

June 05, 2010

DOCKET
10-BAP-1

DATE JUN 05 2010

RECD. JUN 05 2010

CALIFORNIA ENERGY COMMISSION
DOCKETS OFFICE, MS-4
Re: DOCKET No. 10-BAP-1
1516 NINTH STREET
SACRAMENTO, CA 95814-5512

Subject: 2010 Bioenergy Action Plan

e-mail: docket@energy.state.ca.us

The writer wishes to extend his gratitude to the California Energy Commission (CEC) for this sponsoring this Bioenergy Action Plan Workshop. It appears the regulatory and legislative authorities are again attempting to stimulate the output of renewable biomass generation. The CEC as well as the CPUC have conducted many meetings in an attempt to increase this energy resource. As requested, this writer will attempt to address the questions, but will also present extracts from past communications.

Attachment A- Questions for Public Comment

Panel 1: Getting new biopower generation on the grid

1. What actions can agencies do to best address the following barriers to bringing new biopower generation on line?

- a. Difficulties in obtaining reliable and affordable feedstock materials.*
- b. Lack of commercialization of emerging technologies (not commercially or economically viable)*
- c. High cost of pollution control equipment and advanced small-scale generation technologies needed to meet BACT requirements*
- d. Lengthy permitting and interconnection requirements due to the following....:*

Most renewable energy, even biomass is subjected to the vagaries of supply, biomass has however the advantage in reliability within a defined period of time (such as the summer months, 8-10 months of the year etc.). The energy supply is reliable and can be relied upon consistently for producing base load or even in some cases dispatchable energy. The biomass fuel source may be a waste, perhaps even a nuisance with very little commercial value. Therefore there may be little cost associated with its procurement. (Transportation costs to the generating facility will be the point of another discussion). However, at an opposite extreme the specific case of using corn for ethanol manufacture is illustrated. Corn niblets were used, this is also an important food and feed item and consequently being an item in great demand became quite expensive to procure. The resulting competition for this product severely increased the price of food. This practice should be aborted, only the corn husk should be utilized as a biofuel. The husk has far less commercial value and cost, it would therefore be less expensive to procure. If corn is to be used as a fuel, research should be focused upon the development of a process to efficaciously utilize the cellulosic fiber in the husk. (The writer is well aware of the efforts expended and the difficulties already encountered).

In the writers comments, the methods for stimulating commercialization are discussed more fully.

High cost per unit is inherent in all small unit generation and BACT technologies. Perhaps the willingness of State and Federal funding in the form of grants or low interest loans could help stimulate investment interest.

Lengthy and multiple permitting requirements, the odious interconnection costs and procedures do indeed add significantly to the challenges connected with constructing biomass facilities. Add to this the length of time and the amount of money presently needed to obtain a power purchase contract, all of these factors add a considerable amount to the cost of a project. Unfortunately even when these tasks are completed, the developer finds a great deal of investment reluctance because the remuneration offered does not stimulate investment interest. In effect, the investment community does not believe the reward is worth the risk involved, particularly in the case of the independent power producer. This item will be discussed further in the writers comments.

Panel 2: Opportunities for mixed use and mixed fuel bioenergy facilities

What actions can agencies do to support the development of mixed-use and mixed-fuel development.

Co-digestion

The answer to i. is yes. At present Central California Power (CCP) is undertaking a study to determine efficacy of several as yet related, but proprietary processes. The principal answer to item ii. is providing sufficient remuneration initially to stimulate investment interest, and secondarily to obtain a sustainable long term profit. The writer has No Comment on items iii., iv.

Co-firing

CCP has no plans to co-fire with coal-fired generators and has no comment on the subject.

Co-location

CPC assumes the question is a location suitable for generating electric power from two different but yet related fuel sources. It would appear that the most effective technique to advance co-firing is to locate in an area that has the fuel ingredients required to add to the waste stream, then process the waste stream to produce the subsequent phase of generation. It must be understood however that this action will most probably add to the cost of the overall generation. The combination of materials used can be virtually anything that has an energy producing component. Again, the key question to be answered is: Will the remuneration paid be sufficient to ensure sustainability?

Panel 3: Increasing production of biogas in California for transportation and power production

What actions can agencies do to best address the following barriers to bringing in new biogas.

Most of the answers provided to the Panel 1 question sequence and in the writers comments are applicable to the questions in Panel 3. The vagaries and costs of fuel supply, the odious regulations, restrictions, permitting requirements, the remuneration offered does little at this time to stimulate investment interest.

