Placer County
AIR POLLUTION CONTROL DISTRICT

110 Maple Street, Auburn, CA 95603 (530) 745-2330 • Fax (530) 745-2373
www.placer.ca.gov/apcd Thomas J. Christofk, Air Pollution Control Officer

August 10, 2012

California Energy Commission
Dockets Office, MS-4
1516 Ninth Street
Sacramento, California 95814

Re: Docket No. 12-EPIC-01

Dear Commissioners and Staff:

Please consider our comments regarding the first triennial investment plan for the Electric Program Investment Charge (EPIC). They are specifically directed towards the EPIC funds that the California Energy Commission will be managing in support of pre-commercial bioenergy technologies and strategies.

Due to the significant wildfire threat to the Sierra Nevada range, a large part of which is contained in Placer County, we recommend that a significant share of the $27 million allocated for the first triennial period target community-scale forest biopower projects. The EPIC funding is provided by investor owned utility (IOU) ratepayers. Direct benefits to these ratepayers from deployment of community-scale forest biopower projects are significant:

- Public Safety. IOU's maintain thousands of miles of transmission and distribution power lines across forested landscapes. Trees interacting with these power lines regularly ignite wildfires that place communities, watersheds and human life at significant risk.

- Protection of Power Generation Infrastructure. Healthy watersheds provide sustained quantities of water to California's significant hydropower assets. Water quality and timing of flow are severely impacted when catastrophic wildfire events sweep across landscapes.

- Protection of Transmission and Distribution Infrastructure. With transmission and distribution systems widely distributed across forested landscapes, this infrastructure is at significant risk to wildfire.

- Reduced Cost Settlements by IOU's. Between 2006 and 2010 the IOU's paid out $59,985,000[1] in fire settlements to state and federal fire agencies for fire suppression and restoration costs associated with 23 fires ignited by power lines.

- Reduced Fire Insurance Premiums Paid Out by IOU's. Fire insurance rates for the IOU's have been increasing in recent years due to high incidence of power line ignitions.

[1]Data provided by CALFIRE and USDA Forest Service.

- Supplement Existing Biopower Infrastructure. The existing biopower infrastructure is aging and inefficient facilities are closing. New biopower facilities will supplement the existing biopower sector with the latest biopower technologies, and supply critically important additional baseload renewable energy. This new biopower infrastructure will also provide much needed family wage employment in rural communities that have experienced job losses in recent years.

- Non-Monetary Benefits. Significant non-monetary benefits such as improved air quality (biomass diverted from wildfires or pile and burn activities), maintaining recreational opportunities (burned landscapes do not attract tourism), conserving wildlife habitat, and mitigating climate change are also accrued but are not easily monetized on a $/kWh basis.

Considering the significant return on investment for the ratepayers, we recommend that 60% of the $27 million of EPIC funds targeting pre-commercial technology demonstration and deployment in the first triennial period be allocated to support community scale forest biopower projects. Attached with this correspondence is a policy paper that provides additional information on why investing in forest biopower technologies makes sense.

We also recommend that support for forest biopower be extended into the second and third triennial investment periods. With almost 25 million acres of California considered to be high and medium priority landscapes needing fuels treatment, there is much work to be done to return our forests to a healthy and fire resilient condition. Investment of EPIC funds for bioenergy demonstration and deployment will require a long term investment strategy.

Thank you for this opportunity to provide comments.

Sincerely,

For

Tom Christofk
Air Pollution Control Officer

cc: Randy Moore, Regional Forester, PSW Region, USDA Forest Service
Ken Pimlott, Director, Cal Fire
John Laird, Secretary, California Resources Agency
Jim Branham, Sierra Nevada Conservancy

Attachments:

District White Paper Titled "EPIC Funds to Encourage Deployment of Community-Scale Forest Bioenergy Facilities in California"

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EPIC Funds to Encourage Deployment of Community-Scale Forest Bioenergy Facilities in California

INTRODUCTION

Between 2006 and 2010, over 4.5 million acres of California forests have been impacted by wildfire.[1] Costs to suppress these wildfires have averaged approximately $1.2 billion per year.[2] Recent studies confirm that there is a strong likelihood of increasing wildfire size and severity unless forest fuels reduction treatments are implemented.[3] These treatments involve removing excess biomass fuel (mostly brush and small diameter trees) built up in the forests, which reduces the severity and scale of wildfires. Figure 1 highlights California forest landscapes considered to be at risk to wildfire, and existing hydropower assets that are also at risk.

Figure 1. California Ecosystems at Risk to Wildfire[4]

[1]Data provided by CALFIRE and the USDA Forest Service.
[2]IBID.
[3]USDA Forest Service, Pacific Southwest Research Station. 2009. *Biomass to Energy: Forest Management for Wildfire Reduction, Energy Production, and Other Benefits.* California Energy Commission, Public Interest Energy Research (PIER) Program. CEC-500-2009-080.

