

STATE OF CALIFORNIA  
ENERGY RESOURCES CONSERVATION  
AND DEVELOPMENT COMMISSION

In the Matter of:	)	Docket No. 00-AFC-13C
	)	
the AES HUNTINGTON BEACH	)	ENERGY COMMISSION STAFF'S
GENERATING STATION	)	DRAFT ORDER REGARDING
RETOOL PROJECT.	)	CONDITION BIO-5
_____	)	

The Energy Commission staff hereby files the attached proposed order addressing the issue of mitigation under Condition of Certification Bio-5. That issue is scheduled to be heard by the Energy Commission at its September 14, 2006 business meeting.

Staff offers the proposed order for three reasons. First, staff notes the absence of an assigned hearing officer to assist the Commission in drafting a decision in this matter. Staff therefore offers the proposed order as a draft decision for consideration at the business meeting. Second, the draft order helps summarize the main points in contention and may help focus the discussion at the business meeting, showing specifically where parties disagree or agree on the points. Finally, the Siting Committee, which held a workshop at which the parties presented their positions, issued an order on September 8, 2006, agreeing with the conclusions and recommendations of the staff's analysis. The staff's proposed order offers a draft that is consistent with the Committee's order and recommendation to the full Commission.

Staff understands that the Commission may reject, revise, or adopt the proposed order as it sees fit after hearing from all interested parties.

DATED: September 13, 2006

Respectfully submitted,

\_\_original signed by\_\_  
PAUL A. KRAMER JR  
Counsel for Staff

**CALIFORNIA ENERGY COMMISSION**1516 NINTH STREET  
SACRAMENTO, CA 95814-5512

**STATE OF CALIFORNIA  
ENERGY RESOURCES CONSERVATION  
AND DEVELOPMENT COMMISSION**

<b>In the Matter of:</b>	)	<b>Docket No. 00-AFC-13C</b>
	)	<b>Order No.</b>
<b>AES HUNTINGTON BEACH</b>	)	
<b>GENERATING STATION RETOOL</b>	)	<b>[PROPOSED] ORDER REGARDING</b>
<b>PROJECT</b>	)	<b>COMPLIANCE WITH CONDITION OF</b>
	)	<b>CERTIFICATION BIO-5</b>
	)	

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In May 2001, the Energy Commission granted an emergency certification for the AES Huntington Beach Retool Project, a 450 MW natural gas-fired power plant. The Retool Project retooled and restarted Units 3 and 4, retired in 1995, at the existing Huntington Beach Generating Station (HBGS) located in the City of Huntington Beach in Orange County. The HBGS uses ocean water for once-through cooling of Units 3 and 4 as well as Units 1 and 2.. Due to the 2001 energy emergency, there was insufficient time to study the environmental effects of the cooling system prior to certification of the project. Rather, AES was required to fund a study of those impacts (Condition of Certification BIO-4). If those impacts are found to be significant, AES is required, after consultation with the Energy Commission Compliance Project Manager (CPM) and state, federal and local resource agencies, to fund mitigation such as “tidal wetlands restoration, creation of artificial reefs, or some other form of habitat compensation” (BIO-5).

The impact study is complete but AES and the CPM and agencies, after several consultations, have been unable to agree about 1) whether the cooling system impacts are significant, 2) the level of those impacts, and 3) the appropriate mitigation for those impacts. Those questions were referred to the full Energy Commission for resolution and considered at its September 14, 2006 Business Meeting. We are persuaded by the staff’s argument that the cooling system impacts are significant and require mitigation and the appropriate mitigation for those impacts is the payment of \$7,956,000 to the Huntington Beach Wetlands Conservancy for restoration of the Huntington Beach Wetlands.

