CRIMSON
RENEWABLE ENERGY, LP

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February 19, 2014

California Energy Commission
1516 Ninth Street
Sacramento, CA 95814-5512

Re: Docket No. 14-ALT-01 - 2015-2016 Investment Plan Update for the Alternative and Renewable Fuel and Vehicle Technology Program.

Dear Commissioners, Staff and Members of the ARFVTP Advisory Committee,

As a major in-state producer of biodiesel (we utilize used cooking oil and distiller's corn oil to produce an ultra-low carbon alternative diesel fuel with an average quarterly carbon intensity for 2013 and 2014 of 10 to 16.5) we have followed the 2015-2016 Investment Plan Update for the Alternative and Renewable Fuel and Vehicle Technology Program (ARFVTP) as well as previous ARFVTP Investments Plans since the enactment of AB118. First, the Crimson Renewable Energy team would like to thank members of the California Energy Commission (CEC) staff and ARFVTP Advisory Committee members for their hard work on the 2015-2016 Investment Plan. Similarly we would like to thank and applaud CEC staff and commissioners for their ongoing willingness to engage industry stakeholders regarding the ARFVTP and associated investment plans.

Economic Impact

Before getting into our comments on the 2015-2016 Investment Plan Update for ARFVTP, I would like to provide some additional information about our biodiesel production facility in Bakersfield, California. Specifically, I hope this information will provide the CEC staff and ARFVTP Advisory Committee members a better understanding of the economic impact of a biomass-based diesel substitute production facility such as ours. .

Our biodiesel production facility in Bakersfield currently has 25 full time employees, and an additional 6 long term, full-time contractors. The plant was built in order to serve the market for very low carbon fuels created by the LCFS. 100% of our plant's biodiesel output was sold within California, typically delivered to one of the major bulk fuel terminals. Based on our spending in 2014, our annual direct economic contribution was $40 million, of which approximately 87% was spent within California and a significant portion of this was spent in Bakersfield and other parts of the Central Valley. The average annual 2014 compensation per person employed at the plant not including the senior management positions was approximately $64,000. Furthermore, several of our plant employees came to us without the full range of experience that is required and we have invested significantly in their training.

We are also currently in the midst of an expansion project that began in early 2014 and will be completed in summer 2015 entailing a total investment of nearly $12 million. The first phase of this project was completed in May 2014 enabling us to increase our annualized production rate from approximately 10 mil gal/yr to 14 mil gal/yr. Upon completion, our plant capacity will grow to 22 mil gal/yr. At that point, the plant will make a direct economic contribution of $70 - $90 million per year (depending on raw material prices) with 89-93% of this being spent within California, and 36-38 full time employees and long-term contractors.

Thus we believe that our biodiesel production facility is making a strong and growing economic and job creation contribution locally (which is also considered an economically disadvantaged area) and within California. The economic return on investment from the CEC grant of $5 mil to help fund our 2014-2015 expansion would seem to be a homerun.

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Emissions / Health Benefits

As we and other stakeholders have pointed out previously to CEC staff, biodiesel is a solution to very specific problems associated with petroleum diesel's emissions profile – namely the well-known toxics, particulates, and carcinogens that are currently causing unacceptable levels of respiratory illness in California, especially in the Central Valley, the areas surrounding the Port of Long Beach and Port of Los Angeles, and especially among California's children and elderly and its economically disadvantaged communities (such communities tend to be concentrated near industrial areas where truck traffic is disproportionately higher than in other communities). Indeed, "Biodiesel's reduction in PM emissions and associated risks have been acknowledged by Air Resources Board staff. Besides PM reduction, biodiesel also provides significant reductions in polycyclic aromatic hydrocarbons (PAHs), nitrated PAHs, and the ozone potential of speciated hydrocarbons. According to the Union of Concerned Scientists and the American Lung Association (http://www.ucusa.org/clean_vehicles/trucks_and_buses/page.cfm/pageID=1429), PM and other hydrocarbon emissions within California are responsible for an estimated 3,000 premature deaths , 2,700 cases of bronchitis, and 4,400 hospital admissions, ultimately creating additional healthcare costs totaling $21+billion.