[4]Map provided courtesy of the Fire and Resource Assessment Program, Department of Forestry and Fire Protection.

Bioenergy facilities that utilize excess forest biomass as fuel can help mitigate the unhealthy, overstocked condition of California's forests and reduce the threat of catastrophic wildfire by providing a ready market for the excess biomass. Development of additional biomass power generation facilities that are strategically located near forest communities and valuable assets (upland watersheds serving hydropower facilities and domestic water supplies) would provide markets for biomass removed as a byproduct of forest restoration and fuels reduction activities. Unfortunately, the economic cost to collect, process and transport this fuel is considerable and represents a barrier to development of small-scale bioenergy facilities.

EPIC FUNDING FOR BIOENERGY PROJECTS

EPIC funds available to support bioenergy projects should be used to support demonstration and deployment of community-scale (< 3 MW) forest biomass energy facilities. The purpose of such support would be to put forest biomass fueled facilities on a level playing field with other renewable energy technologies. This is essential for the economic viability of forest biomass facilities, particularly since the California Public Utilities Commission approved the Feed in Tariff auction process which puts all small-scale baseload renewable generation projects in competition with one another. If EPIC funds were made available to level the playing field for these community-scale forest bioenergy facilities, there would be a considerable payoff to the investor-owned utility (IOU) ratepayers and taxpayers in general from the reduction in wildfire risk. Benefits to ratepayers include reduced costs for rebuilding transmission infrastructure, reduced fire insurance costs, and reduced legal settlements for the IOU's. Societal benefits from the reduction of wildfire are very significant including reduced fire-fighting costs, protection of key watersheds and forests, prevention of sedimentation of flood control facilities and reservoirs, improved air quality due to reduced wildfire emissions and reduced pile and burn treatments (current management technique for excess forest biomass).

ADMINISTRATION OF EPIC FUNDS

Administration of EPIC funds in support of the deployment of community-scale forest biomass power projects could be accomplished in a number of ways. Our suggestion is to provide lump sum grant funding to community-scale forest biomass project developers. Providing up-front capital cost grants to forest bioenergy projects that meet desirable criteria (e.g., located near communities at risk to wildfire, or near sensitive watersheds) will assure optimized return on investment for the IOU ratepayers and California taxpayers. Due to the significant capital cost required to deploy small-scale bioenergy projects and the challenges to secure private sector financing, a lump sum payment to mitigate capital costs will have the most immediate impact in support of project deployment. The following sensitivity analysis shows that an initial investment of funds into a project can have a significant impact on the power sales price (required to meet private sector return on investment).

Table 1. Cash Grant Sensitivity Analysis Results

CASH GRANT FOR CAPITAL EXPENSES ($)	POWER SALES PRICE ($/kWh)
$500,000	$.1601
$750,000	$.1539
$1,000,000	$.1477
$1,250,000	$.1415
$2,500,000	$.1104

The sensitivity analysis used to generate Table 1, was completed as part of a feasibility evaluation for a community-scale forest bioenergy facility in North Fork, California.[5] The capital costs of this facility are estimated to be $4.5 million. As shown in Table 1, a cash grant of $2,500,000 can bring down the required power sales price to just over $.11/kWh, which allows the project to compete with other small scale baseload technologies (e.g., biogas, urban wood waste bioenergy facilities). The current cost for harvest, processing and delivery of forest biomass is estimated to be $45 - $65/bone dry ton (BDT). For this analysis we assumed a $50/BDT fuel price.

A grant program would be straightforward to develop and administrate, since the CEC could use existing grant staff and could modify the application process using existing CEC grant programs as a template. This initial public investment would have the additional benefit of assisting project developers in obtaining private capital funding needed to demonstrate and deploy community-scale technologies.

There are a number of communities and project developers working on siting small-scale forest biomass projects in California. Listed below in Table 2 are community-scale forest bioenergy facilities that are currently in development and could be deployed quickly if EPIC funding were available.

Table 2. Community Scale Forest Biomass Projects Currently in Development

SPONSOR	LOCATION	SCALE
Placer County	Truckee, California	2 MW
North Fork Community Development Council	North Fork, California	1 MW
Calaveras Healthy Impact Products Solutions, Inc.	Wilseyville, California	3 MW
Indian Valley Community Service District	Greenville, California	3 MW
CDF Parlin Fork Conservation Camp	Fort Bragg, California	1 MW
Yuba County Watershed Protection & Fire Safe Council	Marysville, California	3 MW
Eastside Biomass Project	Mammoth Lakes, California	1 MW
Dinkey Collaborative/Southern California Edison	Shaver Lake, California	1 MW
Unity Forest Products	Yuba City, California	1 MW
	TOTAL	**16 MW**

[5]Feasibility Evaluation of Biomass Business Sorting and Processing Facility at the North Fork Mill Site. TSS Consultants, January 12,2012.