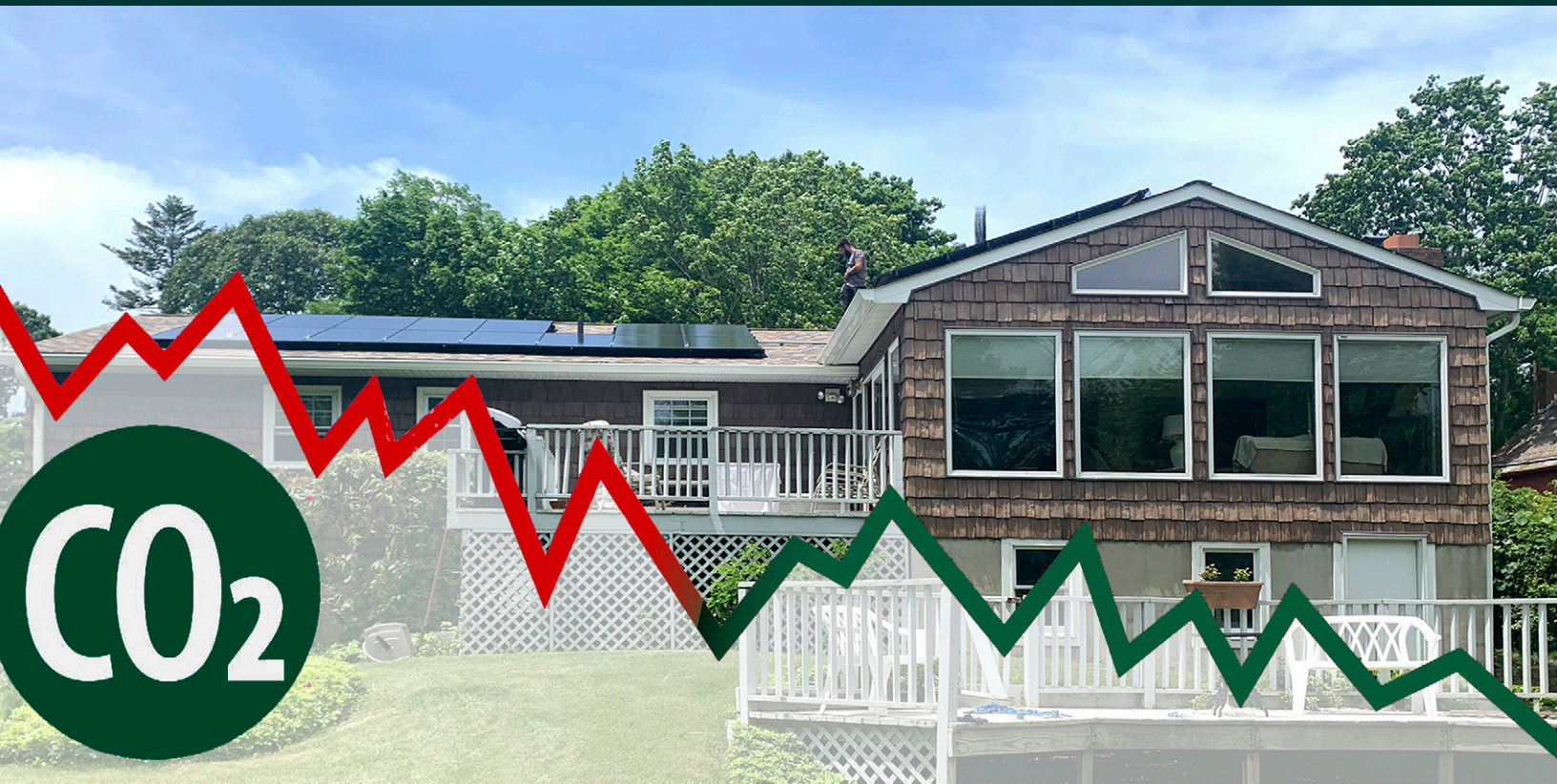


ANNUAL REPORT 2022



NORA 2022 Directors

NORA was authorized by Congress in 2000 to generate funding, from within the liquid heating fuel industry to provide more efficient and more reliable heat and hot water to American consumers. NORA's efforts focus on Energy Efficiency, Environmental Responsibility, Safety, Research & Development and Professional Education, with particular emphasis on transitioning heating oil and its appliances to a low-carbon source of heat and hot water. *For more information on NORA, go to NORAweb.org or info@noraweb.org*

NORA is governed by a Board that represents wholesalers and retailers in every state where NORA is active. Additionally, the Board includes representatives from the research and manufacturing communities. The Board meets twice a year and is responsible for the general governance of the Alliance.

NORA 2022 Officers:

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Roger Marran

Vice Chair
Kate Duffey

Treasurer
Eric DeGesero

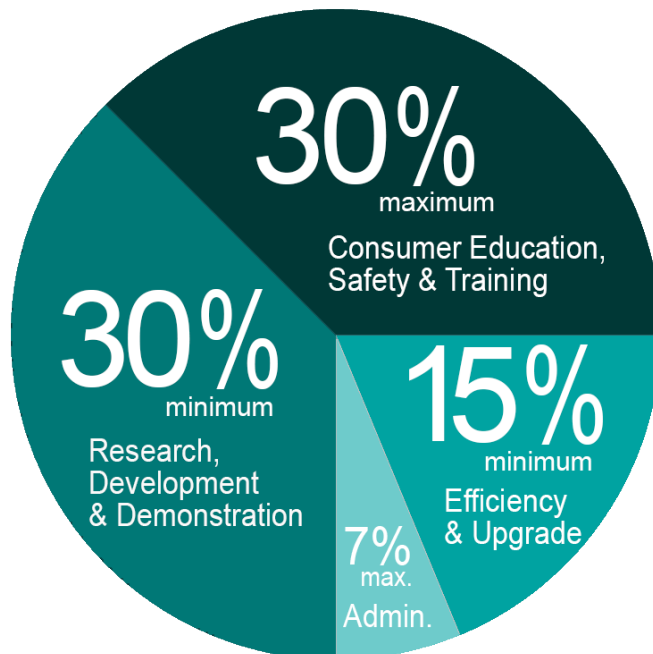
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Scott Vadino
Carter Vaillancourt
Dave Walton



NORA spending must be directed to three major areas for the advancement of liquid fuel heating technology, education & efficiency.





NORA Activities

are: Research, Development & Demonstration, Consumer Education, Training & Safety and Energy Efficiency. Within these areas, NORA concentrates on three tenants: *Technician Training*, *Energy Efficiency & Carbon Reduction*. Through the adoption of renewable, low-carbon fuels, the liquid fuel industry in reducing carbon emissions in an immediate and sustainable way.

NORA activities cover a broad range of areas at the state, regional & national levels. The statutory areas of involvement

R & D focuses on Carbon Reduction

CODES AND STANDARDS

The transition from fossil fuels to renewable liquid fuels requires the creation of new American Society of Testing and Materials (ASTM) fuel standards, changes to codes such as NFPA, and the definition of new UL test protocols enable commercial sale of biofuel-compatible system components.

The use of liquid fuels for heating in residential and commercial buildings is conducted in full compliance with building codes to ensure safe practices. Building codes typically incorporate those published by the National Fire Prevention Association (NFPA). Major equipment and system components are approved by Nationally Recognized Testing Laboratories (NRTL) typically following test protocols published by Underwriters Laboratories (UL) for specific parts of systems such as burners, pumps, boilers, furnaces, and controls. These codes and protocols, in turn, rely on standards such as those published by ASTM to define the properties of the fuels which will be used and the test procedures to verify these

properties. In some cases, European or other standards are also adopted in these ASTM standards.

Major accomplishments prior to 2022 included the development of an ASTM specification for 100% Biodiesel (B100 - ASTM D6751) and modifications to the liquid heating fuel standard (ASTM D396) to incorporate the definition of biodiesel blends. In addition, changes to the NFPA codes were implemented to enable manufacturers to state that their products were suitable for use with biodiesel blends. NORA has also developed recommendations to ensure that tanks remain secured during flood events.

NORA focused on working with UL to modify equipment test protocols to enable approval and listing of burners and other components for biodiesel. NORA technical staff are voting members of the UL Standards Technical Panel (ULSTP) for burners (UL 296) and pumps (UL 343).

In technical discussions within the ULSTP a decision was made to adopt the ASTM D6751 standard for the definition of B100 and then develop a single test

protocol that could be used to list burners for use with fuels from B20 up to B100. This step was a significant simplification of this process and strongly helped to accelerate burner approvals.

B50 & B100 LAB TESTS

NORA has developed a standard testing method to create a combustion profile. This procedure has been used with various fuels, some tested under multiple system configurations, to build a database of combustion profiles. This allows for a rapid evaluation of different fuels in different equipment.

As part of NORA's continued efforts to provide technical support to the industry and improve equipment, NORA has worked with the world's leading fuel pump manufacturer. This company wanted to ensure the pumps they sold were designed for and suitable for 100% biodiesel. This company and NORA developed a sophisticated test procedure to evaluate pumps that could be done rapidly and identify any potential issues. This procedure performed rapid cycling of pumps that contained a few minor modifications developed by NORA and the manufacturer to continuously monitor pressure in the pumps.

NET ZERO CARBON HOME

NORA developed the Net Zero Carbon Home Project to demonstrate the feasibility of a residence to be a net-zero emitter of carbon. NORA achieved this by substituting the fossil-based heating fuel with 100% biodiesel (B100) and installing a solar photovoltaic (PV) system to generate renewable, carbon-free electricity for non-heating uses. Since biodiesel is not fully carbon neutral, the solar PV system was sized to meet 110% of the yearly on-site electric consumption, and net metering was implemented.

