

Written Comments Provided On:

AB 118 – Revised Draft Regulation Language including
Sustainability Goals

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Submitted By:

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On behalf of Green Earth Fuels, LLC, I wish to thank you for the opportunity to provide comments on California's AB 118 Revised Draft Regulation Language including our comments on Sustainability.

Green Earth Fuels is a Leader in Biodiesel Energy:

Green Earth Fuels is a global, vertically integrated biodiesel energy Company providing the essential product quality, scalability, and streamlined logistics to reliably supply leading energy companies with renewable, environmentally clean, and high-value biodiesel fuel and byproducts. Independently located within existing petrochemical infrastructures in key U.S. coastal locations, Green Earth Fuels benefits from dedicated worldwide access to a nationwide production network alongside well-situated distribution channels. Our biodiesel is consistently high in product quality, and meets the stringent specifications of the American Society of Testing and Materials (ASTM).

California Is A Leader in Biofuels Development:

Green Earth Fuels recognizes the economic and environmental importance of a thriving alternative and renewable fuels industry in California given the significant market potential and its expected role in meeting the State's energy and sustainability goals. As a proven leader in the advancement of regulatory standards, California is vital to the worldwide development of the alternative and renewable fuels industry. Currently, Green Earth Fuels is engaged in substantial development efforts within California and we expect to play a valuable role in achieving California's renewable energy targets. As such, Green Earth Fuels applauds the efforts of the California Energy Commission for its work on AB 118 and supports efforts to further the alternative and renewable fuels industry in California as a whole. We understand the CEC still has a long road ahead with respect to AB 118, and agree that the benefits of this Program will help assure that California remains a leader in setting regulatory standards for the world to model and place California-based businesses in a position to meet the landmark environmental goals of the State. Green Earth Fuels looks forward to working with the CEC as

well as the AB 118 Advisory Committee and Sustainability Working Group on the continued development of Program regulations and future implementation of its investment plan.

AB 118 Regulations Will Shape the Marketplace:

It is essential that the CEC develop regulations that are simple and transparent in order to insure a smooth and successful administration of the Program that can have impact worldwide. We favor a strong funding policy that supports the advancement of both existing and future business efforts in California to further the State's pioneering regulatory and air quality goals. Furthermore, Green Earth Fuels strongly recommends that lifecycle analysis, on a project-by-project basis, is used when considering the worth of a biofuels project. Broad-based exclusions of projects by fuel type, process, or technology would damn otherwise strong and environmentally sound programs for merely political goals or based on perception, and not fact. It is important, as well, that AB 118 funding remain open for a diversity of fuels and fuel sources to promote innovation and stability in the marketplace. Our strong support for biodiesel does not temper our support for a diverse biofuels development strategy that stabilizes existing projects while nurturing promising technologies. In this manner, California can play an important role in assuring a domestic, clean and stable energy future for our nation.

AB 118 Programs Should Promote Biodiesel:

Within the framework of a successful alternative and renewable fuels strategy, a thriving California based biodiesel industry would have significant economic and environmental impacts, would be instrumental in helping California achieve its own goals, and would support U.S. energy security.

Biodiesel offers California a simple and effective solution to many of its environmental and energy policy issues. California is home to a population of 36.6 million (12.2% of the US) and the largest transportation fuels market in the U.S., consuming over 11.6% of the nation's transportation fuel (*Energy Information Administration – CA State Energy Profile Data*). In California, demand for petroleum based transportation fuels exceeds 20 billion gallons/year. Diesel demand accounts for roughly 20% of this amount, or 4 billion gallons/year. Therefore,

with a statewide adoption of B5 (5% biodiesel blended with 95% petroleum diesel), the ASTM D 975 petroleum diesel equivalent, California could support a market of more than 200 million gallons/year today. According to figures from the National Biodiesel Board, California has an existing biodiesel production capacity of 34.85 million gallons/year (*September 2008 figures*). This indicates there is a large and essentially untapped market for biodiesel with considerable economic growth potential. As an alternative transportation fuel, biodiesel is a clean and renewable replacement of petroleum based diesel that requires minimal changes to existing infrastructure. For these reasons, the economic significance of biodiesel to California cannot be overstated.

