

Biodiesel and Renewable Diesel Environmental Benefits

Biodiesel and renewable diesel reduce carbon and criteria pollutant emissions from existing diesel engines. Using cleaner, better fuels today can lower health impacts and costs for cities and transportation corridors into the future.

NBB's Ask: Congress should support biodiesel and renewable diesel as critical tools in reducing carbon emissions and criteria pollutants in any energy, transportation, or infrastructure bill.

Reduced Emissions

Biodiesel and renewable diesel significantly reduce criteria pollutants from diesel transportation, according to EPA and the California Air Resources Board.

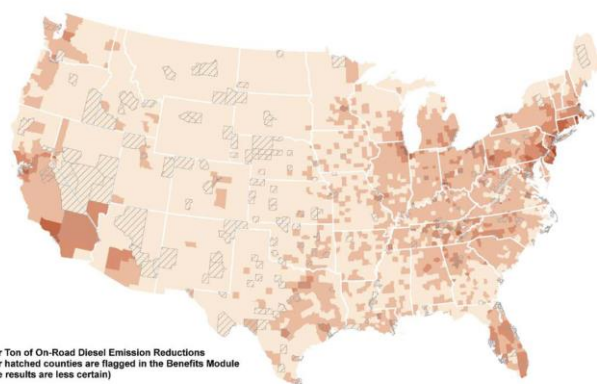
Emission Reductions	Biodiesel	Renewable Diesel
Particulate Matter (Black Carbon)	-79-80%	-5-28%
Carbon Monoxide	-42.6%	-18.8%
Aromatic compounds	-75%	-30%
Total Hydrocarbons	-45%	-20%
Nitrous Oxides	NEUTRAL	-5-18%
Carbon/GHG	-52-79%	-52-79%

Every 100 million gallons of U.S. biodiesel will reduce emissions:

- PM by approximately 252 tons
- Hydrocarbons by over 282 tons.

Reducing Emissions in Key Communities

"Major trucking corridors, warehouse distribution centers and other diesel hot spots close to major population sectors inflict serious harms to human health, and often highlight disparities in the impacts of transportation pollution burdens."



American Lung Association, "The Road to Clean Air," 2020.

The health benefits of reducing these emissions include:

- Reduced upper and lower respiratory symptoms, exacerbation of asthma, chronic and acute bronchitis;
- Fewer acute myocardial infarctions and cardiovascular hospital admissions;
- Reduced mortality;
- Reduced cancer risk;
- Reduced lost workdays.

In 2019 there were 2,320 Illinois B20 Club fleet vehicles using biodiesel blends, saving:

- 6,721 tons of GHG;
- 1,364 lbs. of particulate matter;
- \$700,700 in health costs related to hospitalizations, lost workdays, and other health care expenses for Illinois communities.

The National Biodiesel Board is the U.S. trade association representing the entire biodiesel value chain, including producers, feedstock suppliers, and fuel distributors, as well as the U.S. renewable diesel industry.

www.biodiesel.org



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According to the **National Renewable Energy Laboratory**:

“The presence of oxygen in the fuel leads to a reduction in emissions of hydrocarbons (HC) and toxic compounds, carbon monoxide (CO), and particulate matter (PM) when biodiesel blends are burned in diesel engines.”

David Harris Jr., director of transit and fleet management at **Harvard University**:

“When we were presented with biodiesel, it was almost the simplest sustainability solution.”

- Harvard’s fleet of more than 90 diesel-powered vehicles fills up with a B20 blend year-round.

The U.S. Environmental Protection Agency’s New England office recognized Harvard Fleet Management with the 2016 Environmental Merit Award.

- In fiscal year 2016, Harvard used 100,000 gallons of biodiesel.
- Harvard’s biodiesel use reduced hydrocarbon and sulfur dioxide by 20 percent, carbon dioxide by 15 percent, carbon monoxide by 12 percent, and particulate matter by 12 percent in fiscal year 2016.

For the **American Lung Association of the Upper Midwest**, biodiesel is a Clean Air Choice:

“Biodiesel is cleaner burning than petroleum diesel. In higher concentrations it can significantly reduce air toxics and other harmful emissions. It is a tool that can help lessen our exposure to these air pollutants.”

New York City Council Member Costa Constantinides, who represents a portion of the Borough of Queens:

“Particulate matter is what gets in your lungs and causes asthma. We have communities that have large power plants and other environmental detriments... Going to a 5 percent biodiesel blend was the equivalent of taking about 40,000 cars off the road.”

- 87% of New York City schools use a bioheat blend, leading the way in reducing carbon and criteria pollutant emissions.

In 2015, the City of New York Department of Sanitation (DSNY) was the largest annual emitter of CO₂e, NO_x, and PM_{2.5}.

- In 2020, 100% of the DSNY fleet fueled with biodiesel blends, primarily B20.
- New York City’s renewable diesel use reduced carbon monoxide by 12 percent, particulate matter by 34 percent, and nitrous oxides by 10 percent in 2018.

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