NORA's first net zero carbon home site utilized B100 for heating prior to the project and is in Port Jefferson, NY. During the project, a rooftop solar PV system was installed on this home and detailed data collection was performed.

The combination of both the B100 fuel and the solar PV system achieved significant emission reductions. After one full year of operation, the results demonstrate that the site provided net savings of 2,057 lbs. of CO₂ due to the higher energy production values than consumption values for ten out of the twelve months analysed.

COLD FLOW & HIGH BIODIESEL BLENDS

Over the past 15 years, biodiesel has emerged as the most widely available and used renewable liquid heating fuel. Hundreds of thousands of homes in the Northeast have already implemented the use of 20% biodiesel blend with heating oil (by volume, hereafter referred to as B20, and BXX for any other percentages of biodiesel) as standard. Some liquid fuel marketers are exploring delivery blends up to B100 to select customers.

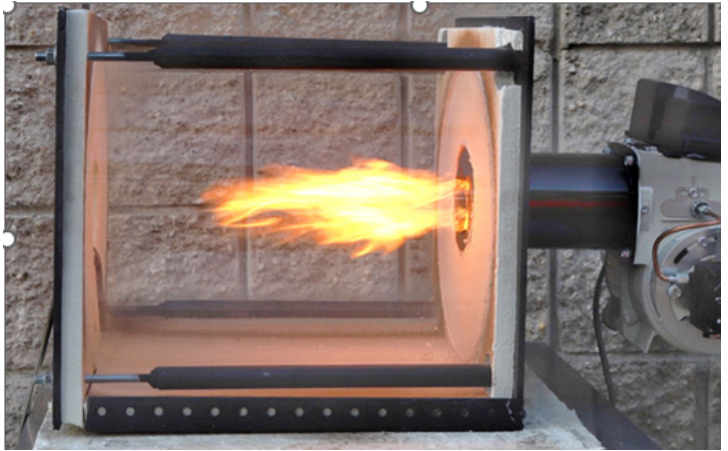
In the summer of 2022, four fuel storage tanks were installed at the

Connecticut Energy Marketers Association site in Cromwell, CT, to conduct field testing of immersion heaters with higher wattage. Fuel supply lines, heated using fuel line heaters, were connected from heating systems inside the building to each tank so that fuel could be drawn from them. In-tank immersion heaters were installed in each tank. The heaters each had a measured power rating of ~290W. Temperature sensors with loggers were installed at various points across the entire setup.

HIGH EFFICIENCY LIQUID FUEL HEAT PUMP

NORA, and the liquid fuels industry, are exploring the development and market introduction of fuel-fired heat pumps. These offer the potential for achieving dramatically higher thermal efficiency – the equivalent of ~ 140% from fuel input to thermal energy output - while running on 100% renewable fuel.

NORA is collaborating with A Tennessee-based manufacturer who has developed an ammonia/water absorption system. The system has been developed for use with natural gas and has undergone several successful field trials. The company reports that commercial production of gas-fired products has started. It is our understanding that U.S. Department of Energy (DOE) has supported this work for natural gas. Given the similarity with the



A quartz cylinder demonstration stand allows for monitoring combustion with varying blends of renewable fuels.

combustion process, NORA saw this as an opportunity to piggyback on this important work. Additionally, the New York State Energy Research and Development Authority (NYSERDA) provided additional funding with the goal of having a highly efficient renewable fuel application available in the extreme cold of New York.

All testing to date has been done using 100% biodiesel however, the system could run with renewable diesel or other similar fuels. NORA will also evaluate whether ethyl levulinate could work in such a system which would potentially increase greenhouse gas reductions by 20-40%.

This project has demonstrated the technical feasibility of using a renewable liquid fuel in an extremely high efficiency fuel-fired absorption heat pump.

ETHYL LEVULINATE, RENEWABLE HEATING FUEL

Ethyl levulinate (EL) is a renewable biofuel derived from non-food cellulose-based materials, such as wood waste or wastepaper. NORA has focused on EL as its physical characteristics appear to be closer to heating oil, and it also has some extremely attractive features. This is an attractive feedstock as there are currently substantial amounts of waste wood materials available. A state with a forestry or paper industry EL has a very favourable greenhouse gas reduction score. A "Well to Burner Tip" GREET study analysing the life-cycle emissions of EL when produced from forest residues and wastepaper done by EarthShift Global in 2022 showed EL reducing greenhouse gas emissions by over 100% when compared to petroleum diesel.



The first net zero site after installation of solar PV panels

Consumer Education, Safety & Training

CERTIFIED TECHNICIAN TRAINING & CERTIFICATION



Liquid heating fuel technician training is a priority of NORA. To elevate and standardize technician training, NORA offers levels of certification ranging from the entry level Bronze Certification, the Silver Certification for experienced technicians and an advanced Gold Certification, which requires advanced training in several disciplines. Since this program was adopted, two states (Vermont and New Hampshire) and two counties in New York have adopted it for the state license or regional license.

The Bronze Certification, an entry level certification for persons who have minimal field experience. The program requires a minimum of 80 hours of classroom and lab instruction at a NORA certified school.

The Silver Certification program is designed for Oilheat technicians who already have three or more years' experience in the field.

Gold Certification, the highest awarded by NORA, is for those wishing to move beyond basic installation and repair. Gold prepares technicians to provide systems analysis, advise customers about equipment needs, diagnose home comfort problems, and provide efficiency recommendations.

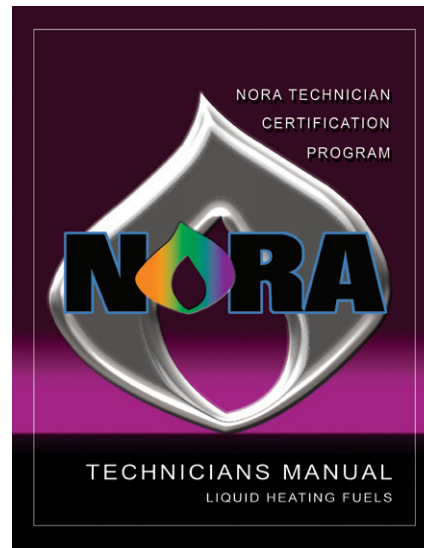
TECHNICIANS MANUAL FOR LIQUID HEATING FUELS

An accurate, widely accepted technical manual is required for both training new technicians and as a reference for experienced technicians. To meet this need and provide a textbook for its Liquid Heating Fuel Certified Technician program, NORA released the *Technicians Manual for Liquid Heating Fuels*. This has become “the” reference used by every vocational training program that offers

liquid fuel training—including high school vocational programs, community colleges, State associations and both for profit and non-profit trade schools.

This manual presents to students, apprentices, and experienced technicians the latest in liquid fuel heating service and installation information in a readable format with hundreds of photos, illustration, charts, and tables making it the de facto standard technical manual in the liquid fuel industry.

Additionally, the manual is available in an audio file format which is particularly useful for those with limited reading



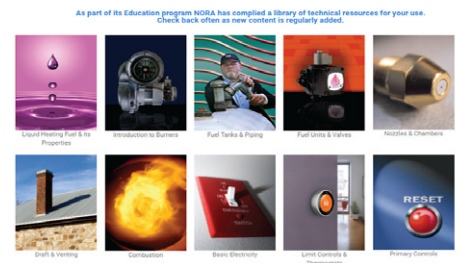
abilities as well as those for whom English is their second language. A pdf and “flipbook” version is also available.

TECHNICAL RESOURCE CENTER

The liquid heating fuels industry is evolving rapidly as low carbon renewable fuels are incorporated into the fuel supply in ever-increasing blends while heating equipment is simultaneously becoming more efficient.

Technicians Manual for Liquid Heating Fuels is the foundation of the NORA technical education program, and it is vital that it remains current. The pace of change is so rapid and continuous updates would not be practicable to continuously update the book.

In response NORA decided to develop an online technical resource to serve as a way to continuously update information,



and provide recent technical information and support to service professionals.

A QR code was printed on the last page of each chapter of the NORA's *Technicians Manual for Liquid Heating Fuels*. The format of the technician's manual was followed when laying out the technical resource center to allow easy reference by topic or by QR code. Each virtual chapter contains in-depth material from manufacturers, industry educators and NORA produced content. An emphasis is placed on providing content in as many formats as possible, written, audio and video.

TRAINING

Technical Education for Professional Advancement

Continuing education, training & certifications for liquid heating fuels service technicians.

Efficiency & Upgrade

EVALUATION OF STATE CONSUMER EQUIPMENT UPGRADE REBATES

NORA's rebate program aims to increase consumer efficiency and safety by encouraging the replacement of existing equipment with modern, efficient systems.

NORA's equipment rebate program concluded that for boiler applications, the average energy savings with equipment replaced under the program was 20%. Furthermore, it is estimated that approximately 850 gallons of pre-upgrade

annual liquid heating fuel was utilized. Based on this value, each boiler replacement site saved 170 gallons per year upon switching to a higher efficiency system. In total, the 1,400 boiler upgrades in 2022 yielded an annual savings of approximately 212,800 gallons of liquid heating fuel.

A similar estimate can be performed for furnace upgrades. NORA received information from the installing contractors regarding the AFUE of the furnace removed and the furnace being installed.

