AGENDA

Board of Directors

October 2, 2014

530-881-1212, Caller ID 374-542-301

- I. Introductions and Opening Remarks
 - a) Special Guest Ed Newberry
- II. Approval of Minutes
- III. Executive Committee and Leadership in 2015
- IV. Review of Financials for August
- V. Status of Budget
- VI. Education Issues

NORA Gold Program

NORAED Website Development

- VIII. Consumer Education
- IX. Research and Development

Liquid Fuels Research Center

Program Opportunity Notice

- X. Energy Efficiency Program
- XI. Next Board Meeting

NORA Board of Directors

Greg Anderson Roger Marran Anderson Farm Energy Kinetics, Inc Christopher Daly Peter Aziz Suburban Propane, L.P. Steve McCracken Bantan Fuel Amerigreen Eric Degesero Tom Barron Fuel Merchants Association of David Neill C. Barron & Sons, Inc MJ Neill, Inc. Sam Bell Tom Devine Edward Noonan Verde Bio Fuels Devine Brothers,.Inc Noonan Energy Corp Lori Bergg Tom Devino Mark Petrunis Midwest Fuels Mercury Fuel A.J. Petrunis Inc. **Bob Blanchard** Carla Romita Castle Dan Donovan Irving Oil Peroleum Heat & Power Oil Corporation Rick Bologna Mark Fitz Ken Russ Westmore Fuel CO. Star Oil Co. Tri Gas and Oil Company **Bob Boltz** Tom Flaherty Stephen Sack Vincent R. Boltz, Inc. Bruce Harris Harris Comfort Sack Distributors, Corp. LLC. Al Breda Tom Santa Sippin Energy Allison Heaney Santa Energy Energy Conservation Group LLC Walter Brickowski Susan Santopietro Baribalut Oil Co. Gulf Oil LP Bob Hedden OilHeat Manufacturer's Association Jim Buhrmaster Steve Schooley Global Petroleum Buhrmaster Energy Group Michael Januario Sunshine Oil Co. Thomas Butcher Ed Scott Brookhaven National Laboratory Scott Oil

Miller Charles Miller Oil Co.

Kate Childs Tuxis-Ohrs Fuel

Steve Clark

Genesee Fuel & Heating

John Combs Southern Maryland Oil

Sean Cota Cota & Cota Inc

Mr. Joe Phillips Creedmoor Fuel Service

Jeff Jenkins Jenkins Fuel Oil Co.

Nancy Kister O & P Oil & Gas, Inc

Barry Knox

REG Energy Services, LLC

Quincy Longacre Buckeye Energy Services, LLC.

Jeff Lykins

John Maniscalco New York Oil Heating

Lykins Oil Company

Association

Daniel Singer Robison Oil

Charles Stafford Stafford Oil Co.

Charles Uglietto Cubby Oil Co.

Gene Waldman Duck Island Terminal, Inc.

Jeff Witham Withams Sales & Services

Minutes

April 30, 2014, 12 p.m. Eastern Time

Conference call number: 855-212-0212; Meeting id: 374-542-301

I. Introductions

Mr. Edward Noonan called the meeting to order at 12:08 am EST and directed Mr. John Huber to call the roll. Mr. Huber called the roll and the following members of the Board were Present.

Ed Scott

Bruce Harris

Greg Anderson

Steve Schooley

Al Breda

Dan Donovan

Daniel Singer

Mark Fitz

Michael Januario

Peter Aziz

Carla Romita

Charles Stafford

Chris Daly

David Neil

Thomas Butcher

Ed Noonan

Eric Degesero

Mark Petrunis

Mike Neish

Nancy Kister

Steve McCracken

Sam Bell

Robert Boltz

Steve Clark

Sean Cota

Tom Flaherty

Allison Heaney

Jeff Jenkins

Barry Knox

Quincy Longacre

Roger Marran

After calling roll, Mr. Huber indicated a quorum was present.

II. Minutes

A motion was made to approve the minutes of the meeting held on October 16, 2013. The motion was moved by Mr. Sean Cota duly seconded by Mr. Mike Neish and approved by voice.

III. Year End Financials 2013 and State Reports

Mr. John Maniscalco, Treasurer, presented NORA's financial statements for the calendar year ending December 31, 2013. In regard to the Statement of Activities Mr. Maniscalco noted that Total Grants and State Rebates amounted to \$348,382, with Total Operating Expenses to date totaling \$428,406. After factoring in Total Other Income of \$863,248 NORA ended 2013 with an Increase in Net Assets of \$86,460.

Addressing the Statement of Financial Position; NORA has \$1,911,871 in Total Assets offset by Total Current Liabilities of \$1,162,523, with the overall majority of that liability being \$1,212,134 in State Rebate Obligations. NORA ended the year with Total Net Assets of \$749,348 allowing NORA to continue its present rate of activity through 2014 as NORA awaits 2nd, 3rd and 4th quarter receipts from the collection of assessments.

A motion to accept this report was made by Mr. Barry Knox, and duly seconded by Ms. Allison Heaney. After discussion, the motion was adopted.

IV. Review of Statute

Mr. John Huber discussed the NORA statute and the changes that resulted from reauthorization. In 2009 there was a GAO audit and in response to that, the NORA statute was modified to respond to the audit and review. One of the changes that he discussed is how members are now appointed to the Board of Directors. Previously, NAORE nominated people to sit on the board for a term not to exceed three years. Under the new statute; states will nominate candidates, those nominations are then submitted to the Department of Energy (DOE). At that time DOE, has 60 days to comment and if they do not comment, those nominees are then accepted to the Board of Directors as an active member in good standing.

Three main categories of NORA are Consumer Education, Education and Training and Research and Development. Under the new law, NORA is required to use 30 percent of the budget to enhance Research and Development efforts. NORA is working to have a physical lab and make Research and Development one of the core elements within the organization.

Under the new statute NORA will now have biennial budgets (every two years). Once the budget is created it will be placed online for 30 days to allow for public comment. After that time passes it will be sent to DOE for a period of 90 days. NORA is working to have a new budget by July 1, 2014. The new budget will take effect in the fall.

For states receiving NORA funds, NORA will pay vendors directly under the new statue. Mr. John Huber explained that NORA will not disburse funds to states to allow them to make payments moving forward; this will allow NORA to keep track within the accounting system to make sure that monies are being spent appropriately on NORA projects.

Mr. Huber discussed the heating oil efficiency and a new upgrade program. NORA will work with the states to develop the program. There are several different options. Mr. Huber discussed the different states and the challenges that will arise. NORA is looking for dealers to assist with this effort and there are several different options for this on a regional level. This is not a low income based program.

Education and Training as well as Consumer Education is capped at 30 percent of the budget.

Mr. John Huber discussed compliance and the role that it plays within the new statute. There is a lobbying restriction and the definition is much more defined then it was previously. NORA can give comments and answer questions asked from legislative bodies.

The auditor will be required to verify states activities and the administrative review. If we are not in compliance that will go on the website and NORA can be audited. There was general discussion about the review and Mr. Sean Cota asked, "Who will be responsible for paying for that?" Mr. Huber stated that it will come out of the central budget.

Mr. Ed Noonan stated that under the new statue it is a lot stricter and NORA is responsible for being in compliance with the new regulations.

Mr. Sean Cota asked general questions about the statute. Mr. Huber discussed the central office and how the money would be spent at that level.

Mr. John Huber wants the Board of Directors and the Executive Committee to come up with approved expenses and programs for Education and Training. Mr. John Huber stated that a code book can be put together and the state would fill out a form that states what code they needed to use and for what program. This would allow for compliance assurance.

Mr. John Huber discussed proposed section 10.10.4 which state that NORA states that haven't used their grant funds within two years, NORA would then create a program on behalf of that state. At that point, NORA would ensure that states have up-to-date education efforts that are and moving forward. He also made it clear that state funds cannot be used for other states, just the state in which the funds were allocated.

Mr. Neish asked about the cap that was on state grants previously and how those funds may be used. Mr. Huber discussed that currently things will be done according to new statute in order to have quality control and accountability for state funds. However, there are no percentage limits on existing funds.

