Clean Fuels
ALLIANCE AMERICA

May 7, 2022

Climate Leadership and Community Protection Act (CLCPA)
Climate Action Council
Draft Scoping Plan Comments on Transportation and a Clean Fuel Standard

These comments are submitted on behalf of Clean Fuels Alliance America (Clean Fuels), formerly the National Biodiesel Board. Our name change reflects our embrace of all the products our members and the U.S. industry are producing, which include biodiesel, renewable diesel, sustainable aviation fuel, Bioheat ® fuel for thermal space heating and maritime and railroad fuels. Clean Fuels members play an important role in displacing petroleum, improving public health, and protecting the environment. Many members are members of environmental organizations and are supportive of state and local initiatives to achieve a sustainable energy future.

Clean Fuels is a member of the CleanFuelsNY coalition, and we urge the Climate Action Council to support a technology- and fuel-neutral Clean Fuel Standard, such as is proposed by A.862-B (Woerner)/S.2962-B (Parker), as you consider policy initiatives to help attain the state's carbon reduction and climate change goals.

Clean fuel standards have been very successful in California and Oregon

A Clean Fuel Standard, also known as a low carbon fuel standard (LCFS), is a technology-neutral, performance-based standard that requires fuel manufacturers and importers to reduce the lifecycle greenhouse gas (GHG) emissions associated with the fuels they make and sell. These requirements have been in place since 2011 in California and 2016 in Oregon and have reduced GHG emissions in those states by 104 million metric tons combined. It is one of the single most effective GHG reduction policies in either state, yielding not only carbon reductions, but also transforming the transportation fuel pool, increasing energy security, and reducing health-impactful air pollution.

Consumers have not experienced significant cost impacts at the pump

As we face an unprecedented health and budget crisis, a Clean Fuel Standard would allow New York to improve air quality and clean up the transportation sector at cost parity with conventional gasoline and diesel. Retail pump prices for gasoline and diesel compiled by the U.S. Energy Information Agency show California pump prices in 2019 were at or below 2011 prices, for both gasoline and diesel, after nearly 10 years of the LCFS program operating in California. In fact, biodiesel prices (reported for 20% biodiesel blend or B20) on the West Coast were on average 51 cents per gallon less than conventional diesel (as of January 2020).

A clean fuel standard is good for the economy, environment, and public health

Adopting a Clean Fuel Standard in New York will send strong market signals to producers of biodiesel and renewable diesel (collectively called "biomass-based diesel") that the state is open for the renewable liquid fuels business. Under California's LCFS, biomass-based diesel volumes grew from 14

Missouri Headquarters
605 Clark Ave.
PO Box 104898
Jefferson City, MO 65110
800.841.5849

Washington, D.C. Office
1331 Pennsylvania Ave. NW
Suite 505
Washington, DC 20004
888.246.3437

California Office
1415 L Street
Suite 460
Sacramento, CA 95814
916.760.8870

Massachusetts Office
36 Jonspin Road
Suite 235
Wilmington, MA 01887
978.267.3020

cleanfuels.org

million gallons in 2011 to over 1.22 billion gallons in 2021, an 87-fold increase. These sustainable diesel replacements currently comprise fully a third (33.3%) of the California diesel fuel pool. They have generated about 45% of the carbon reductions in the CA LCFS program for the past four years and 42% overall to date. Since its adoption of the LCFS, California has seen the development of nine biodiesel facilities and one renewable diesel production plant, supporting 4,400 full-time jobs and $156 million in wages. Overall, the CA LCFS has created 38,000 jobs and billions of dollars in investments directly benefitting the state. And the CA LCFS has been cited as directly contributing to recent announcements by several petroleum refiners to convert a number of traditional refineries to renewable diesel production.

To illustrate the importance of an aggressive climate strategy like the LCFS as an environmental and economic driver, the recent expansion of North America's largest producer of sustainable aviation fuel (SAF) at the World Energy facility in Paramount, California, is tied directly to the LCFS and will increase production of SAF by 700%, generate over $19 billion to the U.S. economy, and support more than 18,000 jobs between now and 2024.[1]

These economic benefits have been accompanied by substantial environmental and public health benefits. Unlike petroleum diesel, which adds large amounts of new carbon into the atmosphere, biomass-based diesel are made from waste and by-product fats and oils, thereby reducing GHG emissions by nearly 80% depending upon feedstock; 73% on-average. Further, biomass-based diesel can reduce particulate matter (PM) by nearly 86%, carbon monoxide by over 40%, and other noxious pollutants by significant levels. And since these are drop-in fuels, biomass-based diesel can produce environmental benefits immediately upon use.