Based on this information, the average AFUE increase for the furnace upgrades was 19.1% (from 67.7% to 86.8%). This increase represented an energy savings of 22%.

However, these contractor estimates appear to provide a low value for the removed furnace (67.7%). NORA's Director of Research, Dr. Thomas Butcher, believes that this energy savings estimate is high—a more

realistic energy savings is 10%.

During the timeframe of the original equipment installation (~1980-1990), the minimum required AFUE was 78%. Assuming the same annual fuel consumption of 850 gallons, the 10% energy savings resulted in a fuel savings of 85 gallons per year. This resulted in an annual savings of approximately 40,300 gallons of fuel across 480 furnace upgrade sites.

For the time period considered (2022) 252,800 gallons of heating fuel were saved. Over an equipment life of 20 years, these first-year savings total 5,056,000 gallons of fuel.

This can also be analyzed in terms of the greenhouse emission reductions. Using a greenhouse gas score for petroleum of 209 lbs/MMBtu HHV (20-year lifetime) leads to a reduction of 3,490 metric tons of CO₂e per year due to equipment upgrades.

In addition to heating appliance upgrades, the NORA rebate program also applies to fuel storage tanks. These funds incentivize homeowners to replace older and/or underground tanks which provides environmental protection against unwanted releases.





State Activities

is qualified to request rebates from NORA for programs that meet the criteria of the NORA Statute. These programs all operate under the four tenants of NORA: Research, Development & Demonstration, Consumer Education Safety & Training and Energy Efficiency with an emphasis on Carbon Reduction.

CONNECTICUT

The Connecticut Energy Marketers Association (CEMA) deploys NORA funding to several key areas: technical education, consumer education, efficiency programs, safety programs, and research & development.

Heating oil/Bioheat® fuel consumers benefit directly from NORA programs that CEMA administers through equipment rebates for new, high efficiency heating oil/Bioheat® fuel fired boilers and furnaces which reduces their energy usage saving them money on their annual heating bills and reduces emissions. Heating oil customers can also access equipment rebates for new heating oil storage tanks, and this contributes to overall environmental safety.

CEMA uses NORA funding to offer oilheat/Bioheat® fuel-related technical education and training opportunities for

heating oil industry employees and the next generation of HVACR licensed professionals.

NORA funds play a vital role in educating liquid heating fuel customers on renewable Bioheat® fuel and energy efficiency measures. This is accomplished through electronic communications via social media, radio, and digital television campaigns to build awareness of the industry's transition to renewable Bioheat® fuel and how consumers can be more energy efficient by using low-carbon liquid fuels.

The consumer awareness and education programs funded by NORA help consumers become more educated about the benefits of energy efficiency, emerging technological advancements for low-carbon liquid fuel equipment, and renewable Bioheat® fuel.

Collectively, NORA funded programs

NORA is an alliance of more than twenty-one associations representing liquid heating fuel marketers. Each state association

in Connecticut are helping to lower costs to consumers, creating jobs, educating consumers, and contributing to the state's goal of reducing fossil fuel use and lowering emissions.

DELAWARE, MARYLAND, & DC

The Mid-Atlantic Petroleum Distributors Association (MAPDA) uses NORA allocations to support the heating oil industry in Maryland, Delaware, and the District of Columbia. NORA Funding is used to improve the energy efficiency and safety of existing heating oil boilers, furnaces, storage tanks and water heaters; offer education and training opportunities for heating oil industry employees; and provide education and training to real estate professionals, home buyers and home-sellers about renewable Bioheat® fuel and energy efficiency measures, and to build awareness of the industry's transition to low-carbon fuel.

Consumers can access equipment rebates for new, high-efficiency oil-fired boilers, furnaces and water heaters through heating oil companies across the state and hence reduce their energy use and save money on their annual heating bills. Heating oil customers can also access equipment rebates for new heating oil storage tanks, and this contributes to overall environmental safety.

Heating oil consumers benefit from MAPDA's NORA-funded real estate education and training program. Via this program, consumers become more educated on energy efficiency, emerging technological advancements, renewable Bioheat® fuel and best practices for saving energy and money when residing in an oil-heated home.

KENTUCKY

The Kentucky Petroleum Marketers Association (KPMA) utilizes its annual National Oilheat Research Alliance (NORA) allocations to improve the energy efficiency and safety of existing heating oil boilers, furnaces, and storage tanks; offer education and training opportunities for heating oil industry employees; offer educational reimbursements to help educate and train Kentucky contractors on heating oil systems; and to create and execute trade show strategies to build awareness of the industry's ability to provide renewable Bioheat fuel® and their efforts to promote energy efficiency pathways for homes.

Consumers can access equipment rebates for new, high-efficiency oil-fired boilers, furnaces, and hot water heaters through companies supplying heating oil across the state to reduce their energy use and save money on their annual heating bills. Heating oil customers can also access equipment rebates for new heating oil storage tanks, and this contributes to overall environmental safety.

With the assistance of the NORA-funded program, the KPMA works with the Pennsylvania Petroleum Association to facilitate attendance at the PPATec training facility where heating technicians are educated on the function of a liquid fuel fired heating system. Included in this training is updates on technologies for reducing carbon emissions and maximizing energy efficiency.

Finally, the NORA-funded program has allowed KPMA the opportunity to exhibit at the National Farm Machinery Show,

the largest indoor farming show in the country by partnering with the Pennsylvania Petroleum Association and the Ohio Energy and Convenience Association. This provided an opportunity to reach people in the agriculture sector and encourage the production and use of biofuels for the heating sector. With the NORA-funded program in Kentucky, marketers supplying heating oil have an effective means to educate consumers on renewable, low-carbon Bioheat® fuel.

MAINE

The Maine Energy Marketers Association (MEMA) uses its annual NORA allocations to support liquid fuel heating companies as well as consumers in Maine. NORA funding is used to support the Maine Energy Marketers Association Education Foundation, an HVAC trade school that is licensed by the Maine Department of Education, with programs approved by the Maine Fuel Board. The Oilheat Technician Training program focuses on energy efficiency measures as well as the safety of existing heating oil boilers, furnaces, and storage tanks.

NORA funding is also used to help Mainers in financial need as local retailers may deliver free fuel to consumers with financial needs as well as offering resources and sites to educate heating oil customers on safety, energy efficiency measures and renewable, low-carbon Bioheat® fuel.

MASSACHUSETTS

Through the Massachusetts Energy Marketers Association's (MEMA) NORA programs consumers can access equipment rebates for new, high-efficiency oil-fired boilers and furnaces through heating oil companies across the state reducing their energy use and save money on their annual heating bills. Heating oil customers can also access equipment rebates for new heating oil storage tanks, and this contributes to overall environmental safety.

Heating oil consumers also derive benefits from MEMA's NORA-funded consumer awareness and education campaigns that include print advertisements, dealer-to-customer newsletters, radio commercials and social media campaigns, and outdoor messaging. Via these programs, consumers become more educated on energy efficiency, emerging technological advancements

for liquid fuels, heating equipment, and renewable low-carbon Bioheat® fuel.

Combined, NORA funded programs in Massachusetts are improving the home and commercial energy landscape and contributing to the state's ambitious goals of reducing fossil fuel use and mitigating the impacts of climate change.

MICHIGAN

The Michigan Petroleum Association/ Michigan Association of Convenience Stores (MPA/MACS) uses its annual NORA allocations to support heating oil companies and consumers in Michigan in a variety of ways. The primary goals of the *Love My Oilheat Michigan* effort are to promote the benefits of liquid fuel heating, increase awareness regarding energy efficiency and the role that today's heating oil systems play in achieving energy efficiency—highlighting the transition of our industry to low-sulphur and increasingly renewable liquid heating fuels and make equipment rebates available.

NORA Funding is used to improve the energy efficiency and safety of existing heating oil boilers, furnaces and storage tanks through its rebate program. Consumers can access equipment rebates for new, high-efficiency oil-fired boilers and furnaces through heating oil companies across the state reducing their energy use and saving money on their annual heating bills..

Additionally, MPA/MACS maintains an education program to build awareness of the industry's transition to renewable, low-carbon Bioheat® fuel and the efforts to promote energy efficiency pathways for homes and businesses using liquid fuels.

NEW HAMPSHIRE

The Energy Marketers of New Hampshire (EMANH) undertook a number of programs to benefit the industry and its customers.

Foremost amongst those activities were its signature Granite State Saves with Oil rebate program. Through this program, EMANH replaced hundreds of outdated and inefficient heating appliances.

EMANH worked diligently to improve safety by sponsoring hazardous material training sessions. All drivers in New Hampshire must have this approved training, and it improves the safety of the

roads in New Hampshire.

EMANH also conducted outreach to real estate agents so that they understand the value of liquid heating fuels and well maintained equipment.

NEW JERSEY

The Fuel Merchants Association of New Jersey (FMA) uses the NORA funding with the primary goal of increasing the awareness of the role that today's heating liquid fuel systems play in achieving energy efficiency, and reducing carbon emissions with the use of renewable low-carbon fuels.

FMA maintains an industry jobs and recruitment program that provides outreach to technical schools faculty, administration and students with information on job opportunities in the liquid heating fuel industry, including NORA Technician Certifications.

FMA's consumer heating equipment rebate program offers incentives to upgrade heating systems for higher efficiency, greater reliability and carbon reduction.

Additionally, FMA offers technical continuing education for technicians to meet their requirements for NJ-State HVAC licensing and federally required training seminars to comply with the Federal Motor Carrier Safety Administration's regulations on transporting hazardous materials.

