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June 4, 2007

California Energy Commission
Dockets Office, MS-4
Re: Docket No. 06-BAP-1
1516 Ninth Street
Sacramento, CA 95814-5512

Re: Docket No. 06-BAP-1; Bioenergy Action Plan

Comments from Steven Brink, Vice-President-Public Resources, California Forestry Association

Dear Commissioner and Chairman Boyd:

The California Forestry Association (CFA) appreciates this opportunity to provide additional comment to the development of woody biomass for power generation in California.

The December 2006 "A Preliminary Roadmap for the Development of Biomass in California" (pp. xii-xx) by the California Biomass Collaborative has done an excellent job of capturing the benefits and remaining barriers to woody biomass development. It is unfortunate the Collaborative will not have recommended actions for implementation until March 2008. CFA believes there are numerous steps that the California Energy Commission (CEC) can take now. There is no reason to wait another nine months for another document from the Collaborative. CFA recommends immediate action on the items outlined in this letter.

Biomass Feedstock Supply

The U.S. Forest Service, California Region has 7.5 million acres of forestland at risk to catastrophic wildfire. The U.S. Forest Service is currently only reducing fuel loading on about 100,000 acres per year, of which an ever-increasing percentage is maintenance of previously treated acres. The current accomplishment is about 60 percent mechanical treatment and 40 percent burning.

The U.S. Forest Service admits that it is treating less than 0.3 percent of the standing inventory annually on the national forests in California and that they are harvesting less

than 1/5 the net growth. The U.S. Forest Service admits that its management strategy on the National Forests in the Sierra Nevada's will lead to forests that are **denser** in the future than they are today (Sierra Nevada Framework 2004 Amendment Record of Decision, p.3).

A change in U.S. Forest Service, California Region policy to produce 575,000 acres of fuels reduction annually would generate about 7.5 million bone dry tons of forest biomass; enough to produce at least 900 megawatts of electricity. The Forest Service has stated they will have to reenter forestlands about every 20 years to keep stands sufficiently thinned and biomass removed to promote healthy forests resistant to insects, disease and wildfire. The Forest Service Blacks Mountain Experimental Forest north of Susanville and the U.C. Berkeley Blodgett Experimental Forest east of Georgetown have both shown independently that revenue from needed commercial thinning can completely offset the costs of biomass removal necessary to achieve a fuels reduction objective. Hence, the additional biomass feedstock is cut, skidded to a landing, put through a grinder, and shipped to a powerplant for **free** through the use of the commercial thinning revenue.

In order to achieve this dramatic change in Forest Service management, federal legislation will be necessary. The Forest Service cannot perform under the myriad of conflicting statutes and resulting lawsuits. The State of California must engage with the Congress to legislate the necessary changes. Promoting healthy forests resistant to insects, disease, and wildfire is a vegetative maintenance activity. As such it should not be considered a major federal action within the context of the National Environmental Policy Act (NEPA). Vegetative maintenance should be categorically excluded from NEPA.

Further, without statutory change, the Forest Service cannot provide a sustainable flow of feedstock, which is vital to maintenance of existing biomass powerplant infrastructure and investment in new infrastructure.

Without the Forest Service returning to intensive vegetative management on its productive, unreserved 9.8 million acres, there is little chance for the State to achieve the woody biomass portion of its renewable energy portfolio.

7.5 million bone dry tons of woody biomass from the National Forests also would provide direct offset to coal or natural gas-fired powerplants; a net reduction of at least 7.5 million tons of greenhouse gas emissions (Gregg Morris, Green Power Institute, see attached graph)).

Forest Service Research (Mark A. Finney) concludes that wildfire could be reduced by 50-60 percent if we just had strategically located fuelbreaks in-place. The percentage reduction in wildfire would likely be much higher if all 7.5 million acres at risk were treated to reduce fuel loading. The reduction in suppression costs for both the Forest Service and Cal-Fire would be in the hundreds of millions. And, a 50-60 percent reduction in wildfire would reduce annual wildfire-caused CO2 emissions in California

by nearly 1 million metric tons (Winrock International, March 2004) and significantly reduce respiratory ailments.

Recognizing Environmental Benefits of Woody Biomass for Power Generation in Covering Costs and Consolidating and Streamlining Permitting Processes

The State of California must engage in recognizing the social and environmental benefits of using woody biomass for power generation in permitting processes. The social and environmental benefits are well documented. (Western Governors Association, Biomass Taskforce Report, January 2006). Biomass powerplants provide a 98 percent reduction in pollutants compared to open burning (Table 1). Compared to a coal or natural gas-fired powerplant, for every 1 bone dry ton of woody biomass consumed in a biomass powerplant, there is a net reduction of 1 metric ton of green house gas emissions (Graph attached).

TABLE 1: Comparison of Emissions Between Biomass Boilers and Field Burning

Pollutant	Field Burning (lb./ton)	Biomass Boiler (lb./ton)	Percent Reduction for Biomass Boiler
Sulfur Oxides	1.7	0.04	97.6
Nitrogen Oxides	4.6	0.70	84.8
Carbon Monoxide	70.3	0.40	99.4
Particulates	4.4	0.26	94.1
Hydrocarbons	6.3	0.00	100.0
Total	**87.3**	**1.4**	**98.4**

(Source: "Emission Benefit From Firing Orchard Residue at Delano Energy Company", Dr. C. Moyer and J. Pont, Acurex Environmental Corp., December, 1997.)