Research & Development will still be done centrally at NORA and it will come out of the central budget.

Motion to approve the new regulations was made by Mr. Eric DeGesero, seconded by Mr. Robert Boltz and duly approved by voice.

V. Statute and Budgetary Items

Mr. Huber discussed the Research and Development projects that NORA plans to lead under the new statute. He stated that a top priority for NORA is working on transitioning projects to new technology, new energy efficient equipment and safety in the home. NORA will help facilitate that in conjunction with partners.

Mr. Huber discussed the new budgetary changes and examples of how the new budget is supposed to be used in regards to Consumer Education. Under the new statute Biofuel will play a bigger role in the program. Mr. Huber introduced Mr. Greg Anderson who is part of the Soybean Association. NORA will work closely with Mr. Anderson on projects related to Biofuel.

VII. State Association Activities and Budgeting

Mr. Huber discussed that the new rebate request will be available online that will allow states to file for payment, and that it would be available for everyone to review

Motion to accept the two reports was made by Ms. Allison Heaney, second Mr. Jeff Jenkins. It was approved by voice vote.

VIII. Draft Proposed Budget

"In relation to the Finance Committee's Proposed 2014 Budget; NORA's estimated Total Income for the 2nd, 3rd and 4th quarters of 2014, after Collection Costs, Sales and Other Revenue, amounts to \$5,175,000.

Estimated total Program Expenses encompassing Consumer Education; Education and Training; Research Development and Demonstration; Home Energy Efficiency Programs and State Rebates amount to \$4,892,000. It's estimated that \$1,700,000 of that amount will be retained by NORA Central for nationwide, state participant expenditures. The anticipated remaining amount \$3,192,000 should be rebated back to the NORA state participants for intrastate activities in accordance with the Act.

The remaining amount of \$283,000 will be utilized for Office Unallocated and Other Expenses.

The same financial formula by like percentage, unless altered by the Board, will be implemented for the full calendar year of 2015.

The floor was opened up for comments and discussion and Ms. Allison Heaney stated that she wants the Board of Directors to have some of the activities described as consumer education would be better characterized as a central budget expenseThe Board of Directors agreed and a made an amendment to review Ms. Allison Heaney's proposed change about things being developed on a central level.

There was a general discussion about the proposed budget and Mr. Huber stated that by July 1st the Executive Committee plans to have the budget completed and posted by July 1st, sent to DOE for review by August 1st.

Motion to approve the proposed budget with Ms. Allison Heaney's amendment, motion made Mr. Robert Boltz and seconded by Mr. Eric DeGesero approved by voice.

A motion to accept this report was made by Mr. Sean Cota, and duly seconded by Mr. Roger Marran. After discussion, the motion was adopted."

IX. Research and Development

Mr. John Huber discussed the new Research & Development efforts that NORA will be undertaking under the new statue. The reauthorization of NORA presents a rare opportunity to create a new liquid fuel R&D program that can help the industry maintain a competitive position far into the future. It is critical, however, that the topics and research investments be well planned. NORA will be hosting a workshop at Brookhaven National Lab on June 3 and 4, 2014 where the details of the new NORA program, industry market state, and preliminary ideas for R&D themes, as well as thoughts about the management of NORA R&D projects will be discussed. Attendees will be asked to actively participate in steering the R&D topics, priorities, and research management plans.

Mr. Huber stated that there has been difficulty in the past regarding Research & Development topics/ideas and that moving forward under the new statue he would like to have a Research & Development agenda. He stated that all the projects that are currently underway are close to completion and NORA wants to plan where monies will be used on future projects.

New projects will be based on current (#2) and future (ULSD) fuel quality, renewable fuels research, controls, heating systems, deployment, resiliency, combustion and future concepts. Mr. Cota stated that he would like to see Research & Development efforts go towards testing the

level of biofuels for environmental impact. Dr. Butcher discussed that biofuels field samples are currently being tested.

X. Education and Training

Mr. Huber discussed that the NORA Silver book will be reviewed for any updates and changes that need to be made to correlate with changing technologies.

Mr. Huber also discussed the reevaluation of the NORA Gold program. NORA is currently working with the Organization for Energy Service Professionals (OESP) to revamp its Gold Program to better reflect the needs of the advanced service professionals in the industry and to ensure that our training was relevant to the oilheating companies and serviced the needs of oilheat consumers.

The initial meeting of NORA/OESP representatives was held on January 30th in Baltimore, Maryland. At that meeting it was decided that the new gold program will include six different topics and a silver certified service technician will need to successfully complete four of the six topics to advance to become a gold certified service technician. The new topics include: advanced control, air distribution and warm air heating, energy conservation, hydronics, steam and venting.

The goal is to make sure the new Gold program focuses on a variety technical skills of service professionals. NORA hopes to introduce the new program in spring 2015.

VII. Old Business

NONE

VIII. New Business

Mr. Huber indicated that October 15th is the tentative date for the next board meeting.

IX. Adjournment

Mr. Edward Noonan called for the meeting to be adjourned at 1:41 p.m. EST.

2015 Executive Committee

Must have 13 Members

6 Retailers, 2 Wholesalers, 1 Public Member

Ed Noonan (2015), Chairman

Mark Fitz (2016) eligible for 2nd term

Roger Marran (2014), eligible for 2nd term

Steve Schooley (2016) eligible for 2nd term

Eric Degesero (2014) eligible for 2nd term

Sean Cota (2014)

Jim Townsend (Ex Officio)

Dan Donovan (2016) eligible for 2nd term

Jeff Lykins (2014) eligible for 2nd term

Bob Boltz (2014)

Jeff Jenkins (2014) eligible for 2nd term

Jim Buhrmaster (2014)

Mike Neish (2015)

Allison Heaney (2016) eligible for 2nd term

Peter Aziz (2016) eligible for 2nd term

John Maniscalco (Ex Officio)

Steve Clark 2016) eligible for 2nd term

Tom Santa (2016) eligible for 2nd term

National Oilheat Research Alliance Statement of Activities For the Eight Months Ending August 31, 2014

_	Jan-Mar 2014	April-August 2014	YTD 2014	2014 YTD Budget
INCOME				
Collections and Assessments Remittance Revenue Less Refunds Accrual Less: Assessments and Collection Costs	\$0.00 0.00 0.00 (15,282.32)	\$1,780,509.88 (175,101.92) 237,450.04 (100,165.87)	\$1,780,509.88 (175,101.92) 237,450.04 (115,448.19)	\$0.00 0.00 1,842,858.00 (46,668.00)
Net Collections	(15,282.32)	1,742,692.13	1,727,409.81	1,796,190.00
In Kind Contributions Sales Net Revenue (Tech Sales) Other Revenue (Grants, etc)	4,982.47 24,931.19	20,182.00 184.03	25,164.47 25,115.22	6,664.00 18,004.00
Total Income	14,631.34	1,763,058.16	1,777,689.50	1,820,858.00
PROGRAM EXPENSES				
Education and Training (Central) Education and Training (States)	5,625.00 0.00	50,795.88 0.00	56,420.88 0.00	166,666.65 626,111.10
Total Education and Training	5,625.00	50,795.88	56,420.88	792,777.75
Total Consumer Education and Training (Max. 30%)	5,625.00	50,795.88	56,420.88	792,777.75
Research Development and Demonstration (Central) Research Development and Demonstration (States)	77,033.40 0.00	115,396.55 0.00	192,429.95 0.00	722,222.20 126,111.10
Research Development and Demonstration (Min. 30%	77,033.40	115,396.55	192,429.95	848,333.30
Home Energy Efficiency Program (Central) Home Energy Efficiency Program (States)	0.00 0.00	6,957.70 0.00	6,957.70 0.00	55,555.55 368,611.10
Home Energy Efficiency Program (Min. 15%)	$\theta.\theta\theta$	6,957.70	6,957.70	424,166.65
State Rebates	24,475.00	3,762.50	28,237.50	649,664.00
Office Unallocated Expenses SALARIES SS/FICA/OTHER PAYROLL TAXES 401(K) MEETING & TRAVEL EXPENSES OFFICE SUPPLIES WEB SITE ANNUAL REPORT DUES & MEMBERSHIPS POSTAGE RENT & TELEPHONE INSURANCE BANK FEES LEGAL EXPENSE DEPRECIATION AND AMORTIZATION	68,371.79 5,350.52 4,800.00 2,516.45 179.31 177.85 0.00 0.00 17.13 4,597.52 2,845.30 570.60 0.00 19.74	6,011.52 389.57 448.00 10,285.97 1,398.00 3,315.64 0.00 459.00 218.00 8,485.82 7,767.31 1,306.26 14,568.00 (0.33)	74,383.31 5,740.09 5,248.00 12,802.42 1,577.31 3,493.49 0.00 459.00 235.13 13,083.34 10,612.61 1,876.86 14,568.00 19.41	40,000.00 13,336.00 0.00 5,555.55 0.00 66,668.00 10,000.00 3,336.00 10,000.00 6,668.00 0.00 0.00 0.00
ACCOUNTING EXPENSE EQUIPMENT MAINTENANCE	13,930.16 552.75	41,231.96 1,950.57	55,162.12 2,503.32	66,668.00 0.00
Total Unallocated Expenses	103,929.12	97,835.29	201,764.41	222,231.55
Net Revenue/(Expense)	(196,431.18)	1,488,310.24	1,291,879.06	(1,116,315.25)

