

August 6, 2003 BP Comments to Full Commission – Palomar Energy Project

Who are we: Border Power Plant Working Group, which I am chair of, was established in 2001 in response to the power plant boom in the border region. Many members of the BPPWG live in San Diego County. Our objective is to promote environmentally sustainable plant design for the border region to ensure region can absorb many plants without suffering major negative impact. Design elements are: catalytic air emission controls, emission offsets, dry cooling, and zero liquid discharge. No one involved in BPPWG has any financial interest in dry cooling or ZLD system.

San Diego area is chronically short on water, there are much higher strategic value uses of reclaimed water in the Escondido area than power plant cooling, and the only plant ever licensed by the CEC in San Diego County (Otay Mesa) is dry-cooled. We have a local model for environmental sustainability and it is the Otay Mesa dry-cooled plant design.

One of our first efforts was directed at generating some political momentum behind the issue of power plant water conservation in the border region. That culminated in a June 2002 Border Governor's Conference Declaration, signed by all ten U.S. and Mexican border governors including Gov. Davis, which states: *"Promote the development of an environmental strategy for new electrical generation plants in the border region with the goal of protecting air quality, and, where possible, conserving water resources in the region."* California officials can point to this declaration by the Governor, in addition to Resolution 75-58 and the State Water Code, as a mandate to ensure that new power projects maximize water conservation.

What are we after at this point: A revised PMPD that adequately addresses the following critical PEP issues: 1) the huge discrepancy between the amount of sodium hypochlorite biocide usage proposed and what is needed to effectively address the ammonia in the reclaimed water, 2) the long-term local, regional, and state impact of diverting 3.6 Mgd of reclaimed water to PEP, 3) a fair assessment of dry cooling at PEP using Otay Mesa as a template, and 4) schematics and photo-simulations of the proposed project that accurately reflect reality.

We had thirteen other co-signing organizations on our July 24 comment letter on the Palomar PMPD. Many of these organizations have intervened in other CEC licensing proceedings and include: Butte Environmental Council ♦ California Coastkeeper Alliance ♦ Californians for Renewable Energy ♦ Center on Race, Poverty, and the Environment ♦ Coastal Alliance on Plant Expansion ♦ Communities for a Better Environment ♦ Environmental Health Coalition ♦

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Escuela de la Raza Unida ♦ San Diego Baykeeper ♦ Mr. Bob Sarvey ♦ Sierra Club, San Diego Chapter, Energy Committee ♦ Southern California Watershed Alliance ♦ The Ocean Conservancy.

Much of what we are requesting in a revised PMPD is included in other CEC licensing proceedings: Rationale for including dry cooling in the cooling options analysis for Tesla Power Project is identified by CEC staff on pg. 4.13-26 of the FSA as: *“Based on this increasing pressure and the direction of State water policies to avoid the use of freshwater for non-potable uses where feasible, staff has analyzed the feasibility of using other sources of water and cooling options for the project.”* The Tesla FSA describes dry cooling as the best choice of cooling technologies for a steam power plant with regard to water conservation and that it is equivalent to implementing ZLD in achieving wastewater minimization. Dry cooling is identified as a legitimate cooling alternative in the Tesla FSA. CEC staff optimize the proposed ACC for height and noise and compare the optimized ACC directly to wet cooling alternatives. The standard of measure being applied by the CEC at Tesla is exactly the standard I have been requesting be applied at Palomar for the last year-and-a-half.

We have been consistently correct in identifying omissions or errors in the Applicant’s submittals and the FSA: Applicant estimated no ammonia emissions from the cooling tower until strong evidence provided by Intervenor indicating significant ammonia emissions. Applicant then corroborates the potential for significant ammonia emissions in declaration prior to evidentiary hearing. Intervenor identifies that vastly greater quantities of biocide will be needed unless ammonia is removed from reclaimed water. CEC reaction to this issue at evidentiary hearing is to strike CEC staff document that corroborates Intervenor’s claim from the record. PMPD and Applicant are silent on this issue. However, Public Works of Escondido asks for and receives Escondido City Council approval to install ammonia removal equipment in July 2003. Public Works never mentioned to the city council that the equipment is for ammonia removal, and thereby avoided a potential controversy over the city granting multi-million \$ subsidies of the PEP. The Tesla FSA clearly states that the City of Tracy will provide the ammonia removal equipment to treat reclaimed water going to the Tesla Power Plant. The Tesla FSA was issued in April 2003, prior to the PEP evidentiary hearings.

