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

April 24, 2013

Adam Schultz
Energy Division Staff
California Public Utilities Commission
San Francisco, CA

Re: Comments on Draft Consultant Report on Small-Scale Bioenergy

Dear Mr. Schultz,

The Placer County Air Pollution Control District (District) is generally pleased with the study prepared by Black & Veatch. These informal comments on the report have been drafted by the District and Sierra Nevada Conservancy (SNC) in consultation with the U.S. Forest Service, CALFIRE, and the University of California at Berkeley Forestry Department, and several other parties associated with the Biomass Working Group. These comments were developed in order to improve the Black & Veatch product. We have organized our comments based on the questions presented by staff, and we have added related comments in the general order of the study, as well. As these comments were drafted in partnership with the SNC, please note that the term "District" throughout the document refers to both the District and SNC. We look forward to further discussions at the workshop on May 2nd.

Issue One: Resource Quantification

CPUC asks: Whether the resource potential estimates included in this draft study are accurate?

The District generally agrees with the product potential estimates and analysis of forest management by products found on page 3 of Appendix A. The CALFIRE data collected and presented in 2005 related to product availability continues to be a valid basis for determining forest biomass potential in California. We understand that CALFIRE is working on an updated database that will provide information on a more localized basis that will provide even higher levels of specificity on feedstock availability potential. While this newer data will be helpful, the District maintains that the information provided is adequate and that the implementation of SB 1122 should not be delayed while CALFIRE continues its work.

The District has become aware of one significant issue relating to how the study describes the comparison of interconnection and resource availability. Within Section 3.2 the study states that "the county specific resource estimates were divided by the IOU low-cost interconnection potential to provide a relative understanding of the locations that may face the greatest interconnection restraints". This explanation does not adequately describe what the maps are depicting. Map 3-4 does not actually depict potential, but really constraints, and it does not adequately articulate that

such constraints could be interconnection *or* resource availability. The sentence above should be edited to more specifically describe the analysis.

Also, the study should include the Energy and Environmental Economics (E3) data that "began with 2010 load shape at substations", and it should describe what else it used to determine interconnection potential within each county. Without including this data, the study is less useful to determine where actual projects may be placed. For example, to be green, the county either has some interconnection potential and little resource, (2 MW of potential resource/10MW of potential low-cost interconnection = 0.2 = green) or lots of interconnection potential and lots of resource (200 MW of potential resource/500 MW of potential low-cost interconnection = 0.4 = green). This amount of variability in outcomes is not helpful. The study needs to include the "low cost transmission potential", as determined by E3, in a separate table for each county so that the CPUC can determine actual potential for development. The District has discussed this issue with research staff at the UC Berkeley Center for Forestry and refers the CPUC to their letter for more information on this subject.

Other issues related to resource potential

Biomass and its locational flexibility

Beyond product potential estimates and analysis, the District would like to point out some other Transmission Availability concerns related to the Resource Quantification. In several different places, the report assumes that bioenergy facilities can be moved easily in order to better take advantage of interconnection potential. Generally speaking, this assumption is not the case when it comes to forest biomass. Forest biomass has a slightly higher level of flexibility because it is not completely dependent on an onsite business such as dairy or wastewater. Nevertheless, the site location of such facilities is limited. First, feedstock must come from fire prone areas consistent with the statute, and such feedstock can be significantly limited due to transportation costs and feasibility.

Transportation of forest feedstock is the single largest contributor to cost when it comes to forest biomass to energy. For many operations, feedstock represents approximately one-third to two-thirds of the total operational cost of the facility (depending on if the debt has been serviced). Feedstock aggregation is dependent on trucking costs which average between $85 and $100 per hour. A typical chip van can hold 25 tons of green (wet) feedstock. With moisture content for forest-sourced material averaging between 45% and 55% moisture, a chip van delivery is approximately 12.5 bone dry tons. Using the Black & Veatch assumptions in their LCOE model, a 1 MW biomass facility uses between 0.8 and 1.0 bone dry tons per hour. At highway speeds, assuming 60 mph for ease of calculation, the additional costs of moving away from a feedstock source is $0.2454/mi-MWh (using $100/hr, 0.92 BDT/hr, and round trip pricing). Over a year (85% capacity factor), a 1 MW project will incur additional costs of $1,826/mi, which equates to over the lifetime of a project (20 years) $36,520/mi per MW. These high transportation costs should be evaluated against potential savings that could be incurred from changing locations to improve interconnection. Such improvements in interconnection may not outweigh the costs associated with that location's increase in feedstock transportation costs over the life of the project. This issue needs further description within the report.

