

National Oilheat Research Alliance

Major Initiatives and Notable Achievements

Helping Build a Safe, Innovative and Environmentally Sound Industry

During its existence, the National Oilheat Research Alliance (NORA) has set the standard for industry-wide cooperative activity with its professionalism, effectiveness and, most importantly, satisfaction from its supporting members. Through its rigorous commitment to activities that benefit *all* of its members, customers, and the public at large, NORA is able to harness the collective strength of its companies and their resources to share cutting-edge technological advances, the latest in training methods, and promising environmental initiatives throughout the industry.

The oilheating industry is requesting your support for expanding and continuing these important programs. We need an extension of the program to be included in energy legislation and we need that legislation to be enacted as soon as possible. We encourage you to work with the House Energy and Commerce Committee and the Senate Energy and Natural Resources Committee to extend NORA.

Below is a sampling of NORA's recent success:

RESEARCH AND ENVIRONMENTAL RESPONSIBILITY

NORA has established the Liquid Fuels Research Center (LFRC) that has developed many new technologies.. Among the issues LFRC is studying on behalf of the oilheat industry is a systematic evaluation of the fuel component of the Oilheat system to **maximize fuel performance** for oilheat customers. This study includes:

- * Fuel Interactions and stability, and the impact on fuel performance;
- * Better understanding of what cause fuel to degrade in storage.
- * How heating oil and biofuel work can be safely integrated into existing equipment.

NORA has developed the scientific evidence which has encouraged the industry to use low sulfur fuel. This evidence shows that this fuel is good for the environment, good for energy efficiency and good for customers

In addition to these major projects, NORA is also working on numerous issues of interest to the industry, including a study on improving furnaces and boiler heat exchangers to maximize the heat delivered to the home. Such developments will lower the cost of the appliance and increase its efficiency.

NORA also evaluated the efficiency of combined appliances. While these appliances are very efficient at delivering heat and hot water, there has not been an effective way of measuring their efficiency. NORA conducted a wide-ranging and thorough study in conjunction with the New York State Research and Energy Development Authority (NYSERDA). This research was translated into a calculator for service technicians to use in helping customers evaluate and select the most efficient boiler for their home. This project needs to be expanded to provide technicians an easy way to evaluate equipment in homes, and compare it to new equipment.

Other projects include:

- Extensive Work to Develop an Electronic Smoke Tester
- Developed Static Tank Tightness Testing
- Developed a Five Ton Heat Pak
- Developed a Two Stage Furnace
- Developed Condensing Furnace Technology
- Developed Smart Controls for Burners
- Developed Condensing Boiler
- Developed Ultra Clean White Flame Burners
- Developed Low Mass Ultra Efficient Water Heater
- Developed Modulating Heating Oil Burners

Currently Working on

- Next Generation Venting Solutions for High Efficiency Appliances
- Oil Fired Heat Pump with Efficiencies of 140 Percent
- Self Powering Heating Oil Furnace with Thermophotovoltaics
- Next Generation Heating Oil Blend of Heating Oil and Biodiesel

EDUCATION, TRAINING AND SAFETY

NORA is committed to making sure that professionals in the oilheat industry have access to the latest innovations in oilheat technology. NORA is making it easy for oilheat professionals to be aware of the most up-to-date methods and practices to help them deliver the most outstanding customer service possible. During the past three years, NORA has:

- Created a **standardized certification program** for technicians through establishment of the NORA Education Center. There are over 16,000 technicians that participate in this certification program. It is accepted as the training requirement in Vermont and New Hampshire and New York uses it as preferred training. Many insurance companies now use this certification and affiliated training in their risk management programs.
- Revised a comprehensive ***Oilheat Technician's Manual***, along with an instructor's guidebook and visual aids.
- Established the **NORA Fulfillment Center** to ease access to NORA products and materials, including professional training video tapes, business education tools, and consumer information aids.
- Provided **new training information for service providers** responding to a host of consumer issues, including troubleshooting, system tune-up and efficiency procedures, and fuel delivery, and how to deliver fuel to protect the environment.
- Developed an **Education Center website** (www.noraed.org) to provide instantaneous on-line access to NORA training materials.
- Supported an initiative by the National Association of Oilheat Service Managers (NAOHSM) to provide **career outreach programs** to encourage bright, hard-working young people to consider a career in the Oilheat industry.