There is essentially no evaluation of the regional and state water availability impacts of using reclaimed water at PEP. In contrast, both the Tesla AFC and the

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Tesla FSA contain extended discussions of the regional and statewide impact of water use at the Tesla Power Project.

Neither the Applicant nor the CEC has evaluated or considered an optimized ACC at PEP. The Intervenor has performed a preliminary siting and cost analysis of an optimized ACC at PEP, and found that dry cooling at the site is equivalent in present value cost to the proposed wet cooling approach. If the ammonia removal process that Escondido Public Works will construct and operate is included in the cost balance the present value of dry cooling is significantly less than that of wet cooling. If the “Tesla standard” is applied to Palomar, dry cooling would be identified by the CEC as the preferred option due to lower cost and water conservation benefits.

An accurate photo-simulation of the project has not yet been provided: The FSA relies on KOP-3, described as the view from the nearest residential neighborhood, to define three mitigation conditions that will drop the adverse visual impact from “significant” to “not significant.” Intervenor demonstrated during the evidentiary hearings that elevation view upon which the photo-simulation is based (from the AFC) is inaccurate and makes the largest objects in the view, the heat recovery steam generators appear significantly shorter than they actually are. Correcting the scale of the HRSGs, and to a lesser degree the stacks, makes a major difference in the visual impact of the plant from KOP-3. The surface area of gray metal doubles from approximately 2,800 ft² to 5,600 ft². The height of the HRSG visible above the berm increases from approximately 20 feet to approximately 42 feet. This is not a small adjustment to an existing photo-simulation. This is a major adjustment that has a dramatic effect on the visual impact of the plant. The discrepancy in HRSG height can easily be corroborated by looking at the HRSG height relative to the cooling tower height in KOP-6 (far field view) and KOP-3. There is a very definite difference in the height of the cooling tower and HRSGs in KOP-6. There is almost no difference in the height of the cooling tower and HRSGs in KOP-3.

Grid stability in the San Diego area vs. water resource conservation: San Diego County has approximately 1,700 MW of baseload utility boiler capacity. At some point in the future additional power generation assets will be necessary in San Diego County to ensure grid stability when the South Bay Power Plant and Encina Power Plant are removed from service. However, conjectural grid stability issues in San Diego County should not override water conservation considerations that are just as critical to area residents and more immediate.

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Grid stability is the only possible justification for fast tracking the Palomar license, and the stability issue does not have much traction on the near- and mid-term horizon while South Bay and Encina remain operational. There is nearly enough power being generated in the SDGE service area to meet even peak power demand needs in San Diego County. 1,060 MW of new power capacity began flowing through the SDGE service area in June 2003 when two new combined-cycle projects came on-line in Mexicali. This represents the combined capacity of both the Otay Mesa Project and the Palomar Energy Project. CAISO considers the Mexicali projects to be in the CAISO local control area, so from the CAISO standpoint this is highly reliable new power capacity.

California currently has adequate power generation capacity. We have time to thoroughly evaluate licensing applications such as Palomar to ensure the project represents the best balance between the Applicant's interests and the strategic interests of people of California. The CEC's projection on power availability in the summer of 2003 and the next five years appears to be accurate. At no time this summer have reserve margins dipped below 10 percent, and even on the few days when the 10 percent level was reached there were a significant number of generating units in non-emergency outage mode that CAISO could have had up and running if there were serious concerns about reserve margin.

The grid stability issue must be put into perspective. I have been involved in the Regional Energy Planning Advisory Committee in San Diego for the last year, along with a number of representatives from SDGE (Sempra Energy subsidiary). SDGE representatives have repeatedly emphasized that new generation assets are not required in the San Diego area, and that reliance on locally generated power may preclude San Diego residents from getting the lowest power rates available in the open market. However, REPAC is actively pursuing the establishment of a Joint Power Authority composed of many San Diego County cities that could better represent the interest and needs of the local ratepayers.

Summary

Revising the PMPD to adequately address several major outstanding issues is necessary. The areas that need to be addressed are: 1) what entity is removing ammonia from the reclaimed water and what is the capital and net present value cost of the ammonia removal operation (as was done in the Tesla FSA), 2) the long-term local, regional, and state impact of diverting 3.6 Mgd of reclaimed water to PEP, 3) a fair assessment of dry cooling at PEP using Otay Mesa as a template, and 4) schematics and photo-simulations of the proposed project that accurately reflect reality.