NEW YORK

The Upstate New York Energy Association (UNYEA) and Hudson Valley Oil & Energy Council (HVOEC) uses their annual NORA allocations to improve the energy efficiency and safety of existing heating oil boilers, furnaces and storage tanks; offer education and training opportunities for heating oil industry employees; offer these companies customer communications materials to educate heating oil customers on renewable Bioheat® fuel and energy efficiency measures; and to create and execute various electronic, print and social media campaigns to build awareness of the industry's transition to renewable Bioheat® fuel and their efforts to promote energy efficiency pathways for homes and businesses using liquid fuels.

Consumers can access equipment rebates for new, high-efficiency oil-fired boilers and furnaces through heating oil companies across the state and hence reduce their energy use and save money

on their annual heating bills.

Heating oil customers can also access equipment rebates for new heating oil storage tanks. This contributes to overall environmental safety.

Consumer awareness and education campaigns include dealer-to-customer newsletters, radio commercials and social media campaigns. Via these programs, consumers become more educated on energy efficiency, emerging technological advancements for liquid fuels and heating oil equipment, and renewable, low carbon Bioheat® fuel.

Combined, NORA funded programs in New York are improving the home and commercial energy landscape and contributing to the state's ambitious goals of reducing fossil fuel use and mitigating the impacts of climate change.

The New York State Energy Coalition (NYSEC) utilizes its annual NORA allocations to support education, energy efficiency and carbon reduction in New York City and Long Island.

Consumers have access to funds via rebates for heating oil equipment upgrades. This providing safety and comfort in their homes, money savings through the new and efficient equipment (less fuel burned) and contributes overall to environmental stewardship and safety.

Additionally, through a consumer facing newsletter, homeowners can find educational facts about renewable, low-carbon Bioheat® fuel and helpful conservation advice. NYSEC also offers an industry newsletter to hearing fuel marketers to educate them on any upcoming NORA training, rebate program updates, Bioheat® updates and more.

Technician training also contributes to the overall comfort and safety for consumers in homes heated with oil. Using NORA funds, NYSEC is able to provide numerous training classes in the NORA/NYSEC state-of-the-art facility. Training classes cover a wide range of topics including equipment installations, latest updates in fire and electrical safety codes, and system maintenance.

NORTH CAROLINA

The North Carolina Petroleum & Convenience Store Marketers (NCPCM) uses its annual NORA funding to improve the energy efficiency and environmental safety of existing heating oil boilers, furnaces, and storage tanks in the state.

Consumers can access equipment

rebates for new, high-efficiency oil-fired boilers and furnaces. This reduces their energy use and saves money on their annual heating bills. Heating oil customers can also access equipment rebates for new aboveground heating oil storage tanks, removal/closure in place of existing underground heating oil storage tanks which contributes to safety and improves the environment.

Heating oil consumers also derive benefits from NCPCM's consumer awareness and education campaigns allowing consumers become more educated on energy efficiency, emerging technological advancements for liquid fuels and heating oil equipment, and renewable, low-carbon Bioheat® fuel.

Combined, NORA funded programs in NC are improving the home and commercial energy landscape and contributing to the state's ambitious goals of reducing fossil fuel use and mitigating the impacts of climate change.

OHIO

The Ohio Oil Heat Council (OOHC) is using its annual NORA allocations to educate Ohio's oil heat suppliers and installers on the improved energy efficiency and increased safety now available from the installation of eligible heating oil boilers, furnaces and storage tanks.

Ohio consumers benefit from OOHC's rebate program for consumer burners or water heaters replaced with eligible equipment to encourage and incentivize upgrading heating systems for greater efficiency, reliability and carbon reduction.

OOHC also maintains a consumer outreach program aimed to educate consumers and heating oil professionals on what they can do to improve their energy efficiency and apply emerging technological advancements for renewable low-carbon liquid fuels and heating oil equipment.

PENNSYLVANIA

The Pennsylvania Petroleum Association (PPA) utilizes NORA rebates to support heating oil distributors and consumers throughout the Commonwealth. NORA funding is dispersed into programs that support specialized industry training, educate stakeholders on best practices to reduce their energy consumption while transitioning to lower emission fuels (Bioheat®), and consumer rebates that improve energy efficiency and safety of oil heat equipment.

PPA operates an industry specific trade school called the Pennsylvania Petroleum Association Technical Education Center, which is a postsecondary entry-level career training institution licensed by the Pennsylvania State Board of Private Licensing Schools and is approved by the Veterans Administration to accept GI Bill® benefits. PPATEC also offers on-the-job contractor training solutions beyond the scope of state and federal approved program activity.

With NORA funding, PPA provides rebates to heating oil consumers who wish to upgrade their existing boiler, furnace, and/or storage tanks. By facilitating thousands of upgrades, the program is reducing consumer costs, fuel use and carbon emissions.

Additionally, PPA maintains real estate professionals and homeowner outreach programs each of which provide education on best practices for energy efficiency, equipment rebate programs and renewable, low-carbon liquid heating fuels.

RHODE ISLAND

The Oilheat Institute of Rhode Island (OHIRI) has worked to improve knowledge of heating liquid fuel heating and renewable low carbon Bioheat® fuel through the use of media communications.

OHIRI also has an active consumer heating system upgrade rebate program that incentivizes homeowners to replace their existing liquid fuel fired heating system with a new more efficient one. These upgrades lower consumer costs while reducing fuel use and carbon emissions.

OHIRI partners with the New England Institute of Technology to prepare students for employment as service technicians.

SOUTH CAROLINA

The South Carolina Convenience & Petroleum Marketers Association (SCCPMA) programs increase awareness regarding

energy efficiency and the role that today's heating oil systems play in achieving energy efficiency, highlight the transition of our industry to low-sulphur and increasingly renewable, low-carbon liquid heating fuels, make equipment rebates available, and provide education to real estate agents, home sellers, home buyers and home inspectors about the efficiency, reliability and environmental benefits of heating with low carbon liquid fuels.

VERMONT

The Vermont Fuel Dealers Association (VFDA) uses its annual NORA allocations to improve the energy efficiency and safety of existing heating oil boilers, furnaces and storage tanks; offer education and training opportunities for heating oil industry employees; offer these companies customer communications materials to educate heating oil customers on renewable Bioheat fuel and energy efficiency measures; and to create and execute various electronic, print and social media campaigns to build awareness of the industry's transition to renewable Bioheat fuel and their efforts to promote energy efficiency pathways for homes and businesses using liquid fuels.

Vermont consumers have access to equipment rebates for new, high-efficiency oil-fired boilers reducing their energy use and saving money on their annual heating bills. Heating oil customers have also accessed equipment rebates for new heating oil storage tanks, which improves the safety of their home while reducing fossil fuel use and mitigating the impacts of climate change.

VIRGINIA

The Virginia Petroleum Marketers Association (VPCMA) has had a strong education program through the support both NORA's Technician Certification Program and improving skills for technicians in the field. Additionally, hazmat training for drives

which ensures parties involved with hazardous materials are well trained improves safety for employees, emergency personnel and customers.

VPMCA's consumer heating equipment upgrade rebates assists consumers in upgrading to higher efficiency heating systems as well as replacing old storage tanks with new above ground ones. These steps improve energy efficiency and the safety of the home and benefit the environment.

VPCMA provides consumer information to residents of the Commonwealth education through its website which includes information on renewable fuels, energy conservation, new liquid heating fuels technologies, and equipment and tank resources.

WISCONSIN

The Wisconsin Fuel & Retail Association (WFRA) uses its NORA funding to increase awareness regarding energy efficiency and the role that today's heating oil systems play highlight the transition of our industry to low-sulfur and increasingly renewable, low-carbon liquid heating fuels.

WFRA offer consumers rebates for liquid fuel systems that offer incentives to homeowners to upgrade to more efficient systems. This provides consumers with lower fuel use and associated costs as well as reducing carbon emissions.

Home inspectors often influence consumers on their heating and the safety and efficiency of their equipment.

WFRA's home inspector education program includes on site, technical training for home inspectors as well as other outreach activities to inform and educate them the technical attributes of liquid fuel heating as well as the environmental advantages of renewable fuel use.

WFRA's real estate outreach program offers similar services to real estate professionals.



Financial report The following pages contain the financial report for the NORA for its 2022-2021 fiscal years..

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INDEPENDENT AUDITOR'S REPORT

The Board of Directors
National Oilheat Research Alliance, Inc.
Alexandria, Virginia

Opinion

We have audited the accompanying financial statements of National Oilheat Research Alliance, Inc. (the Alliance, a not-for-profit organization), which comprise the statements of financial position as of December 31, 2022 and 2021, and the related statements of activities, functional expenses, and cash flows for the years then ended, and the related notes to the financial statements.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Alliance as of December 31, 2022 and 2021, and the changes in its net assets and its cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinion

We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of the Alliance and to meet our other ethical responsibilities in accordance with the relevant ethical requirements relating to our audits. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Prior Period Financial Statements

The financial statements as of December 31, 2021, were audited by Ross, Langan & McKendree, LLP, who merged with UHY LLP as of January 1, 2023, and whose report dated September 21, 2022, expressed an unmodified opinion on those statements.

Emphasis of Matter - Adoption of New Accounting Pronouncement

As discussed in Note 10 to the financial statements, in 2022, the Alliance adopted Accounting Standards Update No. 2016-02, *Leases (Topic 842)*. Our opinion is not modified with respect to this matter.