National Oilheat Research Alliance Statement of Financial Position August 31, 2014

	2014
ASSETS	
CURRENT ASSETS:	
Cash and Cash Equivalents Accounts Receivable Assessments and Other Receivables Prepaid Assets Publications Inventory Reserve for Inventory Obsolescence Total Current Assets	\$2,776,109 32,994 262,344 34,284 22,341 (14,000) 3,114,072
PROPERTY AND EQUIPMENT Office Equipment	8,449
Computer Equipment	7,944
Less: Accumulated Depreciation	(16,393)
TOTAL ASSETS	\$3,114,072
LIABILITIES AND NET ASSETS	
CURRENT LIABILITIES:	
Accrued Salaries & Benefits State Rebate Obligations (Pre 2014) Accrued Expenses Total Current Liabilities	20,620 1,132,745 39,025 \$1,192,390
NET ASSETS:	
Net Assets	1,921,682
Total Net Assets	1,921,682
TOTAL LIABILITIES AND NET ASSETS	\$3,114,072

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	APPROVED	Disbursed in 2009	Disbursed in 2010	Disbursed in 2011	Disbursed in 2012	Disbursed in 2013	Disbursed in 2014	Remaining
CONNECTICUT								
E & T '10 Grant	\$188,385.68		\$188,385.68					
TOTALS FOR CONNECTICUT	188,385.68		188,385.68					
IDAHO E & T '08 Grant E & T '09 Grant 2010 - Unassigned	6,273.83 29,814.53 1,714.00	6,273.83						29,814.53 1,714.00
TOTALS FOR IDAHO	37,802.36	6,273.83						31,528.53
INDIANA 2009 - Unassigned 2010 - Unassigned CONS-ED '08 Grant E & T '08 Grant	21,434.16 4,660.00 14,620.02 6,005.27	3,507.49 9,752.79 6,005.27	3,835.25	2,705.30 1,031.98	4,081.79	3,132.84		8,006.74 4,660.00
TOTALS FOR INDIANA	46,719.45	19,265.55	3,835.25	3,737.28	4,081.79	3,132.84		12,666.74
KENTUCKY CONS-ED '09 Grant E & T' '09 Grant CONS-ED '10 Grant E & T'10 Grant	84,266.25 58,499.00 9,701.68 14,552.52	83,397.14 8,122.24	524.50 14,922.89	221.76 2,199.25	122.85 3,621.15	12,266.58	14,396.89 5,015.44	2,970.00 4,686.24 14,552.52
TOTALS FOR KENTUCKY	167,019.45	91,519.38	15,447.39	2,421.01	3,744.00	12,266.58	19,412.33	22,208.76
MASSACHUSETTS CONS-ED '09 Grant E & T '09 Grant CONS-ED '10 Grant E & T '10 Grant	881,900.87 181,397.00 89,088.00 131,183.30	607,801.13 165,719.14	274,099.74 15,677.86	11,083.43 120,531.25	30,001.00 7,746.00	8,644.50 3,044.88	9,252.90	30,106.17 (138.83)
TOTALS FOR MASSACHUSETT	1,283,569.17	773,520.27	289,777.60	131,614.68	37,747.00	11,689.38	9,252.90	29,967.34
MARYLAND (MID-ATL) CONS-ED '09 Grant E & T '09 Grant CONS-ED '10 Grant E & T '10 Grant	337,158.65 33,910.35 56,422.00 22,981.00	147,996.31 25,000.00	145,001.43 8,910.35	44,160.91 23,039.13 2,022.32	33,382.87 2,779.63	3,287.50	800.00	14,091.55
TOTALS FOR MARYLAND	450,472.00	172,996.31	153,911.78	69,222.36	36,162.50	3,287.50	800.00	14,091.55
MAINE CONS-ED '09 Grant E & T '09 Grant CONS-ED '10 Grant E & T '10 Grant	243,000.00 299,977.77 56,230.58 74,537.00	164,066.81 201,703.68	78,933.19 98,274.09 56,230.58 74,535.42					1.58
TOTALS FOR MAINE	673,745,35	365,770.49	307,973.28					1.58

	APPROVED	Disbursed in 2009	Disbursed in 2010	Disbursed in 2011	Disbursed in 2012	Disbursed in 2013	Disbursed in 2014	Remaining
MICHIGAN CONS-ED '09 Grant E & T '09 Grant 2010 -Unassigned	\$143,766.00 128,422.00 39,126.00		\$48,766.00 5,000.00	\$40,000.00	\$25,000.00 25,000.00	\$10,000.00 30,500.00	\$1,861 00	\$18,139.00 47,922.00 39,126.00
TOTALS FOR MICHIGAN	311,314.00		53,766.00	60,000.00	50,000.00	40,500.00	1,861.00	105,187.00
NORTH CAROLINA CONS-ED '10 Grant E & T '10 Grant	70,006.02 10,460.67		70,006.02 10,460.67					
TOTALS FOR NORTH CAROLI	80,466.69		80,466.69					
NEW HAMPSHIRE CONS-ED '10 Grant E & T '10 Grant	57,928.02 13,943.01		57,928.02 13,943.01	********************************				
TOTALS FOR NEW HAMPSHI	71,871.03		71,871.03					
NEW JERSEY CONS-ED '09 Grant CONS-ED '10 Grant E & T'10 Grant	574,500.00 2,993.09 189,822.28	384,915.00	189,585.00 2,993.09 129,947.11	59,061.81				813.36
TOTALS FOR NEW JERSEY	767,315.37	384,915.00	322,525.20	59,061.81				813.36
NEVADA E & T '02 thru '08 Grants CONS-ED '07 Grant	3,573.83 6,442.86							3,573.83 6,442.86
TOTALS FOR NEVADA	10,016.69							10,016.69
OHIO CONS-ED '08 Grant CONS-ED '09 Grant E & T '09 Grant 2010 - Unassigned	151,879.31 42,958.54 100,295.57 51,066.00	82,833.80 29,131.14	44,555.06	3,035.00	20,705.45	750.00 2,535.00	1,901.16	38,522.38 75,164.43 51,066.00
TOTALS FOR OHIO	346,199.42	111,964.94	40,555.06	3,035.00	20,705.45	3,285.00	1,901.16	164,752.81
OREGON E & T'08 Grant CONS-ED '09 Grant E & T'09 Grant CONS-ED'10 Grant TOTALS FOR OREGON	2,391.90 36,454.18 2,743.86 7,465.82 49,055.76	391.86 20,071.22 359.91 20,822,99	16,382.96 4,018.21 20,401.17		(127.48) (127.48)			2,000.04 2,743.86 3,215.18 7,959.08
TOTAL STOR OR BOOK	47,033.70	20,022.99	20,401.17		(127.40)			7,737.00