Land ownership and regulatory constraints is another barrier to the movement of sites. If a project proponent is not the owner of a potential site, then the purchase of land can be very costly and complicated. Also, local zoning and land ownership limitations can pose a barrier. There are a limited number of parcels that are zoned to allow for construction of such projects (generally would be an industrial zone designation). If zoning needs to be modified, there will be a government process to change zoning that could also include the need for a general plan amendment, which adds to the cost and time of completion.

Another issue for forest biomass, and all bioenergy sectors to some degree, is that feedstock aggregation and operations prices are tied closely to labor and fuel (e.g., diesel) prices. Both of these prices are beyond the control of the bioenergy industry and can vary substantially with time. With 10 to 20 year fixed-price PPAs, developers must hedge their risk substantially when setting a PPA price to insure that they will be covered for rising diesel prices and labor prices over the next two decades. Without an ability to have an adjustment for labor and transportation fuel inflation, the need to manage risk will place an additional burden on the rate-payer.

One way of hedging the risk of cost escalations is to co-locate with a business to sell electricity and potentially heat to the co-located customer. This requires a business with the drive to support bioenergy projects, an appropriate onsite load, and/or a heat demand. To minimize the risk of labor and diesel fuel cost increases, bioenergy developers often have a minimal amount of economically viable locations to choose from.

Using shrubs for biomass to energy

In several locations the study questions the use of shrubs as a biomass fuel, and suggests that if technology can be built to use this type of waste, there would be a higher resource potential in San Diego. At this time, however, the technology simply does not exist. Chaparral poses unique challenges that make it impractical to include in consideration for siting of bioenergy facilities under SB1122. Chaparral is very costly to harvest, collect and transport. Standard fuels hazard reduction practices for chaparral include manual cutting, hand piling in place and mechanical reduction methods, including piling brush with a dozer or excavator in the field and burning piles in place, or use of a mechanical masticator that shreds and disburses shredded materials on the forest floor. None of these practices involve cutting, bunching and removal of the cut materials - because the costs of these operations are prohibitive.

Incidental amounts of brush are cut and transported to collection facilities and landfills by homeowners in urban and rural home fire clearance programs within the wildland urban interface areas. These volumes could be redirected to biomass facilities, but the real cost of such collection is several thousand dollars an acre equivalent, and up to a hundred dollars a ton, because of the labor intensive methods used to harvest, collect and transport these materials. The collection of this material is not commercially viable. Forest landowners (as opposed to small lot owners in wildland urban interface areas) will not be able to afford such treatments and practices unless markets were capable of covering these costs per acre.

Mapping

In the 2012 California Bioenergy Action Plan the Sierra Nevada Conservancy, CALFIRE, and CEC, under the direction of the Natural Resources Agencies are required to “continue working with stakeholders and expanding the forest biomass collaborative to identify and promote small-scale forest biomass projects that reduce fire hazards, restore healthier, more resilient forests, provide renewable energy, and promote rural economic development. The CPUC and CalEPA should also participate in the forest biomass collaborative.” SNC, with the assistance of CALFIRE, CEC, PUC and other stakeholders are also required to “Refine criteria for ‘community-scale’ biomass energy facilities, identify a few candidate projects, and seek developers and cost-share for deploying and demonstrating commercial and emerging community-scale bioenergy technologies.”

The District supports the State agencies listed above in their efforts to collect information to support developing location criteria to identify optimal locations for facilities, and this study can provide critical

information. Further information from other agencies like the SNC may also include additional information such as non-operational mill sites that can serve as viable locations for bioenergy facilities. The CPUC and the IOUs are important partners in developing baseline information and are particularly key in providing technical expertise and energy generation data. The District believes that this is a reasonable request that the CPUC and utilities help the named agencies to compile the data to identify optimal facility locations.

As mentioned earlier, the report states that Black & Veatch worked with Energy and Environmental Economics (E3) to determine which California counties present the greatest interconnection challenges (or really, what should be described as imbalance between interconnection and resource availability) for small-scale distributed generation. The report identifies counties within the northern section of PG&E territory (Humboldt, Mendocino, Glenn, Plumas and Sierra counties) as potentially having the greatest interconnection problems. As mentioned earlier the "problem" is that they have a proportionally large amount of biomass in comparison to interconnection availability. The following large-scale maps of Humboldt, Mendocino, and Plumas county show forest biomass availability (in BDT/yr), existing transmission lines, and substation capacity to indicate the interconnection challenges in these counties.

