

LOW-CARBON HOME COMFORT

IMMEDIATE | PRACTICAL | SUSTAINABLE

Bioheat® fuel has been reducing lifecycle greenhouse gas emissions for decades through biodiesel and renewable diesel blended into the fuel stream. As the blends increase, carbon emissions decrease.

Bioheat® fuel has been made possible by the liquid fuel heating industry taking the initiative to be a leader in carbon reduction through four pillars.

INFORMATION

Research, field testing and technician education.

INFRASTRUCTURE

Domestic feedstocks, production, blending and delivery.

INNOVATION

Fuel-ready equipment, higher efficiency and smarter controls.

INTEGRATION

Existing systems and local service bring lower-carbon fuel to homes.

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FOUR FOUNDATIONS | BIOHEAT® FUEL BEGAN THE HOME COMFORT MOVEME

INFORMATION



EVIDENCE BEFORE ADOPTION: DECADES OF LABORATORY & FIELD TESTING

Laboratory research and field demonstrations have built the technical foundation for renewable liquid heating fuels. Extensive R&D by esteemed research organizations, such as: NORA, Clean Fuels Alliance, Brookhaven National Laboratory and heating system manufactures has advanced Bioheat® fuel and supports its use at increasingly higher blends.

Real-World Results

A multi-year field study demonstrated that properly blended renewable fuels can provide reliable heating while helping the liquid heating fuel industry reduce lifecycle greenhouse gas emissions using existing heating systems.

Technical Training

Technical training to help heating service professionals understand how renewable fuels, including Bioheat® fuel and renewable diesel, perform in existing heating systems

RESEARCH GUIDES EVERY STEP

INNOVATION



MODERN SYSTEMS COMBINE RENEWABLE-FUEL CAPABILITY WITH HIGHER EFFICIENCY AND IMPROVED DIAGNOSTICS

By operating on fuels such as B100 biodiesel and R100 renewable diesel, they provide a practical pathway to substantial lifecycle carbon reductions while preserving the reliability, comfort and established delivery infrastructure homeowners already depend on.

Greater Efficiency

Today's liquid fuel heating systems represent a great leap forward in efficiency and may be up to 40% more efficient than older systems. Modern boilers and furnaces combine improved heat exchangers, better combustion control, reduced standby losses and advanced burner technology to extract more useful heat from every gallon of fuel.

Smarter Controls

Newer controls offer benefits beyond renewable-fuel compatibility. Improved ignition, safety timing, flame monitoring, diagnostics and communication can increase reliability and help technicians restore operation more quickly.

TECHNOLOGY AND FUELS ADVANCE TOGETHER

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INTEGRATION



LOWER-CARBON FUEL ALREADY HEATS MILLIONS OF HOMES

Local fuel marketers already have the infrastructure and experience needed to deliver liquid heating fuel directly to homes and businesses. This well-established network includes regional terminals, bulk storage facilities, delivery vehicles, service departments and trained technicians who install, maintain and repair heating equipment.

Because this system is already in place, renewable liquid fuels have been in use without the creation of entirely new distribution network allowing households lower lifecycle greenhouse gas emissions while continuing to use familiar, dependable heating system.

A Better Fuel

Bioheat® fuel combines renewable biodiesel with ultra-low sulfur heating oil to create a lower-carbon fuel for heating homes and businesses. The biodiesel component is produced from renewable feedstocks such as plant oils, used cooking oil and recycled animal fats. Increasing the use of Bioheat® fuel provides a practical way to reduce the carbon intensity of home heating

CARBON REDUCTION NOW

INFRASTRUCTURE



LOW-CARBON FUELS FROM PLANT OILS, USED COOKING OIL & ANIMAL FATS

The U.S. biodiesel industry includes a broad network of commercial-scale facilities that convert domestic renewable feedstocks—such as soybean oil, used cooking oil and animal fats—into finished fuel that meets ASTM quality specifications. Supported by established processing, storage, testing, transportation and blending infrastructure, these facilities can supply large volumes of biodiesel while expanding production as demand grows.

An established transportation network moves biodiesel from production plants to terminals and wholesalers by rail, truck and barge. At regional terminals and bulk plants, the fuel can be stored, blended and loaded into conventional delivery vehicles for distribution to local fuel marketers.

Local Distribution

The infrastructure needed to support and expand Bioheat® fuel use is already in place. Existing terminals, storage tanks, loading racks, delivery trucks and local distribution networks handle biodiesel blends with appropriate equipment and operating practices.

50%-80% LIFECYCLE GHG REDUCTION, DEPENDING ON THE PATHWAY

RESEARCH GUIDES EVERY STEP | TECHNOLOGY & FUELS ADVANCE TOGETHER | CARBON REDUCTION NOW | 50%-80% LIFECYCLE GHG REDUCTION

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LOWER CARBON NOW

Bioheat® fuel was the first and still the most practical way to reduce the carbon intensity of home heating using familiar heating systems, local service and an established delivery network.

- Millions of homes have been using low-carbon-Bioheat® fuel for decades
- Immediate lifecycle greenhouse gas reductions that grow as renewable content increases.
- Existing delivery and service infrastructure brings the fuel directly to homes.
- Backed by decades of laboratory and field research.

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Blend-level compatibility should be confirmed by a trained heating professional. Lifecycle emissions vary by feedstock and production method.