**ENERGY COMMISSION FINDINGS**

In making its findings and conclusions, the Energy Commission has considered the following information:

- A. May 10, 2001 Commission Decision on Application for Certification (P800-01-016)
- B. July 17, 2001 Order on Petition for Reconsideration
- C. Transcript of July 25, 2006 Siting Committee Workshop held in Huntington Beach
- D. July 25, 2006 Powerpoint presentations of Commission Staff and AES
- E. Siting Committee Minute Order Regarding Compliance With Condition Of Certification BIO-5
- F. August 4, 2006 Letter from Eric Pendergraft (AES) to Paul Richins (Energy Commission Environmental Office Manager)
- G. August 30, 2006 cover memo from CPM Donna Stone and final staff analysis (Huntington Beach Units 3&4 Entrainment and Impingement Study Results, Mitigation Options, Staff and Working Group Recommendations, and AES' Response and Objections to the Recommendation) dated September 14, 2006
- H. Oral information and argument presented at the September 14, 2006 Energy Commission Business Meeting.
- I. [additional documents presented at the Business Meeting]

The Energy Commission finds as follows:

1. As required by Condition BIO-4, AES funded and conducted a study of the entrainment and impingement impacts of the once-through cooling system. The study was overseen by representatives from the Energy Commission and its consultants, representatives from AES and its consultants, and representatives from the U.S. Fish and Wildlife Service, the National Marine Fisheries Service (NMFS), the California Department of Fish and Game (CDFG), the California Coastal Commission, and the Santa Ana Regional Water Quality Control Board (RWQCB), who provided input into the sampling design and methods for impacts analysis, and approved the final study plan.
2. The operation of the cooling system at maximum permitted levels will destroy aquatic species in all stages of life from eggs to mature adults.
3. The empirical transport model (ETM), provides the most comprehensive method for understanding ecosystem impacts of entrainment by the cooling system. Other possible methods—adult equivalent loss and fecundity hindcasting—suffer from a lack of demographic data necessary for their use. The ETM model estimates the proportion of larvae lost over the area from which they are at risk of entrainment. Multiplying that proportion of organisms entrained by the area over which they are at risk of entrainment, gives the area of habitat production foregone (APF)—the

equivalent amount of ocean habitat it would take to produce those lost resources. Application of the ETM to the BIO-4 study data yields an APF of 104 acres for Units 3 and 4.

4. Operation of Units 3 and 4 will result in the loss of the equivalent of 104 acres of ocean habitat. Populations of six croaker species (white croaker, yellowfin croaker (*Umbrina roncadore*), black croaker (*Cheilotrema saturnum*), California corbina (*Menticirrhus undulatus*), white sea bass (*Atractoscion nobilis*), and spotfin croaker), have declined in Southern California since 1977. Spotfin croaker and white croaker are among the species whose larvae are entrained in greatest number at HBGS.

5. Some of the species entrained at HBGS are prey (food) for endangered birds such as the California brown pelican and the California least tern. The Federal threatened western snowy plover, which forages on beaches near the HBGS, eats young sand crabs; frequently entrained invertebrates include sand crab larvae.

6. Restoration of coastal wetlands, while not the direct replacement of nearshore ocean habitat, will provide nursery habitat for many nearshore species and export organic matter that enhances coastal food chains. Two wetlands restoration sites and the creation of artificial reefs were identified as potential mitigation options by the parties. The best of the three sites is the Huntington Beach Wetlands. Planning for their restoration is further along, making it likely that they can become productive sooner than the other options. They are also less costly to restore than the other wetlands option.

7. The amount required to restore 104 acres of the Huntington Beach Wetlands and to maintain the restored area for ten years is \$7,956,000.

## **CONCLUSIONS AND ORDER**

Pursuant to Condition of Certification BIO-5, the impacts of the HBGS once-through cooling system are significant, both for the loss of habitat and as a contribution to the loss of species that are in decline. The entrainment losses of larvae and juvenile invertebrates are also significant because they serve as food sources for endangered birds such as the California brown pelican, the California least tern, and the Federal threatened western snowy plover. Because these impacts are significant, mitigation is required. The appropriate amount of mitigation is the payment of \$7,956,000 to the Huntington Beach Wetlands Conservancy for restoration of the Huntington Beach Wetlands. AES and Commission staff shall comply with the requirements of condition BIO-5 on the basis of these determinations.

September \_\_\_\_, 2006

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**IT IS SO ORDERED.**

Date: September \_\_\_\_, 2006

STATE OF CALIFORNIA  
ENERGY RESOURCES CONSERVATION  
AND DEVELOPMENT COMMISSION

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JACKALYNE PFANNENSTIEL  
Chairman

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