In order to optimally site forest bioenergy facilities across the state, however, a more useful mapping exercise would be to include detailed, large-scale maps of counties where the greatest potential resource and interconnection capacity are available. Butte, Nevada and El Dorado counties, for example, appear have both high forest biomass MW potential (10-36MW, see CPUC Forest Resource Potential map) and low Ratio of Resource Potential (0-50%, see CPUC Interconnection and Resource Availability Comparison map). Other Counties that are a high priority to, are those with forest bioenergy projects in the planning stages as determined by SNC. A list of these 11 counties is attached to these comments. Ideally the PUC would provide maps for all of the heavily forested counties in the state. The District believes that this is a reasonable request that will provide a much better tool for the program providing an initial screening tool and will complement the request above that involves developing facility location criteria.

The last issue that the District would like to bring up within this section is related to the maps. First, the title of the map showing forest potential, map 3-3, should be entitled "Forest Resource Potential Based on Fire Risk". That way there is no confusion that this map is not simply depicting where, in general, forests and trees are located.

Levelized Costs of Generation

CPUC asks: whether the levelized cost of electricity (LCOE) estimates included in this draft study, as developed by the attached Excel model, are reasonable? If you believe that the cost estimates are not reasonable, please provide publicly available source data to support your assertions.

The most critical factor to address is that for the purposes of LCOE calculations, we recommend that Black & Veatch separate the forest and agricultural feedstock costs. First, the statute divides agricultural residue and forest biomass into two different categories, and as such, they should not be combined within the report. Forest feedstocks are typically more expensive that agricultural feedstocks due to the relatively higher cost of collecting and processing forest feedstocks. The range of forest feedstock costs should be - $40/dry ton for the low estimate, $50/dry ton for medium estimate and $60/dry ton for the high estimate. This cost estimate assumes that forest feedstocks are primarily sourced from landscapes located 10 to 30 miles from the bioenergy facility.

Also, the District finds that Table 4.5, which summarizes forest and agricultural feedstock costs assuming a low estimate of $20/dry ton, medium estimate of $30/dry ton and high estimate of $40/dry ton is listing costs as too low because current costs to collect, process and transport forest biomass material are consistently higher than those used to calculate the Table.

Recent forest bioenergy feasibility studies1 completed in early 2012 by TSS Consultants for potential forest bioenergy projects in the Sierra Nevada region confirmed that the representative costs to collect, process and transport forest biomass ranged from $40 to $60/dry ton (assuming a 30 mile one-way haul). A research team lead by UC Berkeley, Center for Forestry have preliminary results2 consistent with this these costs. If haul distance exceeds 30 miles or collection/processing costs are higher (e.g., due to operations on steep slopes) costs can reach $70/dry ton. The Black & Veatch report contained no detailed discussion regarding the costs to harvest, collect, process and transport forest-sourced feedstocks to market. The fact that these costs are directly coupled with the cost of diesel fuel is critical. As diesel prices escalate (not if, but when) the delivered cost of forest biomass will ramp up proportionately.

In summary, the subsection of Appendix D entitled "Forest and Agricultural Residues" should be re-written to analyze forest biomass exclusively, taking into consideration the information provided here and potentially other information exclusive to forest biomass issues.

Finally, the District notes that Table 4-6 shows low solids biomass cost ranges from $40/dry ton to $60/dry ton for 20 MW projects. We assume that these feedstock costs are higher than Table 4-5 feedstock cost estimates due to higher transport costs to supply the larger 20 MW facility (when compared to 3 MW facility consistent with SB 1122). Larger facilities typically require longer transport distances to source adequate supply, but the difference in ranges between the two tables should be explained within the report.

Implementation Assessment (Section 5.4)

CPUC asks: Whether there is a preference, and the rationale for such a preference, for one of the resource allocation options described for allocating SB 1122 technology targets by utility?

The work of Black & Veatch illustrates how the allocations would be determined based on load (not taking resource availability into consideration), or other options that consider resource availability, but would either require legislative change to the requirements of the Act, or consultation with state agencies to change the industry based categories as allowed under the Act. Because regulatory delays could seriously undermine this fledgling industry, it is important that resource allocations be adopted that require the minimum amount of legislative intervention, or input from agencies outside of the CPUC.