	APPROVED	Disbursed in 2009	Disbursed in 2010	Disbursed in 2011	Disbursed in 2012	Disbursed in 2013	Disbursed in 2014	Remaining
PENNSYLVANIA CONS-ED '09 Grant E & T '09 Grant E & T '10 Grant	\$960,491.52 335,300.00 282,309.64	\$420,938.90 50,000.00	\$201,623.44 285,300.00	\$150,000.00 150,000.00	\$150,000.00 100,000.00			\$37,929.18 32,309.64
TOTALS FOR PENNSYLVANIA	1,578,101.16	470,938.90	486,923.44	300,000.00	250,000.00			70,238.82
RHODE ISLAND CONS-ED '09 Grant E & T '09 Grant E & T '10 Grant	143,000.00 156,228.48 63,911.26	73,914.68 68,740.00 3,000.00	69,085.32 87,488.48	60,911.26				
TOTALS FOR RHODE ISLAND	363,139.74	145,654.68	156,573.80	60,911.26				
SOUTH CAROLINA CONS-ED '09 Grant E & T '09 Grant E & T '10 Grant 2010	40,813.91 1,896.27 5,264.93	40,813.91 482.77	1,413.50					5,264.93
TOTALS FOR SOUTH CAROLI	47,975.11	41,296.68	1,413.50					5,264.93
VIRGINIA CONS-ED '08 Grant E & T '08 Grant 2009 - Unassigned 2010 - Unassigned	238,203,93 90,831,52 270,954,63 63,855.00	134,404.88 17,175.21	86,991.51 19,371.67	8,188.66 8,787.76 52,808.01	8,618.88 6,676.34 3,048.62	1,269.48 22,154.18	837.36	36,713.70 192,943.82 63,855.00
TOTALS FOR VIRGINIA	663,845.08	151,580.09	106,363.18	69,784.43	18,343.84	23,423.66	837.36	293,512.52
VERMONT R & D '07 Grant R & D '08 Grant CONS-ED '08 Grant CONS-ED '09 Grant E & T '09 Grant CONS-ED '10 Grant E & T '10 Grant	1,532.21 1,431.36 31,390.96 94,480,43 94,480.43 11,818.85 68,868.39	1,532.21 1,431.36 41,571.79 41,571.39	34,000.00	31,390.96 18,909.04	41,102.28 68,868.39	11,806.36 11,792.84		26.01
TOTALS FOR VERMONT	304,002.63	86,106.75	34,000.00	50,300.00	109,970.67	23,599.20		26.01
WASHINGTON CONS ED '08 Grant 2009 - Unassigned 2010 - Unassigned	1,057.61 58,419.72 1,211.00	568.44 22,655.99	13,800.00	489.17 17,510.83				4,452.90 1,211.00
TOTALS FOR WASHINGTON	60,688.33	23,224.43	13,800.00	18,000.00				5,663.90
WISCONSIN CONS-ED '10 Grant	15,417.29	-			502.79			14,914.50
TOTALS FOR WISCONSIN	15,417.29				502.79			14,914.50

	APPROVED	Disbursed in 2009	Disbursed in 2010	Disbursed in 2011	Disbursed in 2012	Disbursed in 2013	Disbursed in 2014	Remaining
ESPA (NEW YORK) E & T '08 Grant CONS-ED '09 Grant E & T '09 Grant	\$55,536.56 35,326.45 19,111.46	\$16,336.56	\$19,600.00 19,326.45	\$19,600.00 16,000.00				19,111.46
CONS-ED '10 Grant E & T '10 Grant	126,000.00 35,600.00	24,000.00 27,600.00				11,340.00	12,190.00	78,470.00 8,000.00
TOTALS FOR ESPA	271,574.47	67,936.56	38,926.45	35,600.00		11,340.00	12,190.00	105,581.46
NYOHA CONS-ED '09 Grant E & T '09 Grant E & T '10 Grant	526,049.00 100,000.00 99,000.00	13,101.00 42,032.50	281,189.47 41,809.89	88,013.82 16,157.61 19,124.43	116,547.53 59,240.84	24,335.69 16,733.36		2,861.49 3,901.37
TOTALS FOR NYOHA	725,049.00	55,133.50	322,999.36	123,295.86	175,788.37	41,069.05		6,762.86
EASTERN E & T '07 Grant E & T '08 Grant CONS-ED '09 Grant E & T '09 Grant CONS-ED '10 Grant E & T '10 Grant	90,112.00 47,475.90 153,734.00 51,245.00 20,063.00 6,688.00	70,112.00 6,369.76 50,000.00	40,000.00 30,175.24	25,000.00		24,875.00	16,200.00 4,895.00	3,800.00 1,106.14 18,788.76 51,245.00 20,063.00 6,688.00
TOTALS FOR EASTERN	369,317.90	126,481.76	70,175.24	25,000.00		24,875.00	21,095.00	101,690.90
WESTERN CONS-ED '07 Grant CONS-ED '08 Grant E & T '08 Grant CONS-ED '09 Grant E & T '09 Grant CONS-ED '10 Grant E & T '10 Grant	205,918.04 16,010.00 12,773.02 75,494.00 35,600.00 9,853.00 3,284.00	205,918.04	10.00	16,000.00		12,773.02 40,589.48	2,828,90 1,193.59	32,075.62 34,406.41 9,853.00 3,284.00
TOTALS FOR WESTERN	358,932.06	205,918.04	10.00	16,000.00		53,362.50	4,022.49	79,619.03
CENTRAL CONS-ED '09 Grant E & T '09 Grant E & T '10 Grant	108,895.00 46,669.05 20,302.00	102,220.38 23,535.00	6,674.62 23,134.05					20,302.00
TOTALS FOR CENTRAL	175,866.05	125,755.38	29,808.67					20,302.00
HUDSON VALLEY CONS-ED '09 Grant E & T '09 Grant CONS-ED '10 Grant E & T '10 Grant	201,684.00 10,615.00 16,624.00 11,083.00	135,128.27 7,112.04	66,555.73 3,502.93 16,624.00 11,083.00					0.03
TOTALS FOR HUDSON VALLE	240,006.00	142,240.31	97,765.66					0.03
LONG ISLAND CONS-ED '09 Grant E & T '109 Grant E & T '10Grant	383,216.00 127,400.00 59,975.00	226,097.44 75,166.00	157,118.56 52,234.00			15,000.00	15,000.00	29,975.00
TOTALS FOR LONG ISLAND	570,591.00	301,263.44	209,352.56			15,000.00	15,000.00	29,975.00
TOTALS FOR NY STATE	2,711,336.48	1,024,728.99	769,037.94	199,895.86	175,788.37	145,646.55	52,307.49	343,931.28
TOTALS FOR REPORT	10,228,458.24	3,890,579.28	3,117,027.99	1,027,983.69	706,918.93	266,830.71	86,372.24	1,132,745.40

