



June 19, 2013

California Energy Commission
Dockets Office, MS-4
Re: Docket No. 13-IEP-1M
1516 Ninth St
Sacramento CA 95814-5512
via email: dockets@energy.ca.gov
Garry O'Neill Mariscal, goneill@energy.ca.gov

SUBJECT: *Comments to "Status of Bioenergy Development in California"*
Docket # 13-IEP-1M, 2013 Integrated Energy Policy Report (2013 IEPR)

Dear Mr. O'Neill and the Dockets Office:

We are pleased to have the opportunity to submit stakeholder comments to the California Energy Commission (CEC) regarding the status of bioenergy development in our state to assist the CEC's efforts in completing the 2013 Progress-to-Plan for the Bioenergy Action Plan. We recognize this work is in compliance with Executive Order S-06-06 to inform the Governor and the State Legislature of bioenergy development in context of the Integrated Energy Policy Report (IEPR). We appreciate the excellent Bioenergy Development workshops hosted by CEC staff, first on May 31, 2013 regarding biomethane procurement challenges followed by the June 3, 2013 bioenergy status workshop. These comments address only the second forum.

The workshop began with an introduction placing the Status of Bioenergy Development in context of the 2012 Bioenergy Action Plan and the broader 2013 IEPR assessment. The 2012 Plan identified six key objectives; I feel the workshop successfully developed an outline of progress to date related to each topic. The deeply experienced Panel provided an opportunity to exchange diverse concepts and to identify both opportunities for collaboration and areas where agencies continue to work at cross-purposes.

Session 1: Biomass to Biofuels

Interagency Purview and Biomass Access: Of particular interest were issues surrounding development of front-end biomass processing standards, an area of interagency conflict causing industry and community confusion. Given the potential for biomass to biofuels and bio-sourced chemicals in California and the overwhelming demand for transport fuels, lack of consistent, reliable, and long-term contractual access to biomass acts as a significant roadblock to project development and particularly to attracting the viable investments needed for in-state projects. Interagency directives to support establishment of at least 10-year duration biomass supply contracts are sorely needed; the US Forest Service (USFS) has taken the lead in this with a new contracting mechanism that might provide the template.

Biomass Conversion - AB 341, the AB 32 Scoping Plan Update and the LCFS: The disparity in terminology between agencies regarding what is a legally deemed to be a "waste" and what is a "residual" is being brought into sharper focus. CalRecycle and the Air Resources Board (ARB) are collaborating on an update to the AB 32 Scoping Plan and developing an outline for the AB 341 implementation of mandatory commercial recycling. By law (PRC §40180), any waste that

is collected, cleaned, treated, and reconstituted to the specifications of an end-user or a remanufacturing facility has been "recycled," yet CalRecycle's policies adhere to a far more restrictive interpretation. Clearly, our diverse waste-sourced fuels production pathways constitute legal examples of recycling. The code section is technology neutral, yet CalRecycle persists in rather arbitrary preference for one form of "reconstituting" over another. Shifting this paradigm to acknowledge low carbon fuel production from waste feedstock as a legal form of "recycling" would significantly improve California's biomass to energy status.

The success of the still-unfolding Low Carbon Fuel Standard in driving advanced fuel research, development, commercialization, and transport use was clearly apparent from the range of Session 1 discussions and subsequent question and answer dialogue. As a member of the LCFS Sustainability Working Group under ARB Mike Waugh's direction, I was encouraged to see that the years of collaborative "low carbon" fuel program development are indeed having a profound and positive impact. I strongly encourage the CEC to broaden engagement in the LCFS program wherever possible with staff expertise and agency funding support.

Session 2: Biomass to Power

Technology Access: A decade ago, the number of commercially available options for clean community scale conversion of biomass to power was insufficient to facilitate competitive selection for project development. That is not now the case, although finding reliable information remains a problem. CEC's mandate in the Bioenergy Action Plan is to continually expand on applied research efforts to develop a broad and on-going base of data on existing biomass conversion companies, technologies, and projects, and to aggressively seek to expand the public/private dialogue among the players in this emerging global sector.