Option 1 presents difficulties with respect to resource availability. In three cases, there are not enough resources to meet the resource allocation targets by IOU (there are insufficient resources for SCE and SDG&E to meet their forest energy allotment and there are insufficient resources for SDG&E to meet its dairy energy allotment under Option 1). All other options require significant program delay.

1Wilseyville Woody Biomass Value-Added Product Yard Feasibility Study, January 2012. Feasibility Evaluation of Biomass Business Sorting and Processing Operations at the North Fork Mill Site, January 2012.

2Tittmann, Peter, Bruce R Hartsough, Bruce Goines, and John Shelly. 2013. "Forest-sourced Biomass Supply Chain Costs". Richmond, CA.

The District now offers Option 7, which we believe meets the requirements of the statute, and provides for the most efficient way forward without triggering the need for consultation with the state agencies described in the Act.

The language of the Act, with respect to allotment of forest resources, states that "[a]llocations under this category shall be determined based on the proportion of bioenergy that sustainable forest management providers derive from sustainable forest management in fire threat treatment areas, as designated by the Department of Forestry and Fire Protection." This language suggests that a "hard cap" should be used to limit the forest energy allotment to the amount of resource available. Option 1can be modified to apply the limitations of resource availability and still maintain the total allocations based on load, and the resource capacity constraints.

We note that Black & Veatch attempted to apply these hard caps in Option 3, but they placed those caps in the context of changing the statutorily required procurement totals. Using hard caps in conjunction with the IOU total allocation based on load solves the problem.

Applying these hard caps to Option 1 results in the following distribution (total resource availability in parenthesis):

IOU	WWTP and Green Waste	Dairy	Forests	IOU total allocation
PG&E	35 MW (101)	41 MW (340)	33 MW (277)	109 MW
SCE	56 MW (115)	48 MW (118)	15 MW (15)	119 MW
SDG&E	19 MW (26)	1 MW (1)	2 MW (2)	22 MW
Procurement Totals	110 MW	90 MW	50 MW	250 MW

Note that the allotments in the rose colored cells are fixed by the interaction of three elements: the hard caps, the Act's mandated procurement totals by resource, and the total allocation by IOU based on proportion of peak load. The green shaded cells are adjustable to the extent they do not change the Act's mandated procurement totals by resource or the IOU's total allotment.

The District recognizes that it has not provided the associated estimated blend cost range or net expenditure estimates by year that the study provides for most of its options, but it appears based on total amounts would not vary too greatly from other estimates associated with Options 1, or others.

The District requests that Option 7 be given serious consideration before the CPUC entertains any option that would require significant delays.

Technical Issues: State of the biomass Industry (Section 5.1)

CPUC Asks: Whether the general characterization of the current state of the small-scale bioenergy market in this study is accurate?

The report implies that the small-scale forest bioenergy sector is currently in the early phases of project development. We concur with this finding. The primary issue holding up private financial

sector investment in forest bioenergy projects is the risk associated with power sales opportunities. The District supports the timely implementation of this program so that the business climate will improve and these facilities can become an effective part of fire reduction and energy production in California.

ReMat Program Challenges (Section 5.2)

While staff did not specifically ask any questions pertaining to the section of the report on ReMat program challenges, the District would like to emphasize that the study only reaffirms the fact that the definition of strategic location will overly restrict the program by mentioning that some projects have incurred interconnection costs far beyond $300,000.00. The District would like to point out that the study, however, fails to distinguish between distribution level costs and transmission level upgrade costs. Only transmission upgrade costs are at issue. The term "network upgrades" as used in the PPA, and the definition of Strategic location, are only referring to transmission upgrade costs.3 The examples of costs described in the study should be further clarified so that those costs are understood to be either distribution or transmission level costs. That way a realistic assessment of costs, and who pays them (some interconnection costs are paid by the developer, some by the IOU/ratepayer), can be made.

The District would also like to go on the record as supporting international developer experience when determining eligibility for the program, but agrees with BAC comments that such experience should not be the only basis for determining adequate experience for participation in the program.

Finally, the District would note that it expects in future workshops or comment periods it will have the opportunity to comment and suggest further refinement to the ReMat program so that it will work within the context of SB 1122. A higher opening price, changes to incremental price increase amounts or having price increments occur more often within a year are all possible solutions. The District continues to emphasize the need to reduce the requirement for five projects to be within the queue to a lower amount, perhaps two or three, as there are so few developers of the technology at this time. Seller concentration and price cap controls are still possible solutions for problems associated with reducing parties in the queue. The District refers staff to its filing on the PPA for more discussion on this issue, and looks forward to providing even further refinement of these points at the proper point with this proceeding.