Income	·		2014	2015
	Collections and Assessments	Collections Collection Costs	5,160,000.00 70,000.00	8,750,000.00 95,000.00
		Net Collections	5,090,000.00	8,655,000.00
	In Kind Contributions			
	Sales Revenue		60,000.00	75,000.00
	Other Revenue (Grants, etc)		25,000.00	25,000.00
	Total Income		5,175,000.00	8,755,000.00
Proagram	Expenses			
	Consumer Education and Training (Max 30)	%)	1,548,000.00	2,625,000.00
	3 (Central	300,000.00	300,000.00
		States	1,248,000.00	2,325,000.00
	Research Development and Demonstration	(Min. 30%)	1,548,000.00	2,625,000.00
	, , , , , , , , , , , , , , , , , , ,	Central	1,300,000.00	2,000,000.00
		States	248,000.00	625,000.00
	50% Matching Required	Demonstration		
		Central		
		States		
	Home Energy Efficiency Program (Min 15%)	774,000.00	1,312,500.00
		Central	100,000.00	100,000.00
		States	674,000.00	1,212,500.00
	State Rebates (Unallocated Funds)		907,000.00	- 1,772,500.00
		Research and Development Home Energy Efficiency		
Office Una	allocated Expenses			
	Salaries and Consulting (Admin)		60,000.00	75,000.00
	Accounting (Admin)		100,000.00	100,000.00
	Insurance (Admin)		10,000.00	10,000.00
	Taxes		20,000.00	20,000.00
	Postage		5,000.00	5,000.00
	Web Pages		100,000.00	100,000.00
	Annual Report		15,000.00	15,000.00
	Rent (Admin)		15,000.00	15,000.00
	I ravel	0	10,000.00	10,000.00
	Other (Telephone, Supplies, Maintenance,	Computer)(Admin)	15,000.00	15,000.00
Other Exp	Total Unallocated Expenses penses/ (income)		350,000.00	365,000.00
'	Cost of Goods Sold		50,000.00	60,000.00
	Interest		(2,000.00)	(5,000.00)
	Total Other Expenses		48,000.00	55,000.00
Net Reve	nue/(Expense)		0.00	0.00

		CE and ET	R and D	Energy Efficiency	Rebate	
		1,248,000.00	248,000.00	674,000.00	907,000.00	3,077,000.00
Connecticut	9.35	116,636.33	23,177.73	62,991.10	84,766.95	287,572.11
District of Columbia	0.08	985.31	195.80	532.13	716.08	2,429.39
Delaware	0.82	10,282.37	2,043.29	5,553.14	7,472.84	25,351.64
Idaho	0.09	1,121.74	222.91	605.81	815.24	2,765.70
Indiana	0.22	2,792.20	554.86	1,507.97	2,029.27	6,884.29
Kentucky	1.65	20,596.48	4,092.89	11,123.42	14,968.76	50,781.55
Massachusetts	11.10	138,514.41	27,525.30	74,806.66	100,667.12	341,513.49
Maryland	2.97	37,071.13	7,366.70	20,020.79	26,941.92	91,400.55
Maine	5.67	70,733.00	14,055.92	38,200.35	51,406.11	174,395.38
Michigan	3.05	38,065.57	7,564.31	20,557.85	27,664.64	93,852.36
North Carolina	3.16	39,441.56	7,837.75	21,300.97	28,664.66	97,244.93
New Hampshire	4.82	60,173.75	11,957.60	32,497.68	43,732.04	148,361.07
New Jersey	8.52	106,379.25	21,139.47	57,451.61	77,312.48	262,282.81
New York	20.79	259,464.81	51,560.31	140,127.63	188,569.38	639,722.13
Nevada	0.05	598.47	118.93	323.21	434.95	1,475.56
Ohio	2.83	35,311.81	7,017.09	19,070.64	25,663.31	87,062.86
Oregon	0.41	5,126.78	1,018.78	2,768.79	3,725.96	12,640.32
Pennsylvania	13.53	168,801.05	33,543.80	91,163.39	122,678.33	416,186.56
Rhode Island	3.12	38,991.77	7,748.36	21,058.06	28,337.77	96,135.96
South Carolina	0.49	6,063.62	1,204.95	3,274.74	4,406.81	14,950.13
Virginia	2.83	35,296.90	7,014.13	19,062.59	25,652.48	87,026.09
Vermont	1.97	24,615.68	4,891.58	13,294.05	17,889.76	60,691.07
Washington State	0.61	7,612.55	1,512.75	4,111.26	5,532.52	18,769.07
Wisconsin	1.87	23,325.39	4,635.17	12,597.20	16,952.02	57,509.79
		1,248,001.92	248,000.38	674,001.04	907,001.40	3,077,004.82

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			2013			
		CE and ET	R and D	Energy Efficienc	y Rebate	
		2,325,000.00	625,000.00	1,212,500.00	1,772,500.00	5,935,000.00
Connecticu	9.35	217,291.25	58,411.63	113,318.55	165,655.37	554,676.79
District of (0.08	1,835.60	493.44	957.28	1,399.40	4,685.73
Delaware	0.82	19,155.85	5,149.42	9,989.88	14,603.76	48,898.92
Idaho	0.09	2,089.78	561.77	1,089.83	1,593.18	5,334.55
Indiana	0.22	5,201.81	1,398.34	2,712.77	3,965.68	13,278.61
Kentucky	1.65	38,370.85	10,314.74	20,010.60	29,252.62	97,948.81
Massachus	11.10	258,049.68	69,368.19	134,574.30	196,728.20	658,720.37
Maryland	2.97	69,062.81	18,565.27	36,016.63	52,651.11	176,295.82
Maine	5.67	131,774.21	35,423.18	68,720.96	100,460.13	336,378.48
Michigan	3.05	70,915.42	19,063.28	36,982.77	54,063.48	181,024.95
North Caro	3.16	73,478.87	19,752.38	38,319.62	56,017.76	187,568.63
New Hamp	4.82	112,102.53	30,135.09	58,462.07	85,463.12	286,162.81
New Jerse	8.52	198,182.49	53,274.86	103,353.24	151,087.51	505,898.11
New York	20.79	483,377.95	129,940.31	252,084.20	368,510.72	1,233,913.18
Nevada	0.05	1,114.94	299.72	581.45	849.99	2,846.09
Ohio	2.83	65,785.23	17,684.20	34,307.35	50,152.40	167,929.18
Oregon	0.41	9,551.10	2,567.50	4,980.95	7,281.43	24,380.98
Pennsylvar	13.53	314,473.11	84,535.78	163,999.42	239,743.48	802,751.79
Rhode Isla	3.12	72,640.92	19,527.13	37,882.63	55,378.94	185,429.61
South Carc	0.49	11,296.41	3,036.67	5,891.14	8,611.99	28,836.21
Virginia	2.83	65,757.45	17,676.73	34,292.86	50,131.22	167,858.26
Vermont	1.97	45,858.54	12,327.57	23,915.48	34,960.97	117,062.56
Washingto	0.61	14,182.03	3,812.37	7,396.00	10,811.89	36,202.29
Wisconsin	1.87	43,454.75	11,681.38	22,661.88	33,128.40	110,926.42
	100.00	2,325,003.58	625,000.96	1,212,501.87	1,772,502.73	5,935,009.14

REBATEAGREEMENT

This REBATE AGREEMEN	T ("Agreement") is made this
b	y and between the National Oilheat Research
Alliance, Inc., a District of Columbia	n non-profit corporation, whose address is 600
Cameron St, Alexandria, Virginia, 22	2314 ("Alliance") and
	whose
address is	and shall govern the
performance, services and other activ	vities required under this Agreement. The Alliance
and the Rebate Recipient are hereina	fter referred to collectively as the "Parties" and
individually as the "Party."	

RECITALS

- **A.** Pursuant to the National Oilheat Research Alliance Act of 2000 (the "Act"), Title VII of Public Law No. 106-469 as amended by P.L 113-79, the Alliance is required to develop programs and complete projects for the purpose of enhancing consumer and employee safety and training on the use of heating oil; ensuring the performance of productive research focused on the development of clean and efficient heating oil utilization equipment; and informing and educating the public about safety and other issues associated with the use of heating oil.
- **B.** In furtherance of the development of such programs and projects and the Act's statutory mandate, the Alliance desires to provide funding to the Rebate Recipient, and the Rebate Recipient desires to accept such funds from the Alliance, all in accordance with the terms and conditions contained in this Agreement.

