

COMMISSIONER JIM BOYD
2010 Optimal Short-Term Strategies for Woody Biomass in California

Heinz Pinchot Forest Biomass Sustainability Forum
February 25, 2010

Panel 4: Regional bioenergy strategy and lessons for renewable energy policy. What is the continuing role of federal and state renewable energy, economic, and natural resource policy in guiding development along optimal lines; what are the regional “lessons learned” that need to be reflected in flexible national renewable energy policies?

Optimum strategy for California to utilize woody biomass for energy.

It is nice to be at a conference where a major objective is to have people to get out of their silos and to talk to each other. I’m here speaking in my role as Vice Chairman of the California Energy Commission, and Chairman of California’s Bioenergy Interagency Working Group. Since 2005, state agencies have been forced to get out of our silos to talk to each other on the subject of biomass.

California has also created the Interagency Forestry Working Group and I see that my friend, George Gentry, Director of CalFire is also here.

Biomass and Electricity: Like other states, California has specific goals to support renewable energy and bioenergy.

But, frankly, good policy goals do not necessarily result in more biomass projects.... For example, in the past decade, only one new biomass plant was built in California, and the number of plants shrank from 67 to 32, and the operating capacity of existing facilities went from almost 967 MW to 700 MW. The gold rush to bioenergy because of lucrative power purchase contracts in the 1980’s ran dry in the following decades.

What does it look like for the future of biomass in California? 244 renewable energy projects were identified by the Governor’s office in December, 2009, as being proposed for California. If all were built, almost 70,000 MW of electricity would come

on-line. Of these proposals, most are solar and wind. Only 7 projects are biomass related....about 225 MW of the 70,000 listed.

It is easy to see from this list that investment dollars are going to large wind and solar thermal projects. Federal tax credit policies also favor these technologies. This preference was clear when Congress let Federal Energy Production Tax Credit for existing open-loop biomass facilities expire in December, 2009; although Senator Baucus is proposing to extend it for one year in legislation being considered this week or next.

At this rate, it will be tough to have biomass be a major contributor to the state's renewal standard portfolio despite the fact it is a base load resource.

There is better news relating to existing facilities. Recently, the Energy Commission staff learned that 3 shuttered biomass plants have re-opened and 4 or 5 facilities successfully re-negotiated new contracts with PG&E. Also, an idled coal facility and two operational coal facilities are also undergoing full and partial fuel switches to biomass.

For the near term, California may need to focus our efforts on maintaining or reopening our existing biomass power plants, while we look for opportunities to expand. Until new biomass conversion technologies are cleaner and more affordable, air quality permits will continue to be a major obstacle to this resource. In some nonattainment air quality districts in the state, permits are not available and in others, offsets are too expensive to obtain.

On the Alternative Transportation Fuels Front

We have data from the Biomass Collaborative showing that there is a potential of 14 million BoneDryTon of woody biomass waste available each year in California. This translates to about one billion gallons of ethanol each year at current technology levels.

We don't have any commercially viable transportation fuel processors up and running yet but we may have some pilots soon. With our California New Vehicle Technology and Alternative Fuels (AB 118) program, we have money available to test potentially viable conversion technologies. We have a \$20 million solicitation for gasification projects now, and a \$19 million solicitation for advanced bio-refineries that the Energy Commission will release soon. Our goal is to fund some good project proposals over the next 6 to 18 months.

US DOE's recent suite of ARRA awards for advanced bio-refineries is promising. Eleven of the 20 awards were for cellulosic and gasification technologies to convert woody biomass to ethanol or biogas. These awards total \$340 million.

Circling back to the purpose of this panel and the Optimum strategy for California to utilize woody biomass for energy, I'm going to talk about short-term policies and actions.

First, we hope to find common ground through conferences like this because a regional and national approach makes sense, particularly with regard to changing federal law regarding the eligibility of wood from federal lands for the Renewable Fuels Standards. Fifty three percent of the potential woody biomass feedstock in California could come from federal land and we have recommended in the State's Bioenergy Action Plan that wood from federal lands should be eligible as part of this program.

- We have requirements to manage this resource sustainability and this is one of the focuses of our Interagency Forestry Working Group. The Energy Commission has \$2 million set aside to help fund basic scientific research needed to help address sustainability questions, and has already completed significant research. Sustainability for communities also has to be a major focus.

- Financing strategies and supports are critical. As I mentioned, we are supporting the extension of the Federal Production Tax Credit for open-loop biomass systems and are working with our California Senators.
- The current 30 percent federal government tax credit to developers of renewable energy projects also helps. Energy Commission staff estimates that 3 biomass restart projects will be eligible to take the investment tax credit and two projects will be operational in 2010.
- At the state level, the Energy Commission supports new long-term state power purchase contracts with utilities in order to provide revenue stability for the biomass industry. Our current pricing structure hasn't spurred new projects but re-powering and re-opening is happening.
- In California we need to improve our permitting process

On the biofuel side of the equation, some short term steps can be taken to help fill the technology and economics gap.

- For alternative fuels, we urge DOE and USDA Forest Service to collaborate on advanced technology projects situated close to feedstock sources that require fuels management work and communities that need jobs.
- And we hope that there will be more federal R&D funding focusing on biomass technologies, and demonstration projects which show that we can use our waste streams in a safe, environmentally sustainable way.

Long term strategic actions that can be considered:

- **Carbon policy:** Implementing and expanding state carbon policies to meet or exceed greenhouse gas emission reduction targets and sending clear price

signals to producers and consumers for encouraging more rapid adoption of higher efficiency technologies and renewable resources will be critical for meeting targets for biomass as well as overall state objectives in renewable energy. Examples AB 32, California's global warming solutions act, low carbon fuel standards and renewable portfolio standards once they are implemented, will provide needed economic support and stimulate increasing investment in all clean technologies.

In conclusion, this conference has raised many important issues that will have to be addressed if the region and the nation want to develop woody biomass as an important component of our renewable energy and fuel mix. I think that it can be developed sustainably, and we look forward to working with all of our partners in this room to achieve this.

I would like to thank the Pinchot Institute and Heinz Center for bringing this regional sustainability discussion to California and the region.