



# Delta Diablo Sanitation District

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November 4, 2008

California Energy Commission  
Dockets Office, MS-4  
Re: Docket No. 08-GHG OII-1  
1516 Ninth Street  
Sacramento, CA 95814-5512

<b>DOCKET</b>
08-GHG011-1
DATE NOV 04 2008
RECD. NOV 07 2008

**SUBJECT: GREENHOUSE GAS EMISSION IMPACTS OF POWER PLANTS**

To Whom It May Concern:

The Delta Diablo Sanitation District (DDSD) is a regional wastewater agency serving the communities of Antioch, Bay Point and Pittsburg. In 2000, DDSD began operating a regional Recycled Water Facility designed to produce more than 12 million gallons per day (MGD) of tertiary recycled water. DDSD currently provides recycled water for landscape irrigation to the city of Pittsburg, and approximately 7 MGD of recycled water to two local Calpine natural-gas fired power plants for cooling tower water.

DDSD has conducted research on power plant cooling systems using recycled water, including a literature review and project-specific analysis, which indicates that recycled water cooled systems can have significant greenhouse gas (GHG) benefits over air cooled systems. For the example, of a proposed 530 MW natural gas fired power plant for base load electricity generation, it was found that air cooling could result in increased GHG emissions of approximately 12,000 tons of CO<sub>2</sub> equivalents per year. This would be equivalent to the emissions from over 2,000 cars.

While we understand that the additional GHG emissions due to air cooling are only a small fraction of a power plant's total GHG emissions, they are not insignificant, particularly since GHG impacts can be considered cumulative. For power plant siting cases where a reliable recycled water supply can be made available, these unnecessary emissions could be easily eliminated by use of the proven and reliable recycled water cooling technology.

We therefore respectfully request that the California Energy Commission (CEC) incorporate this finding in its approach to address GHG emission for power plants under the California Environmental Quality Act (CEQA). Whether the CEC chooses a programmatic level or a case-by-case CEQA analysis of GHG emissions from power plants, the chosen approach should include a directive to implement recycled water cooling for all siting cases where a reliable recycled water supply can be made available. If project applicants implement air cooling regardless of this directive, they should be held responsible under CEQA to mitigate the additional, unnecessary GHG emissions due to air cooling.

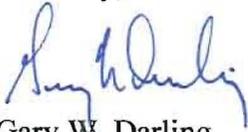
Please note that, in addition to the GHG benefits, recycled water cooling also has the following environmental benefits:

- Offers a drought-proof water supply.
- Reduces wastewater discharges into potentially sensitive ecosystems.
- Offers potential for increased water recycling in the future, which will preserve the State's valuable potable water resources.

We would gladly share the documentations of our findings and stand ready to work with the CEC in developing specific recycled water cooling requirements to be included in a CEQA GHG analysis.

Thank you for considering our request. I can be reached at (925) 756-1920.

Sincerely,



Gary W. Darling  
General Manager

GWD:dj

cc: District File RW-CORRES  
Chron File