NOW, THEREFORE, in consideration of the mutual covenants and conditions set forth in this Agreement, the sufficiency of which is hereby acknowledged, the Alliance and the Rebate Recipient hereby agree as follows:

1. Scope of the Work.

1.1. The Rebate Recipient shall furnish and perform [for the Alliance] established tasks as defined by NORA's schedule of approved activities. The Rebate Recipient shall consult with members of the oilheat industry to ensure that the projects undertaken maximize value for the industry and its customers. This Agreement, all schedules and exhibits hereto and all referenced documents and requirements are hereinafter referred to collectively as the Agreement or the "Transaction Documents." All services, research and work-product required to be completed under this Agreement and the Transaction Documents (including work required by change orders) shall be referred to herein as the "Work." The requirements of this Agreement shall be broadly construed to ensure that the services, research and Work meet applicable industry standards for professional services and work of the same or a similar nature and that such work comply in all respects with the terms of the Transaction Documents. This Agreement will be narrowly construed as it relates to Rebate Recipient's compliance with

the requirements and intent of the Act, and the Alliance's bylaws, policies, rules and procedures currently in force and as amended and can be found at www.nora-oilheat.org Without exception, the Rebate Recipient shall provide all of the services and perform all of the Work described and identified in their rebate submission. All actions undertaken pursuant to this rebate shall be in compliance with federal, state and local law, including, without limitation, the requirements under the Act. Rebate Recipient represents to the Alliance that it has fully reviewed and agrees to fully comply with each of the following in performing this Agreement: (1) the Alliance's bylaws; (2) Alliance's policies, rules and procedures; and (3) the Act. The Alliance will make available to Rebate Recipient any amendments or other revisions to the Alliance bylaws, policies or rules, which will be fully applicable to Rebate Recipient and the Work performed under this Agreement.

- 1.2. The Scope of Work is not intended to limit the Rebate Recipient's ability to incorporate unique or beneficial features into its Work. Variation from the Scope of Work will be considered by the Alliance, if the proposed change is within the Agreement budget limitations, meets the objectives for the Agreement and results in an improved Work product. Rebate recipient shall advise NORA of any proposed changes to ensure that they are acceptable.
- 1.3. This and all other Transaction Documents are intended to supplement and complement each other and shall, where possible, be thus interpreted. If, however, any provision of the Agreement or Transaction Documents irreconcilably conflicts with another provision, the provision imposing the greater duty or obligation on the Contractor shall govern.

2. General Performance Obligations.

- 2.1. Work and Capabilities. In completing the Work required under this Agreement, including any permitted modification, the Rebate Recipient shall provide all management, supervision, manpower, administrative support, insurance, materials, supplies, know-how, technology, equipment and all other materials and services, and shall plan, schedule, coordinate and ensure effective and timely performance of all specified services within the fixed or other pricing of the Agreement.
- 2.2. <u>Reviews</u>. The Alliance's review, approval, acceptance of, or payment for any of the Work required under this Agreement, shall not be construed as a waiver by the Alliance of any obligation of Rebate Recipient under this Agreement.
- 2.3. **Professional Quality.** The Rebate Recipient is responsible for the professional quality, technical accuracy and coordination of the Work. The Rebate Recipient shall, without additional funding, address questions and concerns raised by the Alliance or its agents or representatives and correct or revise errors or deficiencies in the Work furnished under this Agreement or have payment withheld pursuant to Article 19.
- 2.4. <u>Communications</u>. While the Rebate Recipient may communicate with other representatives of the Alliance, the Rebate Recipient shall proceed with Work based solely on the directions, instructions and/or comments of the Alliance's Authorized Representative as referenced in Article 28 and as otherwise agreed to herein. Before

proceeding with any directions or instructions issued by a Party other than the Alliance's Authorized Representative, the Rebate Recipient shall first obtain the approval and consent of the Alliance in writing.

- 2.5. <u>Meetings and Documentation</u>. Throughout Agreement performance, the Alliance may schedule periodic meetings with the Rebate Recipient through the Parties' Authorized Representatives for the purposes of discussing Work status, procedures, progress, problems, scheduling, cost issues and other pertinent matters involving the Work. The Rebate Recipient shall attend and participate in such meetings. The Rebate Recipient shall also attend meetings where questions or problems arise concerning the Rebate Recipient's Work and as otherwise requested by the Alliance.
- 2.6. **Project Issues.** The Rebate Recipient shall immediately notify the Alliance in writing of any problems, issues, delays or concerns involving its Work. Rebate Recipient shall promptly make recommendations concerning solutions, cost controls, scheduling, and levels of effort, while maintaining the approved Agreement completion dates, interim and otherwise. The Rebate Recipient shall also promptly advise the Alliance in writing of any relevant problems of which it becomes aware which are outside of the Rebate Recipient's Scope of Work or Agreement requirements and shall offer solutions for such problems, and follow-up as required by the Alliance.
- 2.7. <u>Data Collection, Analysis, Recommendations and Deliverables</u>. Rebate Recipient shall have the sole responsibility to obtain all information required to successfully complete the Work in accordance with requirements under this Agreement. The Rebate Recipient's draft Progress Reports (defined in Article 4) and Final Reports (defined in Article 4) and other submissions that are required to be delivered under the Agreement ("Deliverables") are to be prepared based on all information available in the relevant scientific communities as well as on appropriate research, surveys, conferences, and factual information from other data sources.
- 2.8. <u>Interactions and Proceedings</u>. The Rebate Recipient shall establish all necessary liaisons, coordination, and support with any agencies or representatives at the federal, state, regional, and local levels, and as otherwise required by the Alliance. The Rebate Recipient shall prepare and provide all information and submissions required for approvals by governmental authorities or others having jurisdiction over the Work, except information that the Alliance agrees in writing to provide. Unless the Alliance provides otherwise in writing, the Rebate Recipient shall be solely responsible for actively participating in all such proceedings associated with obtaining such approvals or otherwise complying with all applicable federal, state and local laws, codes and regulations.

3. Rebate Recipient Deliverable Procedures.

3.1. In performing under this Agreement and as part of the Scope of Work, the Rebate Recipient may be required to submit and deliver certain Deliverables upon request of the Alliance, including documents, reports or other tangible evidence that it is completing or has completed the required Work.

- 3.2. All Deliverables by the Rebate Recipient shall be on the forms and follow the procedures instructed by the Alliance and satisfy the requirements contained in Article 2.
- 3.3. Unless specifically authorized by the Alliance, on a case by case basis, all Deliverables shall be computer generated and shall not be handwritten.
- 3.4. If the Alliance reasonably determines that any material aspect of a Deliverable is inadequate or incomplete, the Rebate Recipient shall make any corrections and/or additions and promptly resubmit the Deliverable to the Alliance at no additional cost to the Alliance. The Rebate Recipient shall submit an action plan indicating ways and means to recover lost time due to Rebate Recipient caused delays. Additional time will be granted to the Rebate Recipient if it is determined by the Alliance that the delay is reasonable; provided the Rebate Recipient has prudently exercised all reasonable and economically viable options within its authority and ability to avert such delays.
- 3.5. The Rebate Recipient is responsible for properly protecting all Deliverables transmitted to the Alliance.

4. **Grant.**

- 5.1 The Alliance as part of its annual budget will develop rebates to each of the participating states, and appropriate expenditure categories. NORA will periodically update those amounts and provide Rebate Recipient periodic reports on allocations and expenditures. Failure to use funds within two years after the allocation is contracted for and made available to the Rebate Recipient will result in NORA developing and utilizing the allocated funds in the designated state. The Rebate shall be used solely for the Work. The Rebate delivered to Rebate Recipient by the Alliance may include costs for personnel, contracted services related to the Work, supplies and materials and other operating costs that Rebate Recipient budgeted for in its Work Schedule. The Rebate will not include funding for administrative expenses.
- 5.2 The Rebate shall only be used for the Work or as otherwise permitted herein. At no time will any portion of the Rebate be used by Rebate Recipient for any campaign, legislation or other political purpose. Reference is made to the statute for interpretation of this clause.
- 5.3 The Alliance may cease payment of Rebate at any time in its sole and absolute discretion.
- 5.4 If outside vendors are used to accomplish tasks, the bills should be sent to NORA for payment in conformance with NORA's bill submittal procedures.
- 5.5 If the Rebate recipient accomplishes the work, NORA will reimburse for appropriate staff time at usual and customary rates of the association, and those expenses shall be detailed in conformance with NORA's bill submittal procedures.