Sustainable forestry definition

The California 2012 Bioenergy Action Plan identifies CALFIRE and the Natural Resources Agency as lead agencies in defining and ensuring sustainable forest biomass utilization for energy. As part of this work, the agencies are to develop sustainability standards for the sourcing of forest biomass feedstock by the end of the year. These agencies are well aware of the potential for sustainability concerns at the local level and are carefully considering numerous sustainability criteria that would preclude lands deemed sensitive to biomass harvesting. Sustainable forest management will generally involve biomass sourcing from two to four feedstock sources. These include biomass supplies derived from logging slash and from forest thinnings.

Estimates provided by the California Department of Forestry and Fire Protection to Black & Veatch reflect initial screening to exclude administrative, economic, regulatory and physiological limitations.

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3 SOUTHERN CALIFORNIA EDISON COMPANY'S (U 338-E), PACIFIC GAS AND ELECTRIC COMPANY'S (U 39-E), AND SAN DIEGO GAS & ELECTRIC COMPANY'S (U 902-E) RESPONSE TO CLEAN COALITION AND CALSEIA PETITION FOR MODIFICATION OF D.12-05-035 dated December 12, 2012.

While SB 1122 references Fire Threat Treatment Areas, biomass availability from high priority Fire Threat Treatment Areas represents a portion of what would be available from sustainable forest management. The question of sustainability of supply in the context of the 50MW of power from forest biomass has been raised and can be programmatically assessed in terms of annual use from sustainable forestry practices in light of total supply. CALFIRE and The California Biomass Collaborative have estimated that technical supply availability from logging slash is 4.25 million BDT/yr. and from forest thinning it is 4.1 million BDT/yr. (Assessment of Biomass Resources in California, 2007). Using an estimate of 8,500 BDT/MW, the 50 MW of generation capacity represented by the allocation in SB 1122 would utilize approximately 6% of the total technically available biomass supply. This rate of utilization would be sustainable and can be argued to be inadequate to deal with the treatment needs.

The question of whether harvesting operations will be conducted in a fashion which sustains ecosystems has been factored into the estimates of technically available biomass supply through modeling intended to reflect regulatory protections provided by the California Forest Practice Act and rules (FPRs) and policies applicable to the management of federal lands. Both the FPRs and federal regulations and policies provide for the protection of water quality, wildlife habitat, plants, animals and a number of other important resource values with the objective of maintenance, enhancement and sustainability of managed landscapes. Biomass sourced from harvesting operations on private lands subject to permitting under the Forest Practice Act and FPRS or from public lands subject to federal statutes, regulations and policy will be sustainable. Verification of source of biomass supply from these sources is also easily tied to harvesting permit documents and/or contracts.

It is recognized that there are concerns regarding the sustainability of individual biomass plants and how siting and size of the facility will drive the scale and intensity of biomass removals in the vicinity of the facility. While these small facilities are not likely to lead to impacts associated with increased scale and intensity, analytical tools for evaluating potential impacts have not been developed previously. Consistent with the Bioenergy Action Plan tasks, CALFIRE is developing an analytical tool for modeling sustainable forest treatment scenarios which can be applied within individual facilities feedstock supply circles. The model will take into account numerous treatment prescriptions that will address both the scale and intensity of biomass harvesting. This tool should support project planners to appropriately size facilities to balance biomass supplies and sustainability concerns. Furthermore, to improve the economics of facilities the feedstock transportation costs need to be limited by locating these facilities in close proximity to the feedstock source.

Incentives and benefits to the rate payer

One of the “Key Findings” in the draft Black & Veatch report correctly notes that the cost of meeting the statutory targets in SB 1122 will likely be considerably higher for bioenergy projects. The report also states that the price reflects delivered cost to the utility, but does not reflect the full range of potential values provided by small scale bioenergy. We concur with the report’s conclusion that incentives should be developed to help offset the higher costs of distributed small bioenergy projects. We also believe that it would be good public policy to link these incentives with the added benefits that small-scale bioenergy provides to ratepayers and the general public.

We encourage the CPUC to place a high priority on soliciting contract proposals to quantify the social and economic benefits of bioenergy as described in Action Item 2.1 of the California Bioenergy Action Plan. The CPUC may wish to coordinate this work with the California Energy Commission who is also tasked with related work in Action Item 2.1. The findings from this work should be used to develop incentives for bioenergy projects that link higher costs with the additional benefits provided.

