



Providing Renewable Liquid Heating Solutions  
for a Low Carbon Future

The Future of Liquid Heating Workshop  
10-25-22



## NORA 101

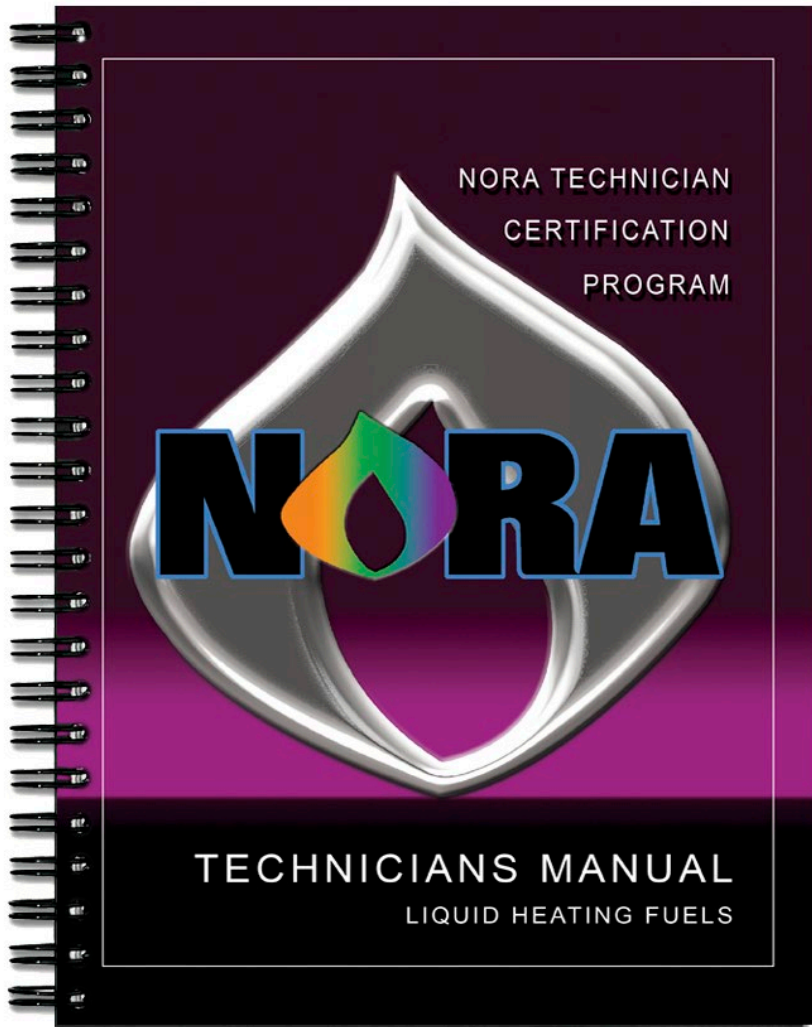
- NORA Check Off program - \$.002 cpg of every HO gallon sold
- Re-Authorization through Feb-29 / GT Thompson Chair of AG Committee
- Research & Development – Minimum 30% of budget
- Consumer Education Programs – Maximum 30% of budget
- Energy Efficiency – Minimum 15% of budget
- Rebates – Minimum 15% of budget
- ***Total States Spending in 2022 = \$5,496,945***

# NEW RELEASE!!

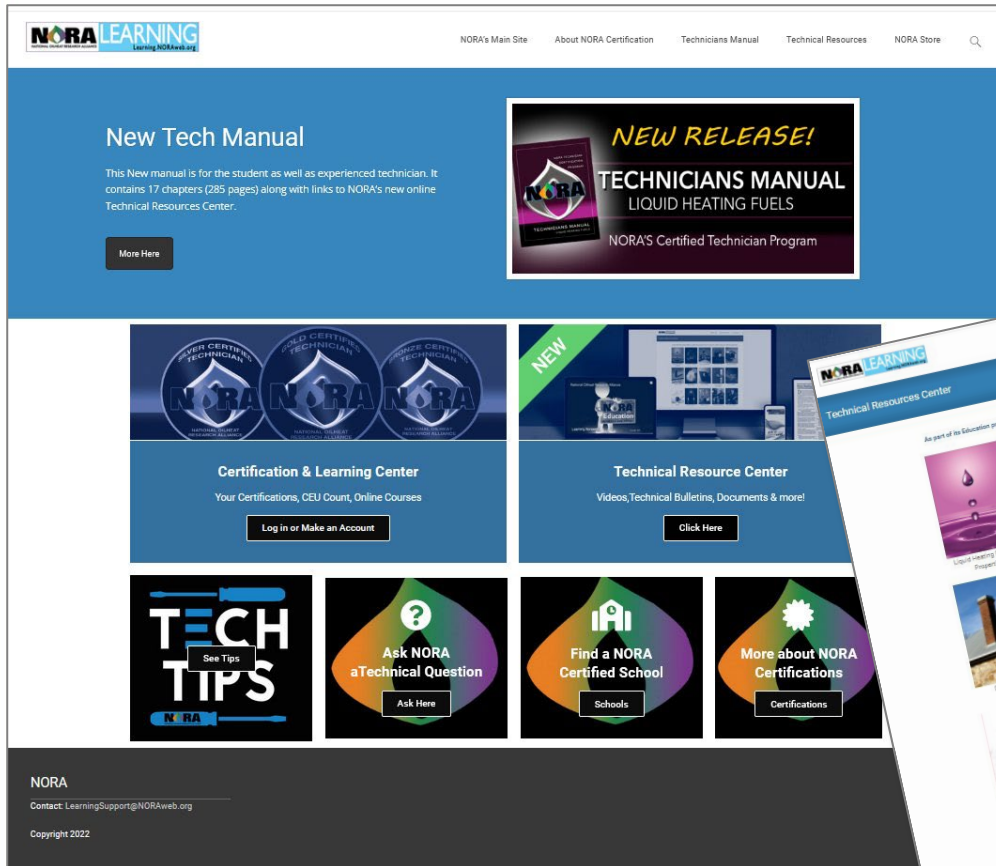
## *Technicians Manual for Liquid Heating Fuels.*