6. Agreement Performance Period and Scheduling.

The Work to be performed under this Agreement shall begin on execution of this agreement.

7. Progress Payments.

Except as otherwise agreed by the Parties in writing, the Alliance shall make payments on account of this Agreement as follows: the rebate payments shall be made on completion of work and pursuant to billed work to the Alliance, the alliance shall have no obligation to pay any work which is not ratable to NORA's income for the state. In 2014, the state shall be allowed to draw 27 percent of allocation on execution, 14 percent on November 1st, and 59 percent on February 1, 2015. This collection and payment shall be 44 percent on April 25th, 15 percent on July 25th, 8 percent on October 25th and 33 percent on January 25th of the following year. NORA may adjust these numbers with appropriate notice in future years, and may unilaterally reduce the budget number for state rebates if collections are at variance with revenue estimates. Any costs or amounts which are not properly documented, verified or are not permitted under the Act shall not be paid by the Alliance. Where a third Party will be providing matching funds or services, the Rebate Recipient shall be required to provide the Alliance with adequate assurances that such matching funds and services are being provided timely and properly. Failure to submit may at the sole discretion of the Alliance result in suspension of payments under the Rebate until such accounting documents are furnished.

8. Acceptance and Final Payment.

Upon receipt of the final Deliverables, including the Final Report on the Work and written notice from the Rebate Recipient that the Work is complete and ready for final, review, inspection, testing and acceptance ("Review"), the Alliance shall make such Review within a reasonable time.

9. Proceeds from Sale, License or Other Use of the Work.

In the event the Alliance does not exercise its right of first refusal and any embodiment or manifestation of the Work is sold, licensed or otherwise used, the Alliance and Rebate Recipient shall enter into an agreement to provide for, among other terms (1) the sharing of profits and (2) the distribution of any such embodiment or manifestation of Work.

10. Status and Responsibility of the Rebate Recipient and its Personnel.

It is understood and agreed that the Rebate Recipient will perform the Work required by this Agreement as an independent Contractor and that during the performance of this Agreement, the Rebate Recipient's employees will not be considered employees of the Alliance within the meaning or the application of any federal, state or local laws or regulations including, but not limited to, laws or regulations covering unemployment insurance, old age benefits, workers' compensation, industrial accident, labor or taxes of any kind. The Rebate Recipient's personnel who are to perform the Work to be provided

by Rebate Recipient hereunder are and shall be deemed under the employment and ultimate control, management and supervision of the Rebate Recipient. It is understood and agreed that Rebate Recipient's employees shall not be considered the Alliance's employees within the meaning or application of Customer/employee fringe benefit programs or for purposes of vacations, holidays, pension, group life insurance, accidental death, medical, hospitalization and surgical benefits. Rebate Recipient and its employees and agents shall not represent themselves or hold themselves out as employees of the Alliance at any time.

11. Compliance with Law.

Compliance by Rebate Recipient of Laws. The Rebate Recipient shall perform all Work in strict compliance with all federal, state and local laws, rules, regulations, standards, codes and other governmental requirements that are applicable to the performance of the Work on the effective date of this Agreement and throughout Agreement performance as well as in compliance with the Alliance's document entitled "Policies, Rules and Procedures", Rebate Recipient Policies, Rules and Procedures (attached as Exhibit B) and the Act.

12 Consumer Education Materials Compliance.

- 12.1 Rebate Recipient agrees that any materials to be used for consumer education (as such term is defined and referenced in the Act for purposes of this Section 11.2) shall be prepared by Rebate Recipient in full compliance with (i) the Act and any restrictions thereunder and (ii) all other applicable federal and state laws.
- 12.2 Rebate Recipient agrees to submit all consumer education materials to the Alliance prior to any use of such materials by Rebate Recipient or its representatives. The Alliance will have the right, in its sole and absolute discretion, to amend, modify or prohibit the use of consumer education materials by Rebate Recipient or its representatives. Under no circumstance will Rebate Recipient use any consumer education materials without the consent of the Alliance.
- 12.3 Any materials developed shall be made available to any member of the Alliance and any state or regional association affiliated with the Alliance. Any user of said materials shall be responsible for any rights or other fees associated with its use.
- 12.4 In any case where materials are developed by the state, the state shall attempt to obtain copyright of the materials, appropriate patents.

13. Environmental, Safety and Health Provisions.

Throughout the performance of this Agreement, the Rebate Recipient agrees to comply with: (a) all applicable safety and health protection procedures, laws and regulations of federal, state and local governmental agencies, including but not limited to, OSHA and/or its state or local equivalents; (b) all applicable environmental protection

laws, procedures and regulations enforced by federal, state and local governmental agencies including, but not limited to, the U.S. EPA and/or its state or local equivalents; and (c) all of the Alliance's bylaws, policies, rules and procedures.

14. Employment and Related Laws.

To the extent applicable as a matter of law to the Work and/or the subcontracting of the Work hereunder, the following provisions are incorporated by reference and the Rebate Recipient represents that it will comply with them: The Equal Employment Opportunity Act, E.O. 11246 and 41 C.F.R. § . 60-1.4 and 60-1.7; the Employment of Veterans Act, 41 C.F.R. § . 60-250; and the Employment of Handicapped Act, 41 C.F.R. § 741-4, Drug Free Workplace Act of 1988 (Pub.L. 100-690); Service Agreement Act of 1965, as amended, 41 U.S.C. 351, et seq.; Americans with Disabilities Act of 1990, 42 U.S.C. § 12101, et seq., and such other laws or regulations as the federal government may require the Alliance to flow down to its contractors; and all rules and regulations issued pursuant to the foregoing.

15. Protection of the Public and the Work.

The Rebate Recipient shall take all reasonable and necessary precautions for the protection and safety of: the public, the Rebate Recipients employees, representatives and agents, and all other personnel performing the Work. The Rebate Recipient shall take reasonable precautions to protect the Work and the Work of the Alliance's other Rebate Recipients from loss, damage or destruction arising from any act or omission of the Rebate Recipient, any subcontractor, or any other conditions affecting the Work.

16. Changes in the Work and Claims.

- The Alliance's Authorized Representative may at any time initiate changes 16.1 in the Work that alter, add to or delete Work required under this Agreement ("Change"). The "Authorized Representative" shall be the then acting President of the Alliance or his designees. If such a Change affects the cost or the time required for completion of the Work, then the Agreement Price and Agreement Performance Period shall be increased or decreased as appropriate and in accordance with the terms of this Article 16. The Alliance will initiate the change process by providing a written description of the Change to be made by the Rebate Recipient on a document entitled "Proposed Change Order." The Rebate Recipient shall submit promptly to the Alliance a document entitled "Change Order Proposal" itemizing the reasonable and necessary adjustment in the Agreement Price and Agreement Performance Period to correspond to the Change. If the Alliance and the Rebate Recipient cannot agree on the appropriate adjustment in the Agreement Price or Agreement Performance Period, the Rebate Recipient shall nevertheless proceed with the Work associated with the Change, and the disagreement on the adjustment shall be resolved in accordance with Paragraph C below and Article 24 on Disputes.
- 16.2 Any dispute as to the appropriate adjustment in the Agreement Performance Period or Agreement Price associated with a Change, Change Request or Claim shall be settled in accordance with Article 24 hereof and the terms of this Section

15.3. Under no circumstances shall the Rebate Recipient be entitled to recover any amount more than a reasonable adjustment in the Agreement Price based upon costs reasonably and necessarily incurred by the Rebate Recipient in connection with a Change, Change Request or Claim. Under no circumstances shall the Rebate Recipient be entitled to recover consequential, exemplary or punitive damages from the Alliance. All Rebate Recipient Change/Claim Proposals shall be submitted in writing, and shall include the relief requested, a detailed explanation of the basis for the Claim or Change and complete supporting documentation.

17. Rebate Recipient's Continuing Obligation.

Neither inspection by the Alliance, nor issuance of any payment to the Rebate Recipient, termination of this Agreement, nor any provision of this Agreement, statement or conduct of the Alliance shall relieve the Rebate Recipient of liability for failing to satisfy its obligation under this Agreement or otherwise performing faulty or inadequate services. The obligations under Articles 10, 11, 13, 14, 16, 21, 22, 24, 25 and 32 shall survive completion of the Work and termination of this Agreement.