Yet another advantage of biodiesel is its feedstock flexibility. It can be made from existing California waste sources like recycled oils (yellow & brown grease), animal fats, and other biomass based waste streams from existing and developing technologies as well as from dedicated energy crops that are well suited for development in California such as Camelina, Jatropha, and Algae. While there are many exciting opportunities for California based feedstock development, a successful biodiesel market will also need to rely on the large scale utilization of more traditional oil crops in order to meet demand and assure the availability of a competitively priced product. Therefore, it is of the utmost importance that AB 118 does not discriminate against individual projects through the implementation of any broad-based category restrictions. Every project needs to be evaluated on individual merit without an initial restriction or bias against fuel type, production method, or input. A successful Program needs to identify and account for all responsible projects in order to insure equitable administration and create an economically sustainable industry.

Biodiesel also provides significant environmental benefits. In California, 42% of the GHG emissions are from transportation fuels and petroleum based diesel is the leading cause of emissions related respiratory illnesses. Biodiesel provides a simple and highly effective solution to these problems. Biodiesel is an environmentally safe fuel, and is the most viable transportation fuel when measuring its carbon footprint, life cycle and energy balance. The USDA/DOE lifecycle study shows a 78% reduction in lifecycle CO₂ for B100. The use of 200

million gallons of biodiesel in California would reduce current life cycle greenhouse gas emissions by 3.2 billion pounds, the equivalent of removing 280,000 passenger vehicles from our roads.

Biodiesel's emissions significantly outperform petroleum based diesel. Research conducted in the U.S. shows biodiesel emissions have decreased levels of all target polycyclic aromatic hydrocarbons (PAH) and nitrited PAH compounds, as compared to petroleum diesel exhaust. These compounds have been identified as potential cancer causing compounds.

Biodiesel is the only alternative fuel to voluntarily perform EPA Tier I and Tier II testing to quantify emission characteristics and health effects. That study found that B20 (20% biodiesel blended with 80% petroleum diesel) provided significant reductions in the total hydrocarbons; carbon monoxide; and total particulate matter. Typically, emissions of nitrogen oxides are either slightly reduced or slightly increased depending on the duty cycle of the engine and testing methods used. Research also documents the fact that the ozone forming potential of the hydrocarbon emissions of pure biodiesel is nearly 50% less than that of petroleum fuel. Pure biodiesel typically does not contain sulfur and therefore reduces sulfur dioxide exhaust from diesel engines to virtually zero.

Together, biodiesel and California are critical to any responsible energy strategy that seeks to reduce dependence on foreign petroleum. Through the increased production and use of renewable transportation fuels such as biodiesel, California could have a significant role in the reduction of the United State's dependency on foreign oil. California serves as the major petroleum import hub on the West Coast supplying much of the Western U.S. via Nevada, Arizona, and Oregon. California is home to 21 petroleum refineries that account for roughly 12% of U.S. refining capacity, exceeding 2 billion barrels/day, importing 36% of its refining capacity from foreign sources.

The goal of California AB 1007 (State Alternative Fuels Plan) is to reduce petroleum consumption and GHG emissions through the increased use and in-state production of biofuels. California can readily produce significant volumes of biodiesel from waste sources such as recycled cooking oils (yellow & brown grease), animal fats, and other biomass-based waste

sources via traditional and developing technologies. Furthermore, the opportunity for agricultural development of dedicated energy crops such as Camelina, Jatropha, and Algae is very promising. These next generation energy crops also have numerous sustainable benefits – high oil yields, can be grown on marginal lands, require minimal inputs such as water and fertilizer, and do not compete with existing agricultural systems. With the use of B5 (5% biodiesel blended with 95% petroleum diesel), the ASTM D 975 petroleum diesel equivalent, California could support a market of more than 200 million gallons/year and displace more than 8 million barrels of foreign oil. In addition, biodiesel is an extremely efficient fuel that creates 3.5 units of energy for every unit of fuel that is required to produce the fuel. For these reasons, the use and production of biodiesel in California can greatly contribute to domestic energy security.

Thank you for this opportunity to comment. Please contact me if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "E. Knight". The signature is fluid and cursive, with a large initial "E" and a stylized "Knight".

Eric Knight

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