This 2022 manual is designed for the student as well as experienced technician and contains 17 chapters (285 pages) along with links to NORA's new online [Technical Resources Center](#) where you can find additional documents, technical bulletins & videos.

- Liquid Heating Fuels & its Properties
- Introduction to Burners
- Storage Tanks & Piping
- Nozzles & Combustion Chambers
- Draft & Venting
- Combustion
- Basic Electricity
- Limit Controls & Thermostats
- Primary Controls
- Motors
- Ignition Systems
- Heating Systems
- Annual Maintenance
- Service Procedures
- Energy Conservation
- Customer Service



# Certification & Technical Resource Center

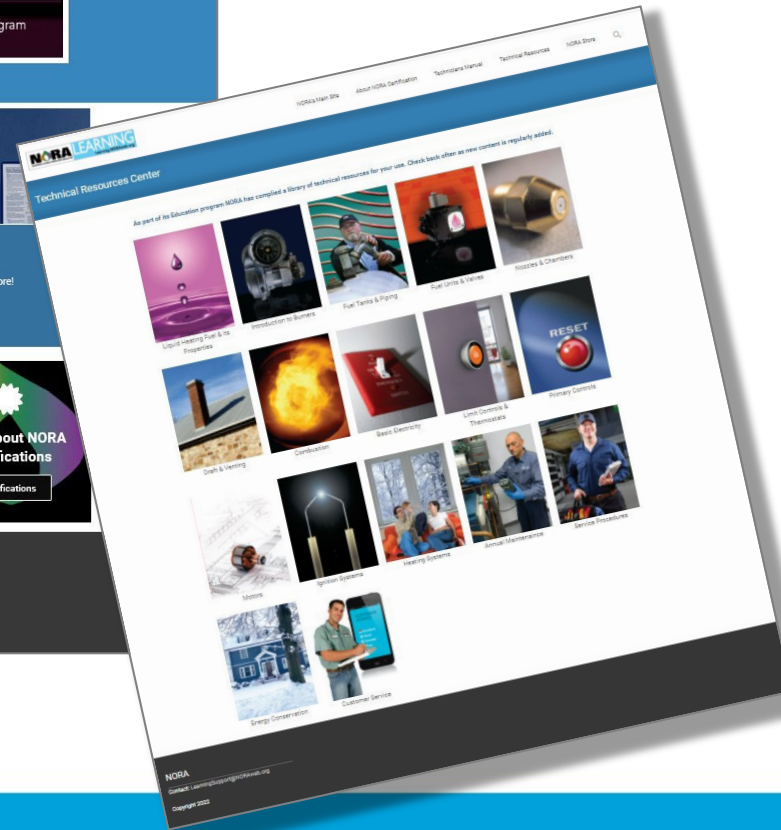


- Manage Certifications & continuing education
- Access NORA's New Technical Resource Center

Categorized by subject, area you can find videos, documents, manuals and technical bulletins.

All carefully selected by NORA for accuracy and ease of use.

Visit often as new material will be added as it becomes available.



# Some of Our Current Research and Development Projects to Utilize Low Carbon Fuels

- B50 and B100 Testing
- Zero Carbon Home
- GHG Calculator Project
- Renewable Fuels Combustion Testing
- Impacts and potential for renewable diesel Blends
- Biodiesel – field performance with pour point depressants
- UL B0 - B100 Burner Protocol for Listing





- *NORA Board of Directors earmarked \$2 Million towards State R&D programs*
- *Spend the money, keep our base in liquid heating*
- *Building towards a renewable future*

## NORA States Rebates Program

- Research & Development – Boilers, Furnaces, Burners, Thermostats etc.
- Energy Efficiency – Replacement Tanks, Boilers, Furnaces, Burners, Thermostats etc.
- Rebates - Replacement Tanks, Boilers, Furnaces, Burners, Thermostats etc.
- Additional states proportional R&D allocations of 2 million dollars

# Increases and expands IRS Section 25C tax credits for home efficiency improvements through 2031 (Sec. 13301)

- The consumer would receive \$600 dollars if the unit is placed into service after December 31, 2022, and before January 1, 2027, meets or exceeds 2021 *Energy Star* efficiency criteria, and is rated by the OEM for use with at least 20% biofuel blends
- The consumer would receive \$600 dollars if the unit is placed into service after December 31, 2026, achieves at least 90 AFUE, and is rated by the OEM for use with at least 50% biofuel blends



# Thank you!

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