

**David I. Marcus**

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**P.O. Box 1287, Berkeley, CA 94701-1287**

**Peter Brundage  
Executive Officer  
Sacramento LAFCo  
1112 I Street, Suite 100  
Sacramento, CA 95814**

**Re: SMUD Annexation DEIR**

**Dear Mr. Brundage:**

**This letter contains my comments on the January 2006 Draft Environmental Impact Report ("DEIR") for the proposed Amendment of the Sphere of Influence for the Sacramento Municipal Utility District (SMUD) and Annexation by SMUD of the Cities of West Sacramento, Davis, and Woodland and portions of Unincorporated Areas of Yolo County. I am submitting these comments on behalf of the Coalition of California Utility Employees (CUE).**

**I am an energy consultant with over 20 years of experience on behalf of clients ranging from state Attorney Generals to utilities, environmental and consumer groups, alternative energy developers, labor unions, and others. I previously worked as a staff member and an advisor to a Commissioner at the California Energy Commission (CEC), and as a staff member at the Environmental Defense Fund. A copy of my resume is attached.**

**I have reviewed the DEIR regarding its analysis of potential impacts from power generating facilities. Based upon my expertise and experience in this area, it is my opinion that the DEIR has failed to identify the potentially significant impacts that may result from the likelihood that this project will result in the increased operation of the Cosumnes Power Plant (CPP).**

**I have examined the DEIR's conclusion that CPP will operate "as often as possible, regardless of the proposed annexation." This conclusion is based upon faulty assumptions and is not supported by the available evidence. Because of the economics of energy markets, there will be hours when CPP would not operate under current conditions, but would operate under the annexation.**

While CPP is more efficient than most other gas-fired power plants in California, it will likely still be more expensive to operate than new gas-fired combined cycle power plants in the Pacific Northwest. California power plants import the natural gas they use mainly from Canada, the Rocky Mountains, or New Mexico. Canadian gas sold in California must travel farther to market than the same gas sold in the Pacific Northwest. As a result of the lower transmission costs, natural gas imported from Canada is thus cheaper in the Pacific Northwest than in California. Platts Energy Daily and other trade press publications publish daily data that confirms this price difference.

The CPP will also be more expensive to operate than coal, nuclear, wind, hydro, or geothermal power plants. For geothermal, wind and hydro, there are negligible fuel costs. As a result, they are cheaper to operate once built than gas-fired power plants. Coal and nuclear power plants have fuel costs, but they are lower than gas fuel costs. The Federal Energy Information Administration (EIA) publishes monthly data that confirms this.

Because power plants with less expensive operating costs will provide cheaper energy when demand is low, there will be hours during the year when the marginal cost of electricity in the spot power market will be less than the marginal cost of operating CPP. During such hours, CPP will not operate.

The marginal cost of operating CPP will be the cost of gas fuel in (\$/MMBtu) times the CPP heat rate of 7000 to 8000 Btu/kwh. The market price of electricity in the spot market is reported daily in the Wall Street Journal and other sources. The market price divided by the price of gas gives an "implicit heat rate" for market-priced generation. Implicit heat rate data is published in the energy trade press. When the implicit heat rate is lower than the CPP heat rate, that means that the market price of electricity is probably lower than the marginal cost of CPP generation. Implicit heat rates below 7000 Btu/Kwh are routinely reported to occur in California every year, particularly during spring months and off-peak periods.

The periods of CPP inoperation will differ under the annexation. PG&E transmits power from generators to load in the annexation area using the grid controlled by the California Independent System Operator ("ISO"). Power transmitted over the ISO-controlled grid is subject to a transmission surcharge. Because SMUD can receive power directly from CPP without using the ISO-controlled grid, the power it receives from CPP is not subject to the ISO transmission surcharge.

The non-surcharge market available to purchase CPP power will expand by the inclusion of the annexation area since the annexation area will also be able to receive power from CPP without paying the ISO surcharge. Because its non-surcharge market will expand under the annexation, the CPP will operate longer and more intensively if the annexation passes than if PG&E continued to provide retail electric service in the area.

The DEIR claims that "When the CPP generates more power than is required to serve SMUD's existing area, surplus power will be sold to the energy marketplace or to the Annexation Territory." This statement implies that such sales will be equal, so that the emissions from CPP will be the same whether or not the Annexation takes place. This is incorrect.

Consider a situation where CPP generation costs \$55 per Mwh to produce (natural gas at \$6.85/MMBtu, the approximate price on 2/10/06; see [http://intelligencepress.com/features/intcx/gas/intcx\\_gas\\_point.emb?pointcode=ICECALPGCG](http://intelligencepress.com/features/intcx/gas/intcx_gas_point.emb?pointcode=ICECALPGCG)); gas delivery costs \$0.15/MMBtu; a heat rate of 7500 Btu/kwh; and a marginal operating and maintenance cost of \$2.5/Mwh. If CPP generation is surplus to SMUD's current customers' power needs, then SMUD will have a choice of operating CPP to serve Annexation Territory needs or meeting Annexation Territory needs with purchased power from the market. Purchases from the market will have to be delivered to the Annexation Territory via the ISO control area, but deliveries to the Annexation Territory from CPP will not need to use the ISO-controlled grid. This is the key distinction the DEIR fails to make, although it was previously pointed out in CUE's EIR scoping comments.

Assume ISO transmission would cost \$3/Mwh. Then CPP generation at \$55/Mwh is preferable to market generation as a source of energy for the Annexation Territory whenever the market price is above \$52/Mwh, due to the savings from avoiding the ISO transmission charge. On the other hand, if the annexation does not take place, then surplus CPP generation that is sold into the market will face ISO wheeling charges to reach its buyer. Thus, the market price would have to be at least \$55/Mwh, and possibly \$58/Mwh, before the buyer would choose to buy from CPP rather than other market choices.

Because the market price will be above \$52/Mwh more often than it will be above \$55-58/Mwh, CPP will be operated more often if SMUD is serving Annexation Territory loads than if PG&E is serving those loads.

The DEIR has neglected the incremental operation of CPP due to the effect of annexation on the transmission cost of delivering CPP generation

outside of the current SMUD service area, and hence has neglected the incremental emissions that will accompany that extra generation.

Thank you for your consideration of my comments.

Sincerely,

A handwritten signature in cursive script that reads "David Marcus".

David Marcus