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December 12, 2013

California Environmental Protection Agency, Air Resources Board

**Re: Comments to the Proposed Regulation on the Commercialization of New Alternative Diesel Fuels released October 23, 2013**

To Whom It May Concern:

Oberon Fuels is supportive of the proposed CARB Alternative Diesel Fuel Regulation regarding the Commercialization of New Alternative Diesel Fuels. As a San Diego-based, innovative company, we are a case study for the importance of this regulation and its importance in streamlining the certification procedure.

Oberon Fuels has developed an innovative process to bring dimethyl ether (DME) to the market. DME is a clean-burning, non-toxic, potentially renewable fuel. Its high cetane value and quiet combustion, as well as its inexpensive propane-like fueling system, make it an excellent, inexpensive diesel alternative that will meet strict emissions standards and assist in lowering greenhouse gases. Ideal uses for DME in North America are in the transportation, agriculture, and construction industries.

DME has been used for decades as an energy source in China, Japan, Korea, Egypt, and Brazil, and it can be produced domestically from a variety of feedstocks, including biogas (animal and food waste, landfill gas, and waste water treatment gas) and natural gas. The Oberon process is even more efficient when the carbon dioxide from biogas is incorporated into the process. This ability to convert a variety of methane and carbon dioxide sources to DME, enables the sequestration of two greenhouse gases to produce a cleaner burning fuel.

Oberon Fuels' first facility in Brawley, California is currently producing fuel-grade DME that is being used in several trucking demonstrations. Oberon is also currently navigating the CARB Tier 1 Multimedia review for fuel certification. Additionally, ASTM recently passed a new standard specification for "Dimethyl Ether for Fuel Purposes." Oberon Fuels has also submitted biogas to DME pathways to the EPA for consideration under the Renewable Fuel Standard to receive RIN credits. The production and use of DME has surpassed the research phase and is now solidly in the development phase, soon to be in commercialization production (2015).

On June 6, 2013, Volvo Trucks North America announced that it will be commercializing DME heavy-duty trucks in 2015. Two weeks later, Mack Trucks also announced its plans for commercializing DME-powered trucks in 2015. In addition, Volvo, Safeway, and Oberon were awarded a grant for Safeway to test drive to Volvo trucks running on Oberon DME, driving typical routes in 2014.



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## **Greenhouse Gas (GHG) Reduction; AB32 goals**

DME will assist in GHG reduction, as it will contribute to the displacement of the 2.6 billion gallons of diesel currently used in California. Pure DME contains no sulfur compounds, which makes it a clean burning fuel that generates no SOx or particulate matter in the exhaust gas. Additionally, because DME can be made from biogas, the production process sequesters both carbon dioxide and methane, which further reduces GHG emissions in California.

Volvo has tested DME engines in heavy-duty applications since 1999, first with a DME-powered bus. Current Volvo demonstrations of DME in Europe show a 95% reduction in CO<sub>2</sub> emissions for commercial operations. These results prove that production of DME will continue to assist with California's emission requirements codified in AB32.

## **Proposed Regulation Streamlines Fuel Certification Process**

The proposed regulation will allow companies to more effectively navigate the fuel certification process. This regulation proposes to outline the specific testing and emissions evaluations that CARB requires when certifying a fuel. By compiling the information, companies will only have to review one source of requirements to determine what they need to test for during the certification. Providing the specific criteria ahead of time will also streamline the process and allow for companies to be able to prepare themselves for the required multimedia evaluation. While we understand that many of the provisions of this regulation are already legally required, we believe that placing the framework in one regulation will increase understanding and allow innovative companies to more quickly bring safe and viable alternative fuels to market.

## **Local Benefits**

Streamlining the commercialization of DME will immediately assist with reduced emissions, better air quality, and more green jobs in California. Every time DME is used as a fuel, it will replace the use of diesel, therefore, immediately reducing the particulate matter, SOx, and NOx released from diesel combustion.

The DME plant in Brawley currently supports 10 full-time operators, not including the temporary jobs created by the construction of the plant. Oberon is currently building an additional plant in Brawley and has plans to have several more plants online by the beginning of 2015. Each plant will support 10 full-time operators. The number of corporate jobs will also grow as Oberon builds more plants to serve more markets.

Oberon strongly believes that the proposed CARB Alternative Diesel Fuel Regulation will allow us to more quickly bring a viable and clean fuel to market, while complying within all environmental regulations.

Oberon Fuels appreciates the opportunity to offer these comments and suggestions.



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Sincerely,

Brittany Applestein Syz

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Oberon Fuels, Inc.