Writer Comments

While this writer expresses his gratitude to the CEC for conducting this Action Plan meeting, he also wishes to point out that a great many meetings, workshops, symposiums, etc. have been conducted by both the CEC and the CPUC in order to enhance the construction of new renewable generation facilities. In addition, there have been a great many studies conducted by organizations like KEMA and Navigant Consulting to provide information on the status of renewable energy progress worldwide and on the status of the progress here California. Many comparisons made between renewable energy procedures utilized by successful programs in Europe versus the practices used in California have indicated the European programs utilize almost exclusively a "Feed-In-Tariff" process for obtaining a power purchase contract. In addition, they provide a far better price for renewable energy, stimulate the construction of renewable energy by not only assisting with a reduction in odious permitting requirements, but also by encouraging investment. Navigant Consulting prepared an excellent report on Biomass energy several years ago. The report outlined the many different biomass technologies that could be utilized. However the biggest reason for the lack of new renewable energy facilities and in particular new biomass energy has been the lack of investor interest in providing finance. Many renewable projects have gone through the egregious negotiation process currently in use here in California, obtained regulatory approval to proceed only to discover at that point a lack of investment interest.

Contrast the California approach with the approaches utilized by nations with successful programs. To illustrate the example, on May 21st 2007 former Commissioner Geesman held an "IEPR Committee Workshop". One of the issues discussed was the practices of the European Community relative to renewable energy. In the Workshop it was stated the European Renewable Energy Program is "On Track", the goals set are being met, everyone is happy with the progress and with the results. In reviewing the transcripts of the meeting it became immediately apparent the European Community recognizes the costs associated with the production of renewable energy and is willing to pay the price necessary to obtain it. A subsequent workshop held at the CEC on June 30, 2008 examined the procurement process currently in use in Germany. The German program features a "Feed-In-Tariff" which in many ways is analogous to the former Standard Offer (SO) programs used so successfully here in California in the late 1970s and early-middle 1980s. The many advantages of the SO or Feed-In-Tariff program have been discussed before and will not be discussed here.

With respect to biomass specifically, Germany in its intense desire to obtain cost-effective biomass energy has spent a great deal of study time in attempting to produce this type of program. They recognize the socio-environmental benefits and reliability that is obtained from biomass. Their conclusions to date indicate that there are widely varying costs depending on the technology used, a one cost fits all program for biomass does not work! In addition, they are rigorously pursuing methods to ease permitting regulations while encouraging investment. From a study of various reports including those produced by KEMA, it appears they are achieving the goals established. Perhaps a thorough investigation of these procedures may prove useful.

It must be understood that in today's business environment there are many investment opportunities that have far less risk and present a far better investment reward than does renewable energy with the present remuneration structure. There is a great deal of front end expense and time invested in obtaining even a power purchase contract with the present procurement procedure. Add to this the expense, time and uncertainty in obtaining project Certification under the present permitting process. Each step in the process requires quite an expenditure of money to the developer and the investment team. Any failure along any step of this process results in an irretrievable loss of a great deal of money. The process of purchase contract negotiation and Certification is a very expensive, HIGH RISK undertaking.

"Deep Pocket" developers do not have the same financing problems as do the smaller independent power developers, and in addition the IOUs have safeguards against such investment risk. Historically however, the deep pocket developer has been far less likely to undertake the risk of developing the more adventurous (and riskier) energy projects.

Participation on the part of state and federal institutions would give the conventional investment community a level of comfort and the confidence that renewable energy development particularly biomass is a worthwhile undertaking. Perhaps a joint venture partnership in a project could be developed such that the conventional lender could finance the portion of a project with which he has intimate familiarity such as the thermal generation, while public institutions could finance the portion of the project such as fuel collection and processing which does not have the same degree of maturation. The State of California has lending institutions such as the CPCFA (California Pollution Control Finance Authority) to finance pollution control projects. The I-Bank (California Infrastructure and Economic Development Bank) provides finance for projects that provide employment particularly in areas of high unemployment. To date these institutions have not been encouraged to step up to the plate, yet many of the locations that would be selected for biomass facility construction are areas that have both a pollution and an employment problem. Biomass generally uses a fuel that is a waste, whose removal provides socio-environmental benefits and collection provides employment opportunities.

In summation, the simple answer to the lack of progress in developing new biomass facilities is the remuneration offered today. However remuneration is not the only concern for investment institutions, in many cases the techniques required for procurement and firing of the fuel supply have not yet reached the maturation point whereby conventional lenders have developed the necessary level of comfort to provide finance. The independent power developer in the past has provided biomass generation facilities when project finance was available. Finance was available because the remuneration offered at that time was worth the investment risk. There is no lack of interest by power developers in overcoming the daunting challenges to providing biomass facilities in California, the problem is the lack of available finance. In the past when finance was available, independent biomass power producers proved themselves to be a rather resourceful and ingenious lot in overcoming the daunting challenges connected with providing biomass power generation.

Hopefully, this letter will assist the staffs of the CEC and the Bioenergy Interagency Working Group in providing a solution to enhancing the growth of biomass generation. CCP wishes to thank the Energy Commission for the opportunity to present this letter.

Sincerely,

Joe Langenberg
Central California Power
5125 N. Marty Av. #324
Fresno, CA, 93711
Tel: 559-917-5064