Responsibilities of Management for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with accounting principles generally accepted in the United States of America, and for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the Alliance's ability to continue as a going concern within one year after the date that the financial statements are available to be issued.

The Board of Directors
National Oilheat Research Alliance, Inc.
Alexandria, Virginia

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with auditing standards generally accepted in the United States of America will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

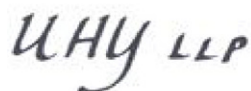
In performing an audit in accordance with auditing standards generally accepted in the United States of America, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Alliance's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about the Alliance's ability to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control related matters that we identified during the audit.

Supplementary Information

Our audits were conducted for the purpose of forming an opinion on the financial statements as a whole. The Schedules of Expenses by State/Jurisdiction on pages 17-20 for the year ended December 31, 2022, are presented for purposes of additional analysis and are not a required part of the financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the financial statements. The information has been subjected to the auditing procedures applied in the audit of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the information is fairly stated in all material respects in relation to the financial statements as a whole.



McLean, Virginia
October 11, 2023

NATIONAL OILHEAT RESEARCH ALLIANCE, INC.

STATEMENTS OF FINANCIAL POSITION
DECEMBER 31, 2022 AND 2021

ASSETS

	2022	2021
ASSETS		
Cash	\$ 9,920,538	\$ 10,082,112
Assessments receivable	2,656,113	2,697,953
Prepaid state assessments	27,293	55,928
Operating right-of-use asset	274,512	-
Cash held in escrow	5,944,434	3,815,660
Other assets	<u>73,271</u>	<u>70,375</u>
TOTAL ASSETS	<u>\$ 18,896,161</u>	<u>\$ 16,722,028</u>

LIABILITIES AND NET ASSETS

LIABILITIES

Accounts payable	\$ 221,320	\$ 145,168
Deferred contract revenue	272,052	-
Refunds payable	423,646	415,152
State grants payable	2,242,331	2,503,142
Obligation for unallocated state rebates	2,403,161	2,106,810
Operating lease liability	281,314	-
Other liabilities	<u>57,903</u>	<u>86,860</u>
Total liabilities5,901,7275,257,132

NET ASSETS

Net assets without donor restrictions available for obligation - other than for consumer education, safety, and training	263,942	181,784
Designated net assets:		
Pre-2014 reauthorization net assets	55,933	55,933
Unavailable for obligation until October 1, 2028	8,042,151	5,947,053
National spending not yet incurred:		
Research, development, and demonstration - not yet obligated	4,179,055	4,966,214
Research, development, and demonstration - obligated under contract	67,594	67,594
Heating oil efficiency and upgrade - not yet obligated	192,521	145,880
Consumer education, safety, and training - not yet obligated	<u>193,238</u>	<u>100,438</u>
Total net assets without donor restrictions	<u>12,994,434</u>	<u>11,464,896</u>

TOTAL LIABILITIES AND NET ASSETS	<u>\$ 18,896,161</u>	<u>\$ 16,722,028</u>
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NATIONAL OILHEAT RESEARCH ALLIANCE, INC.

STATEMENTS OF ACTIVITIES
FOR THE YEARS ENDED DECEMBER 31, 2022 AND 2021

	<u>2022</u>	<u>2021</u>
CHANGE IN NET ASSETS WITHOUT DONOR RESTRICTIONS		
REVENUE		
Assessments revenue, net of refunds	\$ 8,381,707	\$ 8,461,408
Other income	<u>107,300</u>	<u>61,087</u>
Total revenue8,489,0078,522,495
EXPENSES		
Program services:		
Research, development, and demonstration	2,673,141	2,466,539
Heating oil efficiency and upgrade	896,350	1,055,724
Consumer education, safety, and training	1,736,587	1,670,758
Unallocated state rebates	<u>1,178,557</u>	<u>1,255,095</u>
Total program expenses6,484,6356,448,116
Administrative costs228,570239,921
General and special projects:		
Assessment and collection costs	178,435	217,852
Annual report costs	<u>67,829</u>	<u>54,236</u>
Total general and special projects	<u>246,264</u>	<u>272,088</u>
Total expenses	<u>6,959,469</u>	<u>6,960,125</u>
CHANGE IN NET ASSETS WITHOUT DONOR RESTRICTIONS	1,529,538	1,562,370
NET ASSETS, BEGINNING OF YEAR	<u>11,464,896</u>	<u>9,902,526</u>
NET ASSETS, END OF YEAR	<u>\$ 12,994,434</u>	<u>\$ 11,464,896</u>

The accompanying notes are an integral part of these financial statements.

NATIONAL OILHEAT RESEARCH ALLIANCE, INC.

STATEMENTS OF FUNCTIONAL EXPENSES
FOR THE YEARS ENDED DECEMBER 31, 2022 AND 2021

	2022							
	PROGRAM SERVICES							
	Research, Development, and Demonstration	Heating Oil Efficiency and Upgrade	Consumer Education, Safety, and Training	Unallocated State Rebates	Total Program Services	Administrative Costs	General and Special Projects	Total 2022
Grants	\$ 959,941	\$ 869,848	\$ 1,549,387	\$ 1,178,557	\$ 4,557,733	\$ -	\$ -	\$ 4,557,733
Salaries, taxes, and benefits	827,900	24,166	35,419	-	887,485	36,350	36,711	960,546
Professional fees	669,331	1,450	150,354	-	821,135	169,594	207,640	1,198,369
Occupancy	84,180	-	-	-	84,180	2,100	-	86,280
Other expenses	131,789	886	1,427	-	134,102	20,526	1,913	156,541
TOTAL EXPENSES	<u>\$ 2,673,141</u>	<u>\$ 896,350</u>	<u>\$ 1,736,587</u>	<u>\$ 1,178,557</u>	<u>\$ 6,484,635</u>	<u>\$ 228,570</u>	<u>\$ 246,264</u>	<u>\$ 6,959,469</u>
	2021							
	PROGRAM SERVICES							
	Research, Development, and Demonstration	Heating Oil Efficiency and Upgrade	Consumer Education, Safety, and Training	Unallocated State Rebates	Total Program Services	Administrative Costs	General and Special Projects	Total 2021
Grants	\$ 1,055,573	\$ 1,000,046	\$ 1,413,359	\$ 1,255,095	\$ 4,724,073	\$ -	\$ -	\$ 4,724,073
Salaries, taxes, and benefits	697,652	46,067	37,083	-	780,802	49,508	46,646	876,956
Professional fees	518,239	7,261	217,530	-	743,030	181,163	200,826	1,125,019
Occupancy	80,921	882	672	-	82,475	873	918	84,266
Other expenses	114,154	1,468	2,114	-	117,736	8,377	23,698	149,811
TOTAL EXPENSES	<u>\$ 2,466,539</u>	<u>\$ 1,055,724</u>	<u>\$ 1,670,758</u>	<u>\$ 1,255,095</u>	<u>\$ 6,448,116</u>	<u>\$ 239,921</u>	<u>\$ 272,088</u>	<u>\$ 6,960,125</u>

The accompanying notes are an integral part of these financial statements.

NATIONAL OILHEAT RESEARCH ALLIANCE, INC.

STATEMENTS OF CASH FLOWS
FOR THE YEARS ENDED DECEMBER 31, 2022 AND 2021

	<u>2022</u>	<u>2021</u>
CASH FLOWS FROM OPERATING ACTIVITIES		
Change in net assets	\$ 1,529,538	\$ 1,562,370
Adjustments to reconcile change in net assets to net change in cash from operating activities:		
Operating lease	6,802	-
Changes in assets and liabilities:		
Assessments receivable	41,840	(163,576)
Prepaid state assessments	28,635	(55,928)
Other assets	(2,896)	42,917
Accounts payable	76,152	55,181
Deferred contract liability	272,052	-
Refunds payable	8,494	(75,454)
State grants payable	(260,811)	(669,621)
Obligation for unallocated state rebates	296,351	574,867
Other liabilities	(28,957)	5,030
NET CHANGE IN CASH AND CASH HELD IN ESCROW	1,967,200	1,275,786
CASH AND CASH HELD IN ESCROW, BEGINNING OF YEAR	<u>13,897,772</u>	<u>12,621,986</u>
CASH AND CASH HELD IN ESCROW, END OF YEAR	<u>\$ 15,864,972</u>	<u>\$ 13,897,772</u>
SUPPLEMENTAL DISCLOSURE OF NONCASH INVESTING AND FINANCING ACTIVITY:		
Noncash change in operating right-of-use asset	\$(89,623)	\$ -
Noncash change in operating lease liability	<u>\$ 86,107</u>	<u>\$ -</u>
SUPPLEMENTAL BREAKDOWN OF CASH AND CASH HELD IN ESCROW:		
Cash	\$ 9,920,538	\$ 10,082,112
Cash held in escrow	<u>5,944,434</u>	<u>3,815,660</u>
Total cash and cash held in escrow	<u>\$ 15,864,972</u>	<u>\$ 13,897,772</u>

The accompanying notes are an integral part of these financial statements.

NATIONAL OILHEAT RESEARCH ALLIANCE, INC.

