mention of this minimization measure in the Biological Resources section of the Final Staff Assessment.

We appreciate the opportunity to comment on the referenced PMPD. Questions regarding this letter and further coordination on these issues should be directed to Terri Stewart at (858) 467-4209 or Terri.Stewart@wildlife.ca.gov.

Sincerely,

Edmund Pert Regional Manager

South Coast Region

ec: Lauren Kershek, U.S. Fish and Wildlife Service, Carlsbad

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