One benefit to the ratepayers and the general public from forest bioenergy is the direct Reduction in fire risk. Bioenergy that is produced as a byproduct of forest restoration helps the public by reducing the costs of managing wildfires. Reducing fire risk also helps the 70% of Californians who buy their power from the three largest investor owned utilities (IOUs). Since 2004, the three IOUs have requested roughly $75 million in rate increases based on wildfire costs and $110 million in costs to remove bark beetle infested forest lands to prevent wildfire (Public Utilities Commission Catastrophic Event Memorandum Account cases 2005 Cal. PUC Lexis 262; 2006 Cal. PUC Lexis 411; 2006 Cal. PUC Lexis 408; 2008 Cal. PUC Lexis 65; 2010 Cal. PUC Lexis 413; 2010 Cal. PUC Lexis 182; and 2011 Cal. PUC Lexis 406.). Moreover, the IOUs sought an additional $400 million from ratepayers to address insurance and other costs associated with wildfire in 2012. The increases in insurance rates were directly related to the increased risk of wild fire (source: records for Public Utilities Commission proceeding 09-08-020 - see Opening Joint Amended Application, p.3).

There are many other benefits from forest-based bioenergy. The primary public benefits come from the ancillary values of restoring forest health. Additional benefits occur from the social and economic contributions to rural forest communities and the production of renewable energy that offsets the uses of fossil fuels. Some examples of important benefits are:

- Many forests in California are at risk to insect outbreaks, disease agents, drought and changing climate because of their over-stocked conditions. Removing forest biomass for energy can be done in ways that promote healthier forests while protecting soil and water resources. Healthy forests provide an array of other benefits.

- Healthy forests in the Sierra Nevada help protect the water supply for 25 million Californians. Sediment deposited by runoff after severe fires can require costly clean-up operations for managers of public drinking water facilities as well as managers of hydroelectric and water storage facilities. Carefully managed forests can ameliorate large sediment movements by reducing fire severity and protecting soils.

- Forest bioenergy facilities have been consistently shown to provide dramatic improvements over the air emissions produced by pile burning and wildfires.

- Many of the benefits to public health come from added fire protection and reduced pollution to air and water. An assessment of a proposed bioenergy facility in Placer County found that the project posed no significant risks to public health and would offer considerable improvements over the traditional method of burning forest waste in piles.

- Healthy forests continuously increase carbon storage in the large trees while making stands more resistant to severe fire.

- Bioenergy production provides two kinds of greenhouse-gas benefits. Like all renewable energy, bioenergy avoids the use of fossil fuels which add anthropogenic carbon to the atmosphere. In addition, biomass energy produces less greenhouse-gas emissions than the various alternative disposal fates for forest waste such as pile burning.

- Biomass harvest that is done to reduce the likelihood of severe fire will generally be regarded as beneficial for wildlife as long as abundant key structural components (snags, down logs, hardwoods, etc.) are retained.

- Healthy forests can help avoid serious disruptions to forest recreation.

- Biomass power facilities mean jobs with comparatively good wages that are needed in some disadvantaged rural forest communities.

- Forest bioenergy facilities provide a reliable source of renewable energy that helps diversify California's renewable energy portfolio while offering firm reliable power when other sources such as wind and solar may be off line.

The District can provide scientific data on each bullet point listed above. The District looks forward to incorporating further levels of more specific information related to rate payer benefit at the proper time within this proceeding, which we understand will be discussed in detail at workshop planned for the fourth quarter of this year that will evaluate and quantify the societal benefits of renewable DG technologies.

Thank you very much for your time and consideration on the matter described within this letter.

DATED: April 24, 2013

Respectfully submitted,

/s/ Christiana Darlington

CHRISTIANA DARLINGTON
General Counsel for
PLACER COUNTY AIR POLLUTION CONTROL DISTRICT
OFFICE OF PLACER COUNTY COUNSEL
175 Fulweiler Avenue
Auburn, CA 95603
cdarling@placer.ca.gov

Appendix A

Counties with Forest Bioenergy projects in the planning stages (13 projects in 11 counties):
Mendocino
Shasta
Lassen
Yuba
Nevada
Fresno
Placer
Mono
Plumas
Calaveras
Madera

Project planning stages by county:

Seeking feasibility study funding: Mendocino, Shasta, Lassen, Yuba, Nevada, Fresno
Feasibility phase: Mendocino, Placer, Mono
Seeking design funding: Plumas, Calaveras
Design phase: Madera
CEQA/NEPA review: Placer