From such a data management system, the CEC could increase reach and accuracy when supporting technology demonstration and deployment in that each contact list could start from an existing open dialogue with specific companies representing specific technologic approaches. One natural outcome of better outreach would be an increase in technology transfer and market facilitation, as the tools are matched up more effectively with the needs.

Seldom, Power Alone: Perhaps more true for biomass than any other renewable resource, it is imperative to always seek not just the costs and benefits of electricity generation, but to include assessment of the potential for combined heat and power (CHP), for biomass-sourced heat-driven cooling (CCHP), for production of valuable co-products such as biochar, and in general for an integrated multi-technology, multi-product approach. This applies to all scales, yet is more crucial for smaller projects where the same amount of labor and cost produce significantly lower resulting values.

Environmental Impacts, Societal Expectations and Permitting Approvals: Few industrial pursuits find the diversity and polarization of opinion that has literally paralyzed the bioenergy industry in California for decades. Any one project proponent will find the overall cost of permit application and development challenging enough without the constant threat of litigation from those with opposing views on resource utilization. One approach at the USFS level has shown the best results is that of Community Forest Landscape Restoration (CFRL) programs, and three CFRLs are funded and active in our state. Each should be considered a model for consensus based stewardship and all should be given as much support as available on an on-going basis to survive the first growing pains of such broad collective land management. From these programs, we are finding a path to sustainable forest-sourced biomass utilization that approaches the challenges first, and draws up the project plans second. Very importantly, an underlying theme has emerged that requires export of biomass to focus on the "waste", the

accepted amount of excess that would otherwise be gathered and disposed. The anthem might be, "No Forest Mining" where waste use is promoted over virgin materials extraction.

Coordinating with Utilities: A discussion following the presentation by PG&E's representative broached the need for long-term coordination in project planning. Expensive infrastructure development efforts from numerous energy developers should be wrapped into the utility's own maintenance and retrofit schedule. This needs to occur years in advance.

Session 3: Bioenergy Benefits and Environmental Considerations

The legislative direction of SB 1122 sets the tone for this session, especially given recent struggles and eventual acceptance of the 2 megawatt to power Cabin Creek project between Truckee and Lake Tahoe. An almost religious difference of opinions exists between those that would *preserve* resources, and those that seek to *recover* resources. The dogged progress of a few is paled by the scale of the need, yet that very doggedness is in its way encouraging, if also frustrating. We have the technologies to accomplish clean, efficient waste and biomass conversion, but we lack the political will to make this a reality.

Conclusions

- Focus attention in the 2013 Bioenergy Action Plan on conversion of biomass waste and residuals, not on virgin resources.
- Rely on PRC§ 40180 (definition of recycling) and Live-Cycle Assessment (LCA) methodologies associated with defining "pathways". Consider biomass utilization as a natural form of recycling with all the support and social cache that goes along with the term.
- Determine all recycling pathway elements that currently lack data critical to full LCA, and institute programs to ensure adequate, reliable data are generated and reported.
- Remove arbitrary characterizations of recycling pathways, depending solely on methodical application of Best Available Practices for social, environmental, and economic methodologies analyses.
- Initiate changes in statute, regulation, and policy to coincide with above scientifically based approach to recycling and resource recovery.
- Clearly state in the Plan that Waste Management Sector policies regarding Biomass Recycling and Resource Recovery must be brought into alignment with encoded Low Carbon Fuel Standard practices of pathway identification, vetting and certification.

Please contact me at (530) 613-1712 or mtheroux@jdmt.net if you have any questions.

Sincerely,

JDMT, Inc



Michael Theroux
Vice President

cc: Dockets Office, docket@energy.ca.gov
Garry O'Neill Mariscal, goneill@energy.ca.gov