

BIODIESEL CAN HELP NEW YORK ACHIEVE ITS CLEAN ENERGY GOALS

Environmental Solutions

B10 10% Biodiesel eliminates 100 million gallons of heating oil, the equivalent of making 102,000 homes carbon neutral.

B20 20% blend produces a 14.6% reduction in CO₂ emissions and better GHG performance than natural gas (NESCAUM).

B50 50% biodiesel use eliminates 500 million gallons of heating oil and 4.29 million metric tons of carbon.

B100 100% biodiesel use eliminates 1 billion gallons of heating oil and 8.59 million metric tons of carbon.

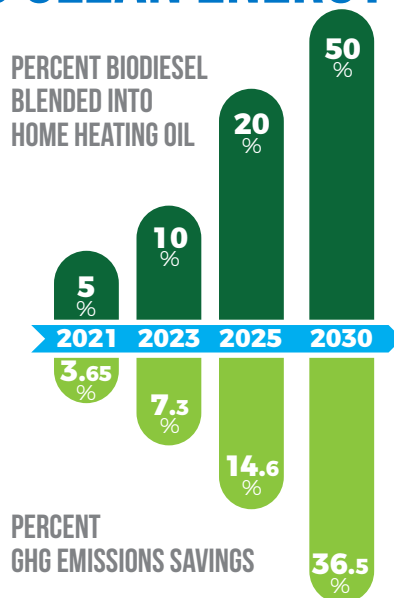


Biodiesel blended heating oil also reduces SO_x, CO₂, particulate matter and mercury emissions (NESCAUM).

EMISSIONS IMPROVEMENTS: BIODIESEL VS LOW SULFUR (LS) AND ULTRA LOW SULFUR (ULS)

AVG. CHANGE	PAH	PM	CO	NO _x	SO ₂	CO ₂
Percent	-90 to -95%	-85%	Similar to -15%	Similar to -25%	-98% (LS) Similar (ULS)	-73%

HEATING INDUSTRY PROPOSAL TO LOWER CARBON EMISSIONS



CURRENT LAWS

NYS law requires 5% biodiesel blending in space heating applications in Westchester, Nassau and Suffolk counties

New York City law requires biodiesel blends of 5% (2017), 10% (2025), 15% (2030) and 20% (2034)

Economic Solutions

\$4B Home heating oil is a \$4 billion industry

1.4M NYS households rely on oil heat. NYS homes and businesses use more than 1 billion gallons of heating oil annually

753 NYS home heating oil retail businesses

8,609 full time jobs

Sources: Macor, A., Pavanello, P., Performance and Emissions of Biodiesel in a Boiler for Residential Heating, Energy, vol. 34, 2009.C; Krishna, C.R., Biodiesel Blends in Space Heating Equipment, Brookhaven National Laboratory, 2001; USDA/DOE 1998, Life Cycle Inventory of Biodiesel and Petroleum Diesel for Use in an Urban Bus; Lee, S. Win, He, I., Heritage, T., Young B., Laboratory Investigations on the Cold Temperature Combustion and Emissions Performance of Biofuels Blends, 2003; U.S. Environmental Protection Agency, Greenhouse Gas Equivalencies Calculator, <https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator>; NESCAUM, "Low Sulfur Heating Oil in the Northeast States: An Overview of Benefits, Costs and Implementation Issues," December, 2005, p. 2-7