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February 22, 2010

Mr. Gary Collord  
Air Pollution Specialist, Energy Section  
California Air Resources Board  
1001 - I Street  
Sacramento, CA  
USA 95812-2828

Subject: Comments on RES Work Plan

Dear Mr. Collord

The California Biomass Energy Alliance (CBEA) is a trade association comprised of the State's solid fuel biomass power industry, the largest in the nation. There are 33 biomass electric generating facilities in California, distributed across 19 counties, with a combined generating capacity of over 600 MW of reliable, baseload, renewable power that can be counted on and scheduled. Biomass power is approximately 1½ percent of the overall power generated in the State, and 17½ percent of all the renewable power generated in the state.

The existing biomass power industry provides California with significant economic and environmental benefits by:

- Diverting over 6 million tons of waste wood annually for fuel, preventing the alternate, more environmentally harmful, and greenhouse gas (GHG) generating, disposals of this waste, such as landfilling, open-burning, or biodegrading or burning in the forest.
- Diverting the wood waste also provides a net reduction of over 3.75 million tons of GHG emissions per year. Even further, an additional 3 million tons of avoided GHG emissions per year results from the biomass industry's displacement of fossil-fueled generation by the electric utilities.
- Reduces Criteria Pollutants By preventing open-field burning of 1.5 million tons of agricultural waste each year, biomass plants cut criteria pollutants up to 98%
- Employing about 750 direct jobs at the facilities and 1,200 to 1,500 dedicated indirect jobs in the fuel supply infrastructure. Most of these jobs are in rural areas of the State.

## **Evaluation of Greenhouse-Gas Implications of Biomass Energy Production**

The evaluation of the greenhouse-gas benefits of renewable energy technologies presented at the February 2, 2010, public workshop properly treats the fossil fuels used in the production of energy at biomass power plants as already regulated upstream in the fuels markets that supply them to the biomass facilities. Seemingly as a form of shorthand, the documents assert that the avoided emissions of alternate disposal of the biomass are equal to the emissions from the power plant, thus making biomass a carbon-neutral energy source, like all other renewables. The problem is that this shorthanded way of treating biomass both undervalues the benefits that biomass-energy production provides, and undercuts the future ability of biomass power production to be credited with offsets. This shorthand treatment of biomass in the RES documents can be misinterpreted, and must be corrected. Biomass energy is not a regulated activity under the proposed California cap-and-trade program, and is therefore eligible for the creation of emissions offsets. This treatment could inadvertently undercut the eligibility of biomass to contribute to the state's efforts to implement AB 32..

In its landmark Decision establishing an emissions performance standard for long-term energy contracts, D.07-01-039, the California PUC made the following finding with respect to the greenhouse-gas performance of biomass energy production:

In particular, the record shows that electric generation using biomass (e.g., agricultural and wood waste, landfill gas) that would otherwise be disposed of under a variety of conventional methods (such as open burning, forest accumulation, landfills, composting) results in a substantial net reduction in GHG emissions. This is because the usual disposal options for biomass wastes emit large quantities of methane gas, whereas the energy alternatives either burn the wastes that would become methane or burn the methane itself, generating CO<sub>2</sub>. Since methane gas is on the order of twenty to twenty-five times more potent as a GHG than CO<sub>2</sub>, and since methane has an atmospheric residence time of twelve years, after which it is converted to atmospheric CO<sub>2</sub>, trading off methane for CO<sub>2</sub> emissions from energy recovery operations leads to a net reduction of the greenhouse effect (D.07-01-039, pgs. 18 – 19, and repeated on page 120).

Figure 1 and Attachment 6 to Decision D.07-01-039 provide greater background and detail on the calculation of the greenhouse-gas benefits of energy production from biomass resources compared to alternative disposal of the material. This material provided the foundation for the Commission's finding (stated above).

The ARB needs to revise its documents and make them consistent with established state policy by stating that not only is biomass carbon neutral like other renewables, but that in addition it results in a substantial net reduction in greenhouse-gas emissions compared with alternative disposal of the fuel.

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Sincerely,

A handwritten signature in black ink, appearing to read "W. Phil Reed". The signature is fluid and cursive, with the first name "W." and last name "Reed" clearly legible.

California Biomass Energy Alliance  
Director and Chairman

JMB/kmg