NOTES TO FINANCIAL STATEMENTS

DECEMBER 31, 2022 AND 2021

NOTE 1 - THE ORGANIZATION

National Oilheat Research Alliance, Inc. (the Alliance) is a non-profit trade organization developed under *the National Oilheat Research Alliance Act of 2000* (NORA), Public Law 106-469, legislation passed by the United States Congress and signed into law in November 2000. The law was amended in 2014 under Public Law 113-79. The Alliance was created to educate consumers about the benefits of oilheat, to perform research and development, to encourage heating oil efficiency and upgrades, and to provide technical training to provide better customer service. The Alliance's Board consists of members from the oilheat industry, retail markets, wholesale distributors, public members, and representatives from the states with the highest oilheat sales. The Alliance was incorporated on January 31, 2001. Funding under the Public Law 106-469 ceased on February 6, 2010. On February 7, 2014, the Public Law 113-79 extended the provisions of Public Law 106-469 to February 6, 2019. Funding under Public Law 113-79 resumed effective April 1, 2014. On December 20, 2018, Public Law 115-334, *the Agriculture Improvement Act of 2018* was signed. Public Law 115-334 extended and modified the provisions of Public Law 113-79 to February 6, 2029.

Pursuant to Public Law 113-79, Congress established a limit on the use of assessments revenue of 30 percent for consumer education, safety, and training; a minimum of at least 30 percent of assessments revenue for research, development, and demonstration; a minimum of at least 15 percent of assessments revenue for heating oil efficiency and upgrade; and a limit on the use of assessments revenue of 5 percent for administrative costs. Beginning February 6, 2019, Public Law 115-334 increased the limit on administrative costs to 7 percent of assessments revenue. Furthermore, Public Law 115-334 requires in each calendar year beginning February 6, 2019, the Alliance may not obligate an amount greater than the sum of (1) 75 percent of the amount of assessments estimated to be collected in the calendar year; (2) 75 percent of the amount of assessments actually collected in the most recent calendar year for which an audit report has been submitted less the amount estimated in (1) above; and (3) amounts permitted in preceding calendar years to be obligated that have been obligated. The assessments collected in excess of the amounts permitted to be obligated in (1), (2), and (3) above, shall be deposited in an escrow account and be unavailable for use until October 1, 2028, when it can be used consistent with the provisions of Public Law 106-469. In the years ended December 31, 2022 and 2021, the Alliance was in compliance with these percentages. From time to time, the Alliance may receive inquiries from government agencies and other organizations, because of the nature of its funding sources. Management does not expect the result of such inquiries to impact the financial information of the Alliance.

NOTE 2 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIESBasis of Accounting

The financial statements have been prepared on the accrual basis of accounting following the Financial Accounting Standards Board (FASB) Accounting Standards Codification (ASC), which is the sole source of authoritative accounting principles generally accepted in the United States of America (GAAP). The Alliance reports information regarding its financial position and activities according to two classes of net assets: with donor restrictions and without donor restrictions.

Accounting Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that could affect certain reported amounts of assets, liabilities, revenue, and expenses, the disclosure of contingent assets and liabilities at the date of the financial statements, and functional allocations during the year. Actual results could differ from those estimates.

NATIONAL OILHEAT RESEARCH ALLIANCE, INC.

NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2022 AND 2021NOTE 2 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)Revenue RecognitionAssessments Revenue

The Public Laws 113-79 and 115-334 require wholesale distributors of No. 1 distillate and No. 2 dyed distillate to remit an assessment of two-tenths of one cent per gallon at the point of sale to the Alliance. If the No. 1 distillate or No. 2 dyed distillate is imported after the point of sale, the assessment is to be made when the product enters the United States of America. Assessments are due to be remitted to the Alliance at least quarterly based on actual sales.

Assessments Receivable

An estimate of assessments to be received, but not remitted to the Alliance as of year-end, was recognized as assessments receivable of \$2,656,113, \$2,697,953, and \$2,534,377 as of December 31, 2022, 2021, and 2020, respectively. Receivables are charged to bad debt loss as they are deemed uncollectible based upon a periodic review of the accounts. As of December 31, 2022 and 2021, no allowance for uncollectible accounts was considered necessary by management.

Refunds Payable

Under the Public Laws 113-79 and 115-334's collections rules, any dyed distillate or blends are subject to assessment. Some of this fuel is used for non-heating applications and can be refunded. Assessments revenue is presented in the accompanying statements of activities net of refunds recorded of \$1,065,987 and \$965,253 for the years ended December 31, 2022 and 2021, respectively. The Alliance recorded a refunds payable of \$423,646, \$415,152, and \$490,606 as of December 31, 2022, 2021, and 2020, respectively, for estimated refunds remaining unpaid based on historical and subsequent refunds paid.

Other Income

Other income includes contract revenue which is earned from research and development contracts with third parties and is recognized when services have been completed based on time and materials expended. Contract revenue received in advance of when service is provided is recorded as deferred contract liability and was \$272,052 as of December 31, 2022. There was no deferred contract liability as of December 31, 2021 or 2020.

Other income also includes sales of oilheat related publications that are reported net of cost of sales and are recorded at the time of shipment. Also included in other income is interest income on the Alliance's bank accounts. A detail of other income as of December 31, 2022, is as follows:

Contract revenue	\$ 77,948
Gross sales of publications	116,864
Less: cost of sales	(114,956)
Interest income	26,616
Other income	<u>828</u>
Total other income	<u>\$ 107,300</u>

NATIONAL OILHEAT RESEARCH ALLIANCE, INC.

NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2022 AND 2021NOTE 2 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)State Grants Payable and Obligation for Unallocated Rebates

Each year, the Alliance makes grants to state organizations to accomplish its mission. Grants are paid as the state organizations provide documentation of the expenditure of funds. Under Public Laws 113-79 and 115-334, the Alliance has entered into various grant agreements with state organizations, which may require periodic payment of grant funds. Grant obligations are recognized at the time the agreements are made. The outstanding grant liability by program was as follows as of December 31:

	<u>2022</u>	<u>2021</u>
Research, development, and demonstration	\$ 781,233	\$ 1,011,293
Heating oil efficiency and upgrade	367,009	343,767
Consumer education, safety, and training	<u>1,094,089</u>	<u>1,148,082</u>
Total state grants payable	2,242,331	2,503,142
Unallocated state rebates	<u>2,403,161</u>	<u>2,106,810</u>
Total state grants payable and obligation for unallocated state rebates	<u>\$ 4,645,492</u>	<u>\$ 4,609,952</u>

Functional Allocation of Expenses

The cost of providing the various programs and other activities have been presented on a functional basis in the accompanying statements of activities. Accordingly, certain costs have been allocated among the programs and supporting services benefited based on estimates of time and effort of staff.

Income Tax Status

The Alliance received a determination letter from the Internal Revenue Service (IRS) that it has been granted an exemption from federal income taxes and it qualifies under Section 501(c)(6) of the Internal Revenue Code. The Alliance believes its operations are consistent with the nature of their exemption granted by the IRS. There is no current liability for income taxes on unrelated business income and no temporary differences resulting in deferred taxes as of December 31, 2022 and 2021.

The Alliance is required to measure, recognize, present, and disclose in its financial statements uncertain income tax positions the Alliance has taken in the tax years that remain subject to examination or expects to take on an income tax return. The Alliance recognizes the tax benefits from uncertain income tax positions only if it is more likely than not the tax position will be sustained on examination by tax authorities. The Alliance recorded no liability for uncertain income tax positions for any open tax years.

NATIONAL OILHEAT RESEARCH ALLIANCE, INC.

NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2022 AND 2021NOTE 2 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)Leases

In the statement of financial position as of December 31, 2022, the Alliance recorded an operating right-of-use asset and operating lease liability, initially measured at the present value of the total lease payments using a risk-free rate that approximates the remaining lease term. The Alliance considers the likelihood of exercising renewal or termination clauses in measuring its operating right-of-use assets and operating lease liabilities. Lease costs are calculated and allocated over the lease term on a straight-line basis. Short-term leases (those with an initial term of twelve months or less and no purchase option) are expensed over their terms, with no corresponding right-of-use asset or lease liability recorded. The Alliance expenses non-lease and variable components as they are incurred.

Subsequent Events

The Alliance has evaluated subsequent events through October 11, 2023, which is the date the financial statements were available to be issued.

NOTE 3 - CONCENTRATIONS OF CREDIT RISK

The Alliance maintains cash and investments in federally insured banks and broker-managed accounts and has exposure to credit risk on those accounts. Cash held with commercial banks is insured up to Federal Deposit Insurance Corporation (FDIC) limits. As of December 31, 2022, the Alliance had \$6,661,883 cash in excess of FDIC limits. Assets held in broker-managed accounts are insured by the Securities Investor Protection Corporation (SIPC), which protects investors for up to \$500,000 including a maximum of \$250,000 for claims of cash if the brokerage firm holding the assets becomes insolvent, but it does not insure the underlying assets of \$8,931,059 as of December 31, 2022. Management does not consider this a significant concentration of credit risk.

As of December 31, 2022, 33 percent of the Alliance's accounts receivable and 36 percent of total revenue and gains/losses were from four companies.

NOTE 4 - PROGRAM SERVICES

The Public Laws 113-79 and 115-334 place requirements on how the Alliance can spend the assessments it collects. At the beginning of each year, the Alliance makes an estimate of what total assessments are anticipated to be in the coming year. Grants are made to state organizations and national campaigns are undertaken based on the estimates. Actual assessments revenue differ from the estimates and the requirements of Public Laws 113-79 and 115-334. The difference between the estimates and actual assessments are to be reflected in the grants made in future years. The law establishes strict percentage allocations for program spending and these percentages are tied to the revenue received from assessments. Management has developed procedures to ensure these percentages are reflected in budgets and carried forward as appropriate. Variances between the percentages disclosed in the program descriptions below are descriptive of the current year's operations and management believes they do not indicate non-compliance with the statute.

