

Transforming Heating Oil: Your Heating Fuel is Changing but Your Comfort is Secure



The liquid fuel being delivered to homes and businesses throughout the Northeast and Mid-Atlantic is evolving. Traditional heating oil is increasingly being blended with renewable liquid fuels, creating cleaner-burning options commonly known as **Bioheat® fuel**.

For the more than five million homes and businesses in the U.S. that use heating oil, the important result is that they can reduce the carbon intensity of the fuel they use while continuing to enjoy the comfort, reliability, and convenience of liquid-fuel heating. And renewable liquid fuels do not require major heating system modifications or system replacement.

Same Mission. Better Fuel. Cleaner Future.

For generations, local heating oil companies have delivered more than fuel. They have delivered comfort, unparalleled dependable service, and energy-efficient heating equipment. But with a focus on innovation, the heating oil industry, along with its partners at Clean Fuels Alliance America (CFAA), have spearheaded an evolution spanning two decades.

The industry has worked diligently to modernize and improve the environmental profile of this fuel, with measurable success, with renewable liquid biofuels made from feedstocks including soybean oil and recycled cooking and vegetable oils that are blended with traditional distillate fuels – heating oil and diesel fuel.

The transformation has occurred through a combination of regulatory reform and private-sector investment. Heating oil industry associations including the Massachusetts Energy Marketers Association and CFAA voluntarily partnered with state regulators and lawmakers to dramatically reduce sulfur content in heating oil back in 2015. At the same time, the industry invested millions of dollars to support research and consumer awareness campaigns demonstrating the carbon-reducing benefits of blending ultra-low sulfur heating oil with renewable liquid biofuels also known as biodiesel and Bioheat® fuel.

As a result, carbon emissions have steadily declined in millions of homes and businesses throughout New England, New York, and other key heating oil states. These cleaner fuel blends provide immediate emissions reductions using existing heating systems and infrastructure. They are readily available, cost-effective, and highly efficient.

Despite this progress, some organizations and groups continue to characterize heating oil as outdated fuel while overlooking the fact that liquid biofuels provide a pathway that can use much of the existing liquid-fuel distribution and combustion infrastructure for reducing the carbon content in heating oil.

The benefits of renewable liquid fuels are also reflected in public policy. Massachusetts enacted the Alternative Energy Portfolio Standard (APS) in 2017 to encourage the use of specific biofuel blends in heating oil.

Today, over seventy-five retail heating oil companies in Massachusetts are participating in the APS program and are blending between 10% (B10) and 50% (B50) biofuel in heating oil that is being delivered to customers across Massachusetts. Further, the Massachusetts Department of Environmental Protection is expected to advance a Clean Heat Standard in 2028 that would further incentivize renewable fuel blends in heating oil.

Other states have recognized the environmental value of biofuels as well. Connecticut, New York, Pennsylvania, and Rhode Island have adopted mandated blending requirements for heating oil and/or diesel fuel that incorporate renewable biofuels.

Major U.S. heating oil equipment manufacturers are also assisting in this transformation. Beckett, Carlin, Energy Kinetics, and other manufacturers are offering heating oil burners and boilers that are compatible with using B100 – 100% renewable fuel.

Additionally, in April of 2026, the American Society of Testing and Materials (ASTM) expanded its support for higher biodiesel blends in heating oil with the adoption of a new standard for blends from B21 to B50.

And in one of the most important related developments, the National Oilheat Research Alliance (NORA) recently completed an extensive field study in Massachusetts and Pennsylvania on the use of 100% (B100) renewable fuel. The field study, *Conversion of Oil-Fired Heating Systems to 100% Renewable Fuel*, successfully evaluated B100 blends comprised of 80% renewable diesel and 20% biodiesel (RD80/BD20) and 50% renewable diesel and 50% biodiesel (RD50/BD50) in a combined 121 homes in both states.

Collectively, these efforts, programs, laws and regulations support an all-energy-source approach for home and commercial heating purposes, Renewable fuel blends also provide the heating oil industry with the opportunity to assist in climate change mitigation efforts, and provide homeowners and businesses with innovative options for affordable, dependable, and clean heating and cooling in the years ahead.



Massachusetts Energy Marketers Association
massenergymarketers.org