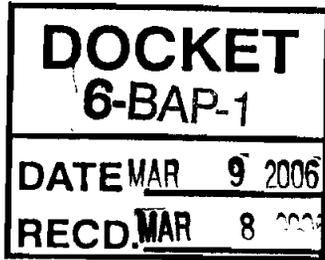


CALIFORNIA ENERGY COMMISSION
PUBLIC MEETING AND WORKSHOP ON THE
DRAFT BIOENERGY ACTION PLAN



March 9, 2006

Sacramento, California

Docket No. 06-BAP-1

Statement of Michael Carrington
President
Carrington and Company

Mr. Chairman, members of the Commission, and members of the Interagency Working Group, I am here today to comment on the Draft Bioenergy Action Plan (Plan). Your contractor, Navigant Consulting, has prepared a comprehensive draft that addresses the subject of bioenergy from a historical perspective, from the status quo, and from the perspective of California's future energy needs. Today, I would like to address the Plan as it relates to the elements of new technologies associated with gasification and pyrolysis. My comments today are related, and in follow up, to my previous recent remarks before the California Energy Commission (CEC) concerning California's overall energy future.

On Pages 2 and 3, under the Summary of Recommendations, the Plan correctly points out Governor Schwarzenegger's support and encouragement of the California Biomass Collaborative (CBC) and his directives to the Bioenergy Interagency Working Group (BIWG). Of particular importance is this statement:

"The policy should also reflect the substantial potential benefits, such as reducing municipal solid waste, which a wide range of conversion technologies can capture".

On Page 3, policy item No. 3 correctly identifies the compelling need to speed up the processes by stating:

"Enhance and accelerate California's existing research, development, and demonstration (RD&D) programs to address all aspects of biomass resource production and use and to capture the benefits of new technologies that use biomass resources more cleanly, efficiently, and

economically”.

Beginning on Page 3, the Plan offers a series of “high-priority action recommendations for 2006”. Under this section, item 1(b) suggests the targeting of 1,500 MW of new biopower capacity by 2020. This is a needed and worthwhile goal. The question becomes how we achieve this goal in a timely and cost-effective manner.

Item 1(e) calls for the CEC and the CBC, in collaboration with the U.S. Department of Energy (DOE), “to fund a selected number of demonstration and pilot projects that are designed to prove the commercial readiness of biofuels production technologies that use lignocellulosic feedstocks”. I am concerned that this language may be excessively limiting by implying that the only projects developed in a priority manner are those exclusively associated with cellulosic feedstocks rather than looking at the broader scope of gasification capabilities. I would suggest that California would be better served by not merely focusing upon biofuels as a priority matter but to also include the high-priority development of all-inclusive gasification and pyrolysis operations that can not only produce biofuels but also provide us with electrical generation and the production of syngas products. This is especially important in relation to the concept of an efficient and cost-effective demonstration project that would supply the taxpayers the best use of their funds and would provide your analysts with the widest scope of data to evaluate.

On Page 15, under “Developments in Electricity Generation from Biomass”, the Plan correctly identifies small scale biomass power plants as being less-than-efficient and it correctly recognizes the potentials of new gasification technologies. As I mentioned in previous testimony before the CEC, my partners and I are ready to work with the appropriate agencies to discuss the realities of our new exclusive gasification technology partnership with General Electric that greatly increases efficiency and output significantly over any previous operations.

Page 23, under “Policy/Regulatory Impediments”, the Plan correctly identifies a number of roadblocks to bioenergy development. I strongly urge the support of efforts to statutorily restructure the definitions of the terms “conversion technology” and “transformation”. This effort should be a major high-priority action item.

Pages 28 and 29, under “Need to Commercialize New Technology”, the Plan correctly recognizes the potential of pyrolysis for producing “a range of products, including bio-oils and bio-based chemicals”. Page 29 specifically makes the following significant finding:

“In the long-run, bio-refineries – conversion facilities that could combine some or all of the above processes- have not

yet been commercially demonstrated.”

This recognized fact is precisely the basis for my earlier remarks above about the need to create a demonstration project that can validate the comprehensive approach. In this specific regard, my partners and I would like to explore with the CEC, and all other appropriate agencies, the possibility of locating a demonstration plant utilizing our advanced pyrolysis technology. I would further suggest that such a demonstration project might be sited in Los Angeles County in or near an existing MSW disposal site. Such a demonstration project could also possibly be constructed to simultaneously demonstrate not only the efficacy of efficient pyrolysis operations but also potentially provide a distributed generation site for input into the local grid for electricity, and into the gas distribution network for syngas.

Page 30, under “Background”, the Plan cites the history of the biopower industry in California in the 1980’s and further notes the relative decline of this industry over time. My partners participated in these efforts in the 1980’s with a plant located in Redwood City under an agreement with Pacific Gas and Electric (PG&E). This previous plant operation was a predecessor to our current new advanced operation but it worked satisfactorily and produced electricity while disposing of various solid wastes. The plant not only worked well but also functioned with no negative environmental impacts. If the staff is not aware of this previous operation, I will make the records available for review and they will also serve as a comparison to our new technology’s increased efficiencies.

Page 33, under “Accelerate commercialization of leading technology prospects”, the Plan correctly observes the fact that the State of California “has a unique opportunity to push these technologies forward into commercial deployment”. The Plan further states that “now is an excellent time to leverage federal research, development, and demonstration (RD&D) activities as well as several bioenergy provisions in the Energy Policy Act of 2005”. I would strongly suggest that these activities become a high-priority item on the agenda in order to help us attain, in a timely manner, the goals that have been set for California’s energy future.

In the quest for identifying the right kind of potential technological solutions in the areas of gasification and pyrolysis, I would encourage the technical staff to be wary of a number of claims that are being made by various entities. History to date has recorded a number of claims that have proven to be either less-than-advertised or downright fraudulent. There have been a number of operations that have been touted as “the solution” only to have been shut down due to technical failures and/or misrepresentations to government officials. I would encourage close scrutiny of all potential operations including the proposals I will be submitting for your consideration.

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Thank you for the opportunity to provide input to this process and I will look forward to working with all of the agencies and stakeholders as we work together to insure California's energy future.