NATIONAL OILHEAT RESEARCH ALLIANCE, INC.

NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2022 AND 2021NOTE 4 - PROGRAM SERVICES (continued)Research, Development, and Demonstration

The Public Laws 113-79 and 115-334 require the Alliance to ensure not less than 30 percent of the assessments collected for each calendar year after the amounts required to be escrowed and not obligated until October 1, 2028, under Public Law 115-334 are used by qualified state associations or the Alliance to conduct research, development, and demonstration activities relating to oilheat fuel, including the development of energy-efficient heating systems to be placed into the marketplace. This also includes the Alliance, in conjunction with an institution or organization engaged in biofuels research, to develop consumer education materials describing the benefits of using biofuels as or in oilheat fuel based on the technical information developed.

In 2022, the Alliance granted or expended \$2,673,141 for the research, development, and demonstration program, including \$2,083,944 in national spending of past year's assessments revenue. In 2021, the Alliance Board voted to reallocate up to \$1.0 million in national spending not yet incurred for research, development, and demonstration to those states that have utilized their budgeted grants for research, development, and demonstration for additional research, development, and demonstration spending. In 2021, the Alliance granted \$307,545 in such national funds to states. The remaining amount of the \$1.0 million not spent in 2021, was reallocated in 2022 in addition to up to another \$1.0 million for grants to states that have used their research, development, and demonstration budgets. In 2022, the Alliance granted \$370,743 in such national funds to states that is included in the amounts granted or expended above. Amounts of these additional grants not spent at the end of 2022 were forfeited by states and be used for future national spending. However, subsequent to year-end, the Alliance agreed to extend this additional grant through the end of 2023. The Alliance also initially budgeted \$1,270,000 in additional national spending from 2022 assessments revenue to be spent subsequent to year-end for the research, development, and demonstration program. In response to higher net assessments revenue than budgeted, subsequent to year-end, the Alliance budgeted another \$13,143 to be spent for the research, development, and demonstration program, making the total for 2022, 30 percent of net assessments revenue after deducting the amount added to net assets unavailable for obligation until October 1, 2028. Additionally, unallocated state rebates of 2022 assessments revenue will be used for the research, development, and demonstration program.

Heating Oil Efficiency and Upgrade

The Public Laws 113-79 and 115-334 require the Alliance to ensure not less than 15 percent of the assessments collected for each calendar year after the amounts required to be escrowed and not obligated until October 1, 2028, under Public Law 115-334 are used by qualified state associations or the Alliance to carry out programs to assist consumers (i) to make cost-effective upgrades to more fuel efficient heating oil systems or otherwise make cost-effective modifications to an existing heating system to improve the efficiency of the system, (ii) to improve energy efficiency or reduce energy consumption through cost-effective energy efficiency programs for consumers, or (iii) to improve the safe operation of a heating system.

In 2022, the Alliance granted or expended \$896,350 for the heating oil efficiency and upgrade program, including \$26,502 in grants and spending of past year's assessments revenue. The Alliance also initially budgeted \$60,000 in additional national spending from 2022 assessments revenue to be spent subsequent to year-end for the heating oil efficiency and upgrade program. In response to higher net assessments revenue than budgeted, subsequent to year-end, the Alliance budgeted another \$13,143 to be spent for the heating oil efficiency and upgrade program, making the total for 2022, 15 percent of net assessments revenue after deducting the amount added to net assets unavailable for obligation until October 1, 2028. Additionally, unallocated state rebates of 2022 assessments revenue will be used for the heating oil efficiency and upgrade program.

NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2022 AND 2021

NOTE 4 - PROGRAM SERVICES (continued)

Consumer Education, Safety, and Training

The Public Laws 113-79 and 115-334 require the Alliance to ensure not more than 30 percent of the assessments collected for each calendar year after the amounts required to be escrowed and not obligated until October 1, 2028, under Public Law 115-334 are used (i) to conduct consumer education activities relating to oilheat fuel, including providing information to consumers on energy conservation strategies, safety, new technologies that reduce consumption or improve safety and comfort, the use of biofuel blends, and federal, state, and local programs designed to assist oilheat fuel consumers, (ii) to conduct worker safety and training activities relating to oilheat fuel, including energy efficiency training, (iii) to carry out other activities recommended by the Secretary of Energy, or (iv) to establish a data collection process to track equipment, service, and related safety issues to develop measures to improve safety.

In 2022, the Alliance granted or expended \$1,736,587 for the consumer education, safety, and training program, including \$100,438 in grants and spending of past year's assessments revenue. The Alliance also budgeted \$280,000 in additional national spending from 2022 assessments revenue for the consumer education, safety, and training program, of which \$193,238 remained unspent as of December 31, 2022, making the total for 2022, 29 percent of net assessments revenue after deducting the amount added to net assets unavailable for obligation until October 1, 2028.

Unallocated State Rebates

In addition to the specific program commitments discussed previously, the Alliance has committed \$1,178,557, which is 19 percent of net 2022 assessment revenue after deducting the amount added to net assets unavailable for obligation until October 1, 2028, for state rebates that have not yet been allocated to a program specified in Public Law 115-334. The Alliance plans to allocate these state rebates to the research, development, and demonstration and/or heating oil efficiency and upgrade programs. State organizations develop detailed plans for use of the rebates to do work under these programs. These funds will be allocated between programs in accordance with the requirements of Public Laws 113-79 and 115-334 as discussed previously.

NOTE 5 - ADMINISTRATIVE EXPENSE CAP

Public Law 115-334 requires the Alliance to limit expenditures for "Administrative" costs to 7 percent of revenue generated by assessment remittances net of amounts unavailable for obligation until October 1, 2028. In 2022, the Alliance expended \$228,570 for Administrative expenses, which was 4 percent of net assessments revenue after deducting the amount added to net assets unavailable for obligation until October 1, 2028, in the year ended December 31, 2022. In 2021, the Alliance expended \$239,921 for Administrative expenses, which was 4 percent of net assessments revenue in the year ended December 31, 2021. Thus, management believes the Alliance is in compliance with this provision of Public Laws 113-79 and 115-334.

NOTE 6 - ASSESSMENT AND COLLECTION COSTS

The Alliance has developed an audit system for collections compliance and has the legal authority to conduct audits to ensure member compliance. Collection costs include the costs incurred to process annual assessments, to publicize the collection system, and to ascertain compliance as stipulated by Public Laws 113-79 and 115-334. Assessment and collection costs were \$178,435 and \$217,852 for the years ended December 31, 2022 and 2021, respectively.

NATIONAL OILHEAT RESEARCH ALLIANCE, INC.

NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2022 AND 2021NOTE 7 - FINANCIAL ASSETS AND LIQUIDITY

Financial assets available within one year for operations that are not subject to restrictions that make them unavailable for general operations as of December 31, were as follows:

	<u>2022</u>	<u>2021</u>
Cash, except cash held in escrow	\$ 9,920,538	\$ 10,082,112
Assessments receivable due within one year	2,656,113	2,697,953
Prepaid state assessments	27,293	55,928
Other assets	16,683	33,367
Less: state grants payable	(2,242,331)	(2,503,142)
Less: obligation for unallocated state rebates	(2,403,161)	(2,106,810)
Less: amounts to be transferred to escrow	(2,097,717)	(2,131,393)
Less: designated net assets for national spending not yet incurred	<u>(4,632,408)</u>	<u>(5,280,126)</u>
Total financial assets available within one year for operations	<u>\$ 1,245,010</u>	<u>\$ 847,889</u>

The Alliance has a budgetary process to develop estimates and make grant payables to comply with Public Laws 113-79 and 115-334. Liquid assets are maintained in cash accounts to minimize risk of loss.

NOTE 8 - LEASE COMMITMENTS

The Alliance has an operating lease agreement for a liquid fuels research center. Total rent expense under the lease was \$95,373 and \$94,582 for the years ended December 31, 2022 and 2021, respectively. The Alliance shared \$23,843 and \$21,904, respectively, of the rent with a state agency and that is therefore included in grants in the accompanying statements of functional expenses. The remainder is included in occupancy in the accompanying statements of functional expenses. The Alliance extended the lease through December 31, 2025. The remaining weighted-average lease term is 36 months. The lease contains an option for a second renewal term through December 31, 2030, that has not been exercised and is not considered reasonably certain. The Alliance has recorded an operating right-of-use asset of \$274,512 and an operating lease liability of \$281,314 as of December 31, 2022, based on a weighted-average discount rate of 1.37 percent. The Alliance also had a month-to-month lease for its office space that was terminated in 2021 and transitioned to a mail service agreement.

Future minimum lease payments are as follows for the years ending December 31:

2023	\$ 92,428
2024	95,200
2025	<u>98,056</u>
Undiscounted future cash flows	285,684
Less: discount to present value	<u>(4,370)</u>
Total lease liability	<u>\$ 281,314</u>

NATIONAL OILHEAT RESEARCH ALLIANCE, INC.

NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2022 AND 2021NOTE 9 - NET ASSETSPre-2014 Reauthorization Designated Net Assets

As discussed previously, Public Law 113-79 became effective April 1, 2014. The Alliance designated the remaining net assets under the former Public Law 106-469 for use in a national oilheat education program. As of December 31, 2022 and 2021, \$55,933 remained unspent and are designated for future use.