Biodiesel also provides very large reductions in carbon/GHG emissions (85-95% reduction in carbon/GHG for biodiesel made from used cooking oil and distiller's corn oil from ethanol plants) that are critical to meeting LCFS carbon reduction requirements. According to ARB, in Q1/2014 biodiesel provided 18% of all LCFS credits generated. Indeed the incremental increase in production from 10 mil gal per year to 22 mil gal per year at our plant will generate carbon savings of 143,000 to 150,000 metric tons per year, which is equivalent to the carbon savings from taking 28,200 cars off California roads. Based on this metric, our expansion project made possible with ARFVTP funding would also appear to be a home run. I am not sure how to quantify the concrete health benefits (reduction in respiratory illness and associated health care costs) of the reductions in PM and other hydrocarbon emissions as a result of 12 mil gal per year of biodiesel as opposed to petroleum diesel but this is another metric that would add to the hugely positive return on investment for the ARFVTP funding of our expansion project.

Comments on the 2015-2016 Investment Plan Update for the ARFVTP

First and foremost, we believe that the 2015-2016 Investment Plan Update does not contain appropriately robust and objective metrics for evaluating ARFTVP budget allocations. This fact has been similarly noted by several ARFVTP Advisory Committee members. We are aware that in July 2014, three committee members and several stakeholders recommended that the CEC create a special advisory panel to develop a metrics methodology for use by CEC Commissioners and staff and AB 118 Advisory Committee when determining future ARFVTP budget allocations to meet statutory requirements. We strongly support this and urge staff to follow up to establish this panel as soon as possible.

As noted above solid metrics such as the direct economic benefits and carbon reductions attributable to an ARFTVP project can be measured. The relative performance in terms of such metrics for projects previously funded by the ARFVTP can and should be applied to investment allocations across the various sectors of alternative fuel technologies. In the absence of utilizing solid and measureable metrics and those to the actual performance of projects previously funded by the ARFTVP, the CEC risks developing a portfolio of ARFTVP projects that simply won't deliver the intended benefits per statute.

Accordingly, we believe that the allocation in the 2015-2016 Investment Plan Update for the diesel substitutes category is underfunded relative to the benefits offered by diesel substitutes. This line of thinking is based on the hard numbers for economic, hydrocarbon emission reduction, and carbon reductions that result from the incremental annual biodiesel production increase achieved via the ARFTVP funded expansion of our biodiesel plant. On an aggregate level, this category (and biodiesel in particular) has been providing significantly more than 10% of the program benefits. We know, for example that in 2014 biodiesel will provide about 16% of all LCFS credits generated, according to ARB figures – http://www.arb.ca.gov/fuels/lcfs/media_request_070714.xls. The California Biodiesel Alliance has conservatively calculated that for every $1000 invested from the ARFVTP, the biodiesel industry can deliver close to 1350 gallons of ultra-low carbon biodiesel production per year, which in turn would generate a

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recurring annual carbon savings of 14+ metric tons/year. Furthermore, based on current market economics this $1000 investment would generate recurring economic contributions of $5,400 per year. In the case of a project like our biodiesel plant expansion that increases production from 10 mil gal/yr to 22 mil gal/yr, the recurring annual economic contribution from $1000 of ARFVTP funding is $8000/year (using current market pricing) and the recurring annual carbon savings would be 27.5 to 30 metric tons/year.

Lastly, while we are in general supportive of the development and distribution of renewable diesel (RD) in California, there may be challenges to the adoption of RD at the levels stated in the 2015-2016 Investment Plan Update. There was an incorrect statement in the 2015-2016 Investment Plan Update concerning an ASTM specification for RD. Unlike biodiesel, which has its own specification and definition, RD has no unified definition or specification. The ASTM D975 specification for diesel fuel was written before it was ever contemplated that it would be manufactured from something other than petroleum, and thus is lacking several specifications that would otherwise be applied to a fuel made from organic substances. This is why the biodiesel specification, D6751 (which is in its 15th iteration), has been so much more completely vetted as a biomass-based diesel substitute. Additionally, RD may not be 100% fungible as it is described in the 2015-2016 Investment Plan Update. Renewable bio-jet fuel, for example, can only be blended up to a maximum of 50% in jet fuel, not 100%. Also, the Truck and Engine Manufacturing Association has recently stated that they are considering blending limitations due to the low aromatics content of RD.

We greatly appreciate this opportunity to comment. Please feel free to contact me should you have any questions.

Sincerely yours,

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