- NORA has developed 16 training videos, which have been distributed to all of the service personnel in the industry. Additionally, these videos are available for download on the NORAed website.
- NORA has developed a comprehensive approach to the storage of oil in tanks. This approach included developing a cooperative relationship with insurers, and state regulators. As a result of this project NORA developed a training manual and curriculum, video training, and a certification program. Additionally, NORA developed a recommended procedure for cleaning up releases from heating oil tanks.
- NORA has developed and distributed hundreds of thousands of posters that provide correct methods for turning up equipment, delivering oil, installing tanks, to ensure that workers are continuously exposed to the proper procedures.
- NORA has developed a “National Energy Conservation Analyst”. This program educates heating oil technicians on a whole house approach. Energy Conservation technicians who participate in this program get an understanding of how the house envelope interacts with the heating system, how to evaluate the house, and how to recommend solutions for customers.

In addition, NORA is playing an active role in supporting statewide education and training activities for state and local professionals. The following are samples of some of the activity that has occurred. :

Connecticut: With NORA underwriting support ITEC delivered 250 presentations to realtors to help them understand how to handle the environmental responsibilities of underground tanks. ITEC communicated with 550 of the state’s leading construction companies about new, high efficiency oil heating equipment that reduces emissions and saves Consumers’ money. Served the training and licensure needs of over 1,000 people who go through ICPA’s Technical Education Center each year, some of whom are being retrained for new careers in our state in the professional energy conservation technician trade. ITEC is expanding into training workers to view the home and business as an entire energy unit, expanding their skills to include BPI energy conservation training. With NORA’s leadership in a new program started in 2009, ITEC has also received state approval for the first solar/thermal certification program in Connecticut as the new Oilheat and solar/thermal applications join as a single energy delivery system.

Indiana: Supported extensive seminars and training programs

Nevada: Helped expand continuing education programs from service technicians to help for energy auditors, home inspectors and front office and management personnel.

Washington: Supported scholarships to the Oilheat Service Technology School.

New York: Provided new heating equipment for technical/trade schools. In New York City, high school students are regularly trained and tested. Long Island established a cooperative agreement with the local community colleges and now has an extensive heating oil education program.

New Jersey: Established month-long Basic Oilheat Technician Education Program at local county college facilities.

Maine: Produced safety manuals in both print and electronic forms. Operates a state of the art training facility, provides certification training, and hundred of continuing education classes.

Vermont: Helped create two permanent statewide training facilities and purchased new oilheat equipment for training purposes. Over 700 technicians are trained annually.

North Carolina: Enhanced published training materials and created new HVAC training programs in 10 North Carolina community colleges. 50 technicians per year are certified.

Virginia: Provided cross-training opportunities for oilheating technicians to work on joint Oilheat/air conditioning systems

Kentucky: Developed an outreach program for oilheat consumers in the state

Pennsylvania: Provides a certification program and a full slate of continuing education classes. Each year nearly 500 technicians receive certification.

Washington: Washington has a certification and training program, and provides continuing education.

The training and certification programs operated by NORA and the qualified state associations have provided employment opportunities for thousands of individuals who are now working in their communities. These dedicated individuals now provide safe and comfortable homes for millions of homes. They also have jobs that provide a good salary, and benefits, and provide them an opportunity to buy homes and raise families.

PUTTING TECHNOLOGY TO WORK FOR CONSUMERS

NORA is committed to helping its state partners communicate the latest oilheat benefits, technological advancements, and enhanced customer service techniques to existing and potential oilheat customers. NORA is helping consumers understand the industry's ongoing commitment to providing safe, efficient, reliable oilheat services in an environmentally sound and thoughtful manner.

Through a variety of **media and community outreach campaigns**, NORA is making sure that home inspectors, real estate professionals, and consumers are aware of the improvements in oilheat technology. Among the published materials for use in these consumer education programs:

- A **Homeowner's Guide** describes the benefits of on-site fuel supply, the cleanliness and efficiency of oilheat systems, and information about storage for real estate purchasers considering homes with existing oilheat systems.

- An **energy efficiency pamphlet** gives consumers helpful suggestions for efficient use of oilheat, helping them save money on heating costs.

NORA also supports the efforts of state associations that emphasize the productive role oilheat plays in local communities. These state associations regularly distribute materials for homeowners on how to use oilheat safely and efficiently.

The consumer education activities which are extensive provide continuous information to consumers in each of the states. Advising customers of how to save energy, how to use Oilheat safely and efficiently, and what types of equipment they should use to improve efficiency.

Conclusion

The combination of having efficient appliances, having technicians and companies understand the benefits the equipment provides and a dialogue with customers have provided Oilheat customers a great value. As a result of these programs, companies, employees and customers are working together to improve efficiency. For nearly twenty years the amount of oil consumed per household stayed relatively level. However, in the middle of this decade with NORA's support, Oilheat customers were able to make strides in energy efficiency that had not been seen since the 70's. NORA's data has shown a decrease in consumption of nearly 30 percent, which is supported by both dealer information, and overall collections to NORA. This dramatic decrease in demand, which would not have occurred without NORA provides benefits to customers, to the country and to the Environment.