National Spending Not Yet Incurred Designated Net Assets

The Alliance budgets national spending in the accomplishment of its mission under Public Laws 113-79 and 115-334. The Alliance recorded \$4,632,408 and \$5,280,126 in national spending of assessments revenue, which had not yet been incurred as of December 31, 2022 and 2021, respectively. The Alliance has designated net assets in these amounts for future program spending, some of which, the Alliance has approved contracts to expend.

Net Assets Available for Obligation - Other Than For Consumer Education, Safety, and Training

The amount reported as net assets without donor restrictions available for obligation - other than for consumer education, safety, and training are the net amounts available for future obligation for all purposes other than consumer education, safety, and training, since Public Laws 113-79 and 115-334 have placed limits on the use of assessments revenue from consumer education, safety, and training.

Net Assets Unavailable for Obligation Until October 1, 2028

Public Law 115-334 established a requirement that funds be maintained in escrow and be unavailable for use until October 1, 2028. Net assets unavailable for obligation until October 1, 2028, is an accumulation of these net assets plus interest. The Alliance makes contributions annually to the escrow for the prior year's assessments after the conclusion of the audit.

The following is a detail of amounts unavailable for use until October 1, 2028, as of December 31:

	<u>Assessments</u>	<u>Interest</u>	<u>Total</u>
Unavailable balance, January 1, 2021	\$ 3,814,803	\$ 2,857	\$ 3,817,660
Income on escrow	-	261	261
Assessments	<u>2,129,132</u>	<u>-</u>	<u>2,129,132</u>
Unavailable balance, December 31, 2021	5,943,935	3,118	5,947,053
Income on escrow	-	380	380
Assessments	<u>2,094,718</u>	<u>-</u>	<u>2,094,718</u>
Unavailable balance, December 31, 2022	<u>\$ 8,038,653</u>	<u>\$ 3,498</u>	8,042,151
Cash held in escrow account, December 31, 2022			<u>5,944,434</u>
Amount to be deposited in escrow after year-end			<u>\$ 2,097,717</u>

NATIONAL OILHEAT RESEARCH ALLIANCE, INC.

NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2022 AND 2021NOTE 10 - ADOPTION OF NEW ACCOUNTING PRONOUNCEMENT

The Alliance implemented Accounting Standards Update (ASU) No. 2016-02, *Leases (Topic 842)*. This guidance is intended to increase transparency and comparability among organizations by recognizing lease assets and lease liabilities on the statement of financial position and disclosing key information about leasing arrangements. ASU No. 2016-02 requires lessees to report a right-of-use asset along with a lease liability.

The Alliance adopted ASU No. 2016-02 as of January 1, 2022, and, as a result, the statement of financial position as of December 31, 2022, includes an operating right-of-use asset and an operating lease liability, which are not reflected in the statement of financial position as of December 31, 2021. The Alliance recorded an operating right-of-use asset and operating lease liability of \$364,136 and \$367,421, respectively, as of January 1, 2022. There was no effect on the beginning net assets from the implementation of this standard.

The Alliance elected to apply all practical expedients available under the ASU, allowing it to (1) not reassess whether any expired or existing contracts previously assessed as not containing leases are, or contain, leases, (2) not reassess the lease classification for any expired or existing leases, (3) not reassess initial direct costs for any existing leases, and (4) to use hindsight in determining the lease term.

NATIONAL OILHEAT RESEARCH ALLIANCE, INC.

SUPPLEMENTAL SCHEDULE OF EXPENSES BY STATE/JURISDICTION -
RESEARCH, DEVELOPMENT, AND DEMONSTRATION
FOR THE YEAR ENDED DECEMBER 31, 2022

	Initial Amounts Granted in 2022	Additional Amounts Expended From National Budget	Total
STATE GRANTS:			
Connecticut	\$ 81,369	\$ -	\$ 81,369
Indiana	263	-	263
Kentucky	1,527	3,617	5,144
Maine	42,957	28,381	71,338
MAPDA (Delaware, Maryland, and Washington, D.C.)	20,720	22,255	42,975
Massachusetts	70,989	38,092	109,081
Michigan	3,497	-	3,497
Nevada	174	-	174
New Hampshire	27,926	8,182	36,108
New Jersey	33,686	-	33,686
New York:			
UNYEA	32,265	28,793	61,058
HVOEC	19,359	-	19,359
NYSEC	77,437	4,007	81,444
North Carolina	13,620	39,210	52,830
Ohio	13,722	-	13,722
Pennsylvania	82,394	142,131	224,525
Rhode Island	24,320	-	24,320
South Carolina	5,202	8,282	13,484
Virginia	13,914	36,441	50,355
Vermont	13,584	11,352	24,936
Washington	2,976	-	2,976
Wisconsin	7,297	-	7,297
Total State Grant Expense	<u>\$ 589,198</u>	<u>\$ 370,743</u>	959,941
NATIONAL SPENDING IN 2022			<u>1,713,200</u>
TOTAL 2022 EXPENSE			<u>\$ 2,673,141</u>
2022 NATIONAL BUDGET NOT YET SPENT			<u>\$ 1,296,784</u>

In addition to these amounts, the unallocated state rebates detailed in the accompanying supplemental schedule of expenses by state/jurisdiction - unallocated state rebates will be used for either this program or for the heating oil efficiency and upgrade program.

NATIONAL OILHEAT RESEARCH ALLIANCE, INC.

SUPPLEMENTAL SCHEDULE OF EXPENSES BY STATE/JURISDICTION -
HEATING OIL EFFICIENCY AND UPGRADE
FOR THE YEAR ENDED DECEMBER 31, 2022

	Amounts Granted in 2022	
STATE GRANTS:		
Connecticut	\$ 120,025	
Indiana	388	
Kentucky	2,253	
Maine	63,365	
MAPDA (Delaware, Maryland, and Washington, D.C.)	30,564	
Massachusetts	104,713	
Michigan	5,159	
Nevada	256	
New Hampshire	41,194	
New Jersey	49,688	
New York:		
UNYEA	47,593	
HVOEC	28,556	
NYSEC	114,224	
North Carolina	20,093	
Ohio	20,241	
Pennsylvania	122,271	
Rhode Island	35,875	
South Carolina	7,674	
Virginia	20,524	
Vermont	20,038	
Washington	4,390	
Wisconsin	<u>10,764</u>	
Total State Grant Expense		\$ 869,848
NATIONAL SPENDING IN 2022		<u>26,502</u>
TOTAL 2022 EXPENSE		<u>\$ 896,350</u>
2022 NATIONAL BUDGET NOT YET SPENT		<u>\$ 73,143</u>

In addition to these amounts, the unallocated state rebates detailed in the accompanying supplemental schedule of expenses by state/jurisdiction - unallocated state rebates will be used for either this program or for the research, development, and demonstration program.

NATIONAL OILHEAT RESEARCH ALLIANCE, INC.

SUPPLEMENTAL SCHEDULE OF EXPENSES BY STATE/JURISDICTION -
CONSUMER EDUCATION, SAFETY, AND TRAINING
FOR THE YEAR ENDED DECEMBER 31, 2022

	Amounts Granted in 2022
STATE GRANTS:	
Connecticut	\$ 217,973
Indiana	704
Kentucky	4,092
Maine	115,075
MAPDA (Delaware, Maryland, and Washington, D.C.)	55,506
Massachusetts	190,166
Michigan	9,368
Nevada	465
New Hampshire	74,810
New Jersey	90,237
New York:	
UNYEA	86,432
HVOEC	51,859
NYSEC	207,438
North Carolina	6,181
Ohio	36,758
Pennsylvania	222,056
Rhode Island	65,150
South Carolina	13,937
Virginia	37,272
Vermont	36,389
Washington	7,972
Wisconsin	<u>19,547</u>
Total State Grant Expense	\$ 1,549,387
NATIONAL SPENDING IN 2022	<u>187,200</u>
TOTAL 2022 EXPENSE	<u>\$ 1,736,587</u>
2022 NATIONAL BUDGET NOT YET SPENT	<u>\$ 193,238</u>

NATIONAL OILHEAT RESEARCH ALLIANCE, INC.

SUPPLEMENTAL SCHEDULE OF EXPENSES BY STATE/JURISDICTION -
UNALLOCATED STATE REBATES
FOR THE YEAR ENDED DECEMBER 31, 2022

	Amounts Granted in 2022
UNALLOCATED STATE REBATES:	
Connecticut	\$ 158,440
Indiana	512
Kentucky	2,974
Maine	83,645
MAPDA (Delaware, Maryland, and Washington, D.C.)	40,346
Massachusetts	138,227
Michigan	6,809
Nevada	338
New Hampshire	54,377
New Jersey	65,592
New York:	
UNYEA	62,826
HVOEC	37,695
NYSEC	150,783
North Carolina	56,835
Ohio	26,719
Pennsylvania	161,408
Rhode Island	47,356
South Carolina	10,130
Virginia	27,092
Vermont	26,450
Washington	5,795
Wisconsin	<u>14,208</u>
TOTAL 2022 EXPENSE	<u>\$ 1,178,557</u>

These unallocated state rebates will be allocated to either the research, development, and demonstration or the heating oil efficiency and upgrade programs based on detailed plans for use of the rebates to be submitted by the states.

NORA was authorized by Congress in 2000 to generate funding, from within the liquid heating fuel industry, allowing more efficient and more reliable heat and hot water to American consumers. NORA's efforts focus on Energy Efficiency, Environmental Responsibility, Safety, Research & Development and Professional Education, with particular emphasis on transitioning heating oil and its appliances to a low-carbon source of heat and hot water.

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