Emissions Improvements of Biodiesel versus Low Sulfur (LS) and Ultra Low Sulfur (ULS) Heating Oil[2],[3],[4],[5],[6]

Average Change	PAH	PM	CO	NO_x	SO_2	CO_2
Percent	-90 to -95%	- 86%	Similar to -15%	Similar to -25%	-98% (LS) Similar (ULS)	-73%

Note: PAH-Polycyclic Aromatic Hydrocarbons; PM-Particulate Matter; CO-Carbon Monoxide; NOx-Nitrogen Oxides; SO_2-Sulfur Dioxide; CO_2-Carbon Dioxide

Moreover, disadvantaged and environmental justice communities are often located near or around high diesel-use activities, such as ports and railyards. Replacing petroleum diesel with biomass-based diesel substantially reduces diesel PM emissions, which in turn provides immediate public health benefits in the form of avoided cancers, deaths, hospitalizations, and asthma incidents (because diesel PM is a known air toxicant).

A Clean Fuel Standard is a critical tool in reducing air pollutants which contribute to significant public health issues, including asthma and other respiratory and cardiovascular diseases that are linked to

[1] See https://www.prnewswire.com/news-releases/world-energy-secures-permits-will-completely-convert-its-southern-calif-refinery-to-create-north-americas-largest-worlds-most-advanced-sustainable-aviation-fuel-hub-301531135.html.
[2] Macor, A., Pavanello, P., Performance and Emissions of Biodiesel in a Boiler for Residential Heating, *Energy*, vol. 34, 2009.C
[3] Krishna, C.R., Biodiesel Blends in Space Heating Equipment, Brookhaven National Laboratory, 2001.
[4] USDA/DOE 1998, Life Cycle Inventory of Biodiesel and Petroleum Diesel for Use in an Urban Bus.
[5] Lee, S. Win, He, I., Heritage, T., Young B., Laboratory Investigations on the Cold Temperature Combustion and Emissions Performance of Biofuels Blends, 2003.
[6] https://www.edf.org/sites/default/files/10071_EDF_BottomBarrel_Ch3.pdf at 5. Studies cited showed PM reduction proportional to biodiesel content (e.g., 20% reduction for B20 blend, 50% reduction for B50 blend). To be conservative, NBB estimates the PM reduction from using B100 would be approximately 86%

more severe cases of coronavirus. According to the American Lung Association's annual State of the Air Report, more than 50 percent of New Yorkers live in areas with failing air quality and the greater New York City metropolitan region is consistently ranked in the top 10 cities with the worst air quality in the country.

A Clean Fuel Standard can also enable the complete displacement of petroleum diesel used by fleet operators. Existing fleet managers can convert their fuel consumption to 100% renewable fuel simply by purchasing and using a blend of 80% renewable diesel and 20% biodiesel (R80/B20), which would result in the environmental and public health benefits noted above without any use of petroleum diesel. As a matter of fact, the R80/B20 blend has become the premium blend at many CA truck stops, with no petroleum diesel being sold.

Health Benefits of Using Biodiesel Confirmed in Trinity Consulting Study

The health benefits of using biodiesel in place of petroleum heating oil has been studied by Trinity Consulting. Trinity studied census tract areas and the surrounding 5-mile radius, so these results are granular and neighborhood specific. The Trinity Study shows the use of biodiesel in space heating reduces cancer rates by 85% in surrounding areas, as well as providing dramatic reductions in cases of asthma, premature deaths, and lost workdays.

Links to the Trinity study:

- https://cleanfuels.org/resources/health-benefits-study
- https://www.biodiesel.org/docs/default-source/trinity-study/trinity-v2-final-report-.pdf?sfvrsn=5d3a35c3_12

Since biodiesel is a drop-in fuel for transportation and home heating, these public health benefits begin accruing immediately upon the use of biodiesel in place of petroleum diesel. This means the asthma attacks, premature deaths avoided, and workloss days can be reduced every year starting today and for the next 10, 20, 30 or more years it will take the state to deploy deep electrification in either sector. For poor and disadvantaged communities that are heavily reliant on petroleum heating fuels or have numerous commercial depots and heavy-duty truck traffic, switching to biodiesel can provide substantial improvements in the health of those communities.

Four communities in New York State were studied: The Bronx, Albany and Buffalo for space heating, and the Port Elizabeth – Port of New York / New Jersey for transportation. The data below represents the results for the transportation site of Port Elizabeth. The full study is attached.

Port Elizabeth – Port of New York / New Jersey

- Reduced cancer burden by over 2,500 cases (86% less)
- About 175 premature deaths avoided per year
- Nearly 75,000asthmas attacks avoided or reduced annually
- Over 33,000 fewer lost workdays each year
- More than 193,000 fewer minor restricted-activity days annually
- Equates to avoided health care costs exceeding $1.43 billion dollars annually

Note: Trinity Consulting is a multi-national firm with 69 offices across the U.S., Canada, United Kingdom, Ireland, Australia and China, and over 40 years of expertise in air dispersion modeling and health risk assessments. The Trinity Study, commissioned in 2020, completed in 2021 and updated in 2022, quantified the local community health benefits of switching from petroleum diesel or distillate to 100%

