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# W14

DATE: August 22, 2002

TO: Coastal Commissioners and Interested Parties

FROM: Jaime C. Kooser, Deputy Director
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SUBJECT: **Status of Duke Energy's Morro Bay Power Plant Modernization Project**

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Duke Energy ("Duke") proposes to demolish the existing 1,002 megawatt ("MW") Morro Bay Power Plant, including the plant's three 450-foot tall stacks, and replace it with a new 1,200 MW combined cycle power plant (a net increase of 198 MWs) with four 145-foot tall stacks. The new plant would be constructed adjacent to the existing plant on the site of existing oil fuel tanks and would connect to the existing PG&E Morro Bay Switchyard. Like the existing plant, Duke proposes to use water from the Morro Bay estuary to cool the new plant's steam exhaust—known as "once-through cooling." As such, Duke proposes that the new power plant use the existing plant's cooling water intake structure, seawater channels, and discharge canal. New cooling water pumps will be installed at the intake structure. These pumps have a maximum capacity of 475 million gallons per day (MGD) of seawater. Duke proposes to limit its water use to 370 MGD, calculated on an average annual basis.

The proposed use of seawater has generated much controversy. As seawater is withdrawn from the estuary, so too are fish, larvae, and other marine organisms. Thus, under the direction of staff from the Central Coastal Regional Water Quality Control Board ("RWQCB") and a Technical Working Group (comprised of agency and independent scientists), Duke conducted studies to quantify the existing plant's entrainment (organisms that pass-through the screens into the power plant), impingement (organisms that get trapped against cooling water intake screens) and thermal discharge effects. The results of the entrainment study show that the existing power plant entrains or removes an average of 17% to 33% of certain estuarine larval fish species from the estuary. On the basis of this information, staff at the California Energy Commission ("CEC") concluded that the proposed new plant, relying the same cool water intake system, would cause significant adverse impacts to marine resources. At this time, CEC staff is recommending to the CEC that Duke use an alternative cooling system (dry cooling) that will completely avoid the use of seawater.

Duke and the City of Morro Bay oppose the use of dry cooling or any other alternative cooling system. Instead, Duke proposes to pay $6 million to fund projects that control or reduce sediment transport into the bay to promote the natural return of eelgrass beds and thus provide habitat for bay species—known as the Habitat Enhancement Proposal or HEP. Duke is currently developing the details of its HEP proposal for consideration by the CEC and other interested parties. On September 10, 2002, the CEC will hold a public workshop on the HEP proposal.

Duke must also renew its National Pollution Discharge Elimination System ("NPDES") permit issued by the RWQCB. RWQCB staff has stated that even though they believe that an alternative cooling system is feasible for the proposed project, the HEP is a viable alternative and may provide a greater long-term benefit for the Morro Bay estuary and watershed. Therefore, RWQCB staff has recommended to its board that they mandate this mitigation approach in the NPDES permit. RWQCB staff expects to release a draft NPDES permit for the proposed project in October 2002.

Pursuant to Coastal Act §30600(a), proponents of power plants greater than 50 MW capacity proposed for siting in the coastal zone are exempt from the requirement to obtain a coastal development permit. Nevertheless, Coastal Act §30413(d) requires the Coastal Commission to submit to the CEC a report (§30413(d) report) on the proposed project's conformity with the Coastal Act's resource protection, public access, and recreation policies, and the policies and implementing ordinances of the certified local coastal program ("LCP") (in this case, the City of Morro Bay's certified LCP). Furthermore, Warren-Alquist Act §25523(b) requires the CEC to include in its decision on the proposed project "specific provisions" specified by the Coastal Commission in its §30413(d) report that bring the project into conformity with the policies of the Coastal Act.

Commission staff has participated in many public proceedings on the proposed project including workshops and hearings sponsored by the CEC and RWQCB, and Technical Working Group meetings.

Commission staff expects to bring the §30413(d) report to the Commission for its consideration in November or December 2002.