The recent Western Governor's Taskforce Report (January 2006) demonstrates that the environmental and social benefits of diverting biomass to power generation is greater than 11 cents/kilowatt-hour. This benefit is in the form of reduced air pollutants, reduced greenhouse gases, reduced landfill consumption, increases in forest productivity, and 4-5 jobs created per megawatt of capacity. Under the current electric rate structure, 2-4 cents/kilowatt-hour of these uncompensated benefits are necessary to offset prohibitive processing and/or transportation costs of dry agriculture waste, clean wood waste at landfills, and in-forest biomass. These uncompensated benefits are also necessary to provide incentives for:

1. Upgrades to existing powerplants;
2. Attracting private investment for new powerplants;
3. Mitigating air quality issues such as dust associated with biomass at the unloading hoppers and on and off-road diesel engine replacements to meet new air emissions standards;

4. Overcoming transportation and/or processing costs that are prohibitive for a powerplant to obtain fuel supply; and
5. Upgrading or installing new power transmission lines from the powerplant site to the primary electric grid.

Market Expansion

The California Collaborate Roadmap (p. xvii) provides the list of items that need to be done to promote health to the existing biomass powerplant infrastructure and generate investment in additional infrastructure. Most important, the Collaborative recognizes the need for "re-establishment of PURPA SO4-type contracts".

Thank you for this opportunity to comment and don't hesitate to contact CFA should you wish elaboration on any of the implementation items that should be undertaken immediately.

Sincerely,

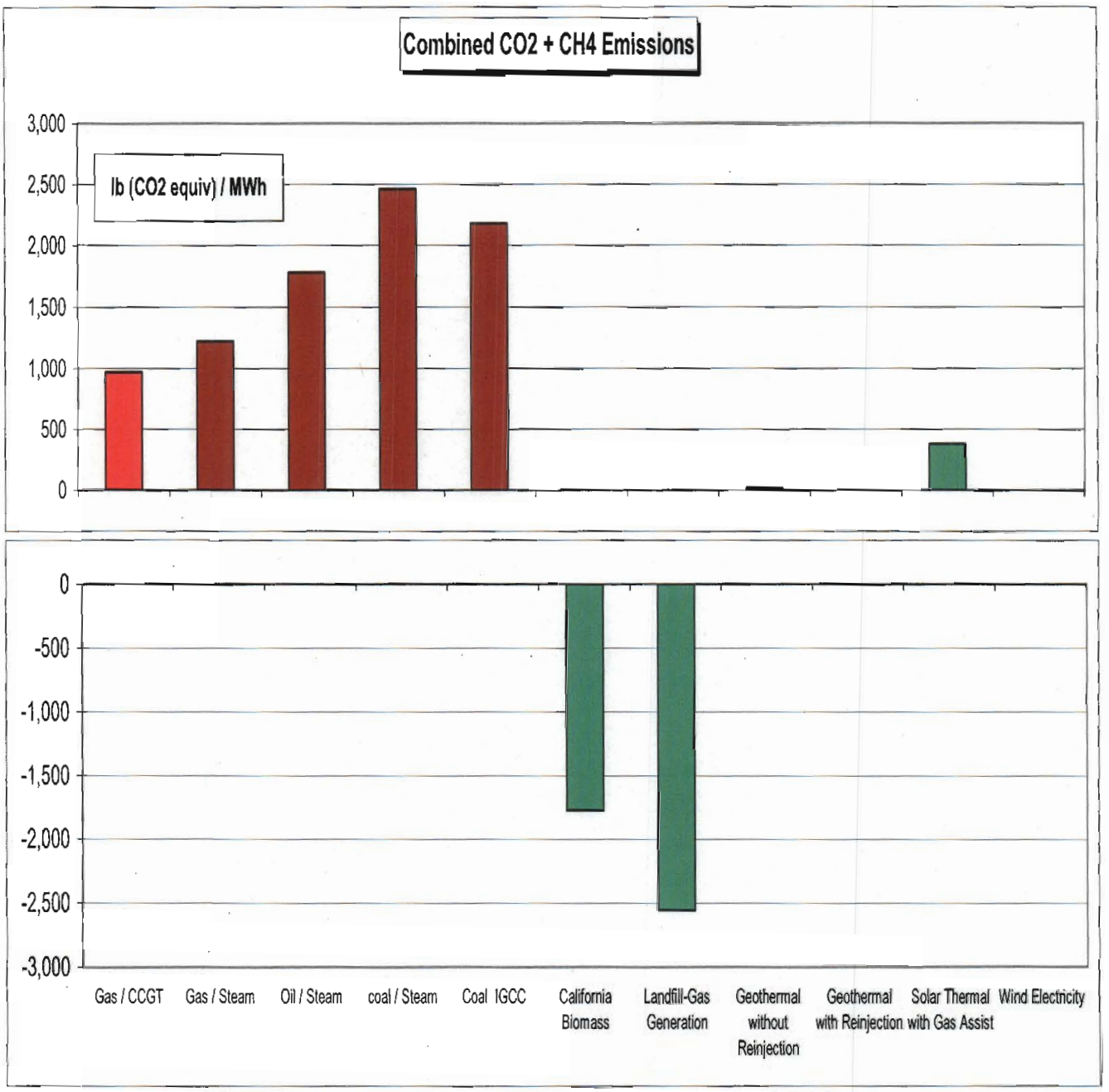
Steven A. Brink

STEVEN A. BRINK

Vice-President-Public Resources

Enclosure

CO2 and CH4 Emissions associated with various types of powerplants


Combined CO2 + CH4 Emissions
lb (CO2 equiv) / MWh
3,000
2,500
2,000
1,500
1,000
500
0
-500
-1,000
-1,500
-2,000
-2,500
-3,000
Gas / CCGT
Gas / Steam
Oil / Steam
coal / Steam
Coal IGCC
California Biomass
Landfill-Gas Generation
Geothermal without Reinjection
Geothermal with Reinjection
Solar Thermal with Gas Assist
Wind Electricity