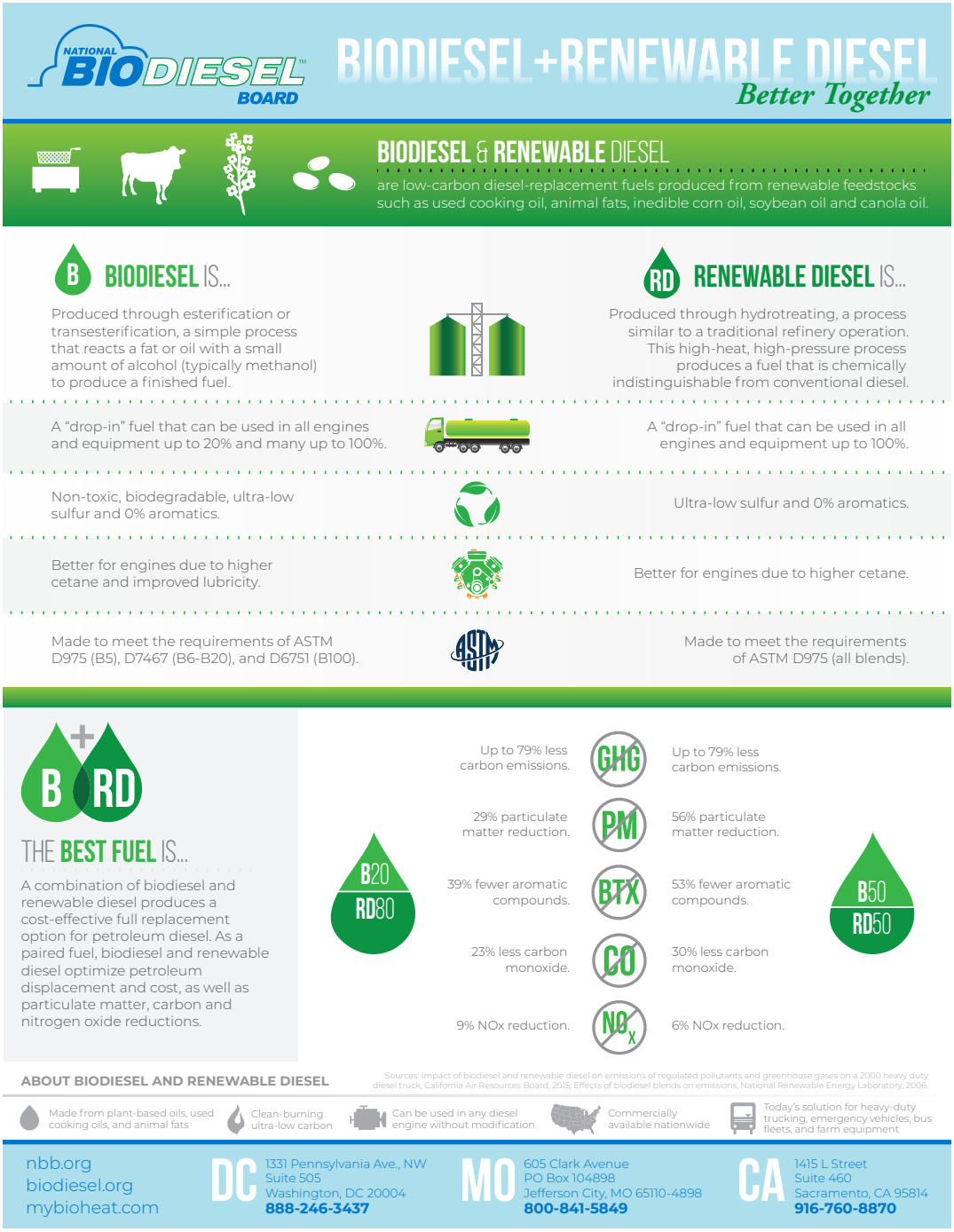
biodiesel in 28 sites across 21 states in the U.S., with a focus on the transportation sector and space heating sector.

Conclusions. Transportation is New York's largest source of GHG emissions—approximately 35 percent and growing. Cars and trucks, which rely overwhelmingly on petroleum-based fuels, represent a significant portion of New York's harmful air pollution. By requiring high polluting transportation fuel providers to purchase credits from low carbon fuel suppliers, the state can reduce greenhouse gas emissions and improve air quality, while creating in-state jobs, supporting regional economic development, and reducing out-of-state payments.

Clean Fuels Alliance America strongly encourages your support for the Clean Fuel Standard [A.862-B (Woerner)/S.2962-B (Parker)] by including this policy initiative in final recommendations on the Draft Scoping Plan. This policy is a proven solution to reduce transportation emissions in New York, improve air quality and drive investment into new industries.

Sincerely,

Floyd Vergara, Esq., P.E.
Director of State Governmental Affairs



Attachment A – Trinity Consultants Health Benefits Study