18. Alliance's Right to Terminate Agreement for Cause and Convenience.

- 18.1. Termination For Cause. The Alliance may terminate or cancel this Agreement in whole or in part for cause, if: (a) Rebate Recipient's performance does not conform in all respects to the terms of this Agreement; (b) Rebate Recipient fails to timely and satisfactorily provide its Deliverables or services to the Alliance, as time is of the essence under this Agreement; (c) Rebate Recipient's violation of any applicable laws, ordinances, rules, regulations, instructions and/or other Agreement performance requirements; or (d) any question arises concerning Rebate Recipient's financial condition or solvency. Where a basis for termination exists, the Alliance will give the Rebate Recipient written notice, specifying the cause(s) for such dissatisfaction. If the deficiencies are not corrected to the satisfaction of the Alliance within seven (7) days of the date contained on the Alliance's written notice, or such other time period set forth in the Alliance's notice, the Rebate Recipient will be given written notice of the Alliance's termination of this Agreement for cause. Any notice of termination or cancellation shall specify the extent to which performance under the Agreement is terminated, and the effective termination or cancellation date.
- 18.2. <u>Termination for Convenience</u>. The Alliance may, at any time, terminate the Rebate Recipient's services under the Agreement for any reason whatsoever or for its convenience by giving the Rebate Recipient not less than fifteen (15) days' written notice of termination setting forth the effective date of termination.
- 18.3. <u>Termination Compensation</u>. In the event the Agreement is terminated for cause or convenience, the Alliance shall pay to the Rebate Recipient the balance due, if any, on the Agreement price for Work actually performed, accepted and approved by the Alliance prior to the effective date of termination, less payment previously made by the Alliance on account thereof and less any damages or loss the Alliance may have incurred as a result of the Rebate Recipient's performance or conduct.

19. Payments Withheld.

The Alliance may withhold all or part of any payment to the extent necessary to protect the Alliance from loss or damage on account of: (a) Defective Work not remedied; (b) Claims filed or reasonable evidence indicating probable filing of claims by other Parties against the Rebate Recipient or the Alliance; (c) Failure of the Rebate Recipient to make payments properly to subcontractors; (d) A reasonable doubt that this Agreement can be completed for the balance then unpaid or within the time specified; (e) Damage to the Work, to the Alliance's property, the work of the Alliance's other contractors or other contractors, or the failure to protect against such damage; (f) Failure of the Rebate Recipient to make satisfactory progress or to meet the established performance schedule; (g) The Rebate Recipient's violation of any applicable laws, ordinances, rules, regulations, instructions and/or other Agreement performance requirements; and (h) Any other penalty, fine, damage or cost incurred or sustained by the Alliance or that may be incurred or sustained.

20. This section is deliberately blank.

21. Warranty and Quality.

The Rebate Recipient warrants that all Work, services, products and materials shall: conform to the Scope of Work agreed to by the Rebate Recipient and the Alliance; meet the applicable industry standards for professional quality, merchantability and fitness for their intended purpose and fully comply with all applicable laws and regulations. If any Work performed including Work product is defective or otherwise not in conformity with the requirements of this Agreement, the Alliance, in addition to its other rights, may reject the same for full reimbursement of funds expended by the Alliance for the particular defective or non-conforming Work or Work product, or require proper correction, replacement or completion thereof at the Rebate Recipient's expense to occur not more than 20 days after such rejection. All costs and expenses to conform Work shall be at the sole expense of Rebate Recipient. The Rebate Recipient's duty to perform correction and replacement Work shall survive the Alliance's Review, inspections, tests and acceptance for a period of twelve (12) months from the date the Alliance issues a Certificate of Final Completion covering the Work.

22. Indemnity by the Rebate Recipient.

22.1. The Rebate Recipient agrees to indemnify, defend and hold harmless the Alliance, its directors, officers, agents, staff, and employees (all such Parties are hereinafter referred to collectively as the "Indemnified Parties") from and against any and all liability, claims, lawsuits, losses, demands, damages, costs, and expenses (including reasonable attorney's fees and court costs), arising directly or indirectly out of the Rebate Recipient's performance or the performance of Rebate Recipient's officers, directors, employees, agents, representatives, contractors and sub-contractors, suppliers or other affiliates under the Agreement, including, without limitation, performance of the Work and the design, manufacture, sale or use of any embodiment or manifestation of the Work.

- 22.2. The Rebate Recipient agrees to supply all monies necessary to provide a diligent defense against any and all liability, claims, lawsuits, losses, demands, damages, costs, and all other expenses (including attorney's fees and court costs and costs of settlement), brought against the Indemnified Parties with respect to the subject of the indemnity, whether such claims or actions are rightfully or wrongfully brought or filed. Any Indemnified Party wishing to be indemnified shall:
 - a) promptly after receipt of notice of any and all liability, claims, lawsuits losses, demands, damages, costs, and expenses, or after the commencement of any action, suit, or proceeding giving rise to the right of indemnification, notify the Rebate Recipient, in writing, of said liability, claims, lawsuits, losses, demands, damages, costs, and expenses and send to the Rebate Recipient a copy of all papers served on the Indemnified Party;
 - b) permit the Rebate Recipient to retain qualified counsel of the Alliance's choosing to represent the Indemnified Party (but in the event that the Rebate Recipient does not select counsel to represent the Indemnified Party within ten (10) days, the Indemnified Party may select its own counsel, the fees and all costs of which will be borne by the Rebate Recipient); and
 - allow the Rebate Recipient to retain exclusive control of any such liability, claims, lawsuits, losses, demands, damages, costs, and expenses, including the right to make any settlement, except that the Rebate Recipient will not have the right to make any settlement or take any other action which would be deemed to confess wrongdoing by any of the Indemnified Parties or could reasonably be expected to have a negative effect on the reputation of one of the Indemnified Parties, without the prior written consent of the Alliance and the Indemnified Party involved.

23. Subcontractors and Suppliers/Flow Down Obligation.

The Rebate Recipient agrees to be solely responsible for any failure by its subcontractors or consultants to comply with the terms and conditions of this Agreement. Nothing herein shall be deemed to create a contractual relationship between any such subcontractor and the Alliance or provide a basis for any claim by a subcontractor against the Alliance. All of the Rebate Recipient's subcontractors and consultants shall be apprised of the terms and conditions of this Agreement and shall be held liable, accountable for and subject to these terms and conditions in their own subcontract work and contracts to the same extent and degree that the Rebate Recipient is or would be liable, accountable for and subject to these terms and conditions in its Agreement Work. It shall be the Rebate Recipient's duty to ensure that its subcontractors and consultants accept and comply with all of the terms and conditions of this Agreement and are fully insured and/or bonded.

24. Disputes.

Claims, disputes or other matters in question between the Parties to this Agreement that cannot be resolved by good faith negotiations shall be subject to mediation, and if necessary, mediation or arbitration. A demand for mediation shall be made within thirty (30) days after one Party has notified the other Party in writing of its belief that a dispute cannot be resolved by negotiation. After the expiration of the thirty (30) day period, the Parties may nevertheless agree in writing to submit the dispute to mediation. Any mediation shall be held in accordance with the Mediation Rules of the American Arbitration Association in effect when the dispute arises, unless the Parties mutually agree otherwise in writing. The mediation shall take place at a mutually convenient location in the District of Columbia. Demand for mediation shall be filed in writing with the other Party to this Agreement and with the American Arbitration Any dispute or difference arising out of or in connection with this Association. Agreement which cannot be amicably settled by mediation within sixty (60) days after a demand for mediation is issued, shall be finally settled by arbitration under the Rules of Commercial Arbitration of the American Arbitration Association. The arbitration shall take place at a mutually convenient location in the District of Columbia. The resulting decision of the arbitrators shall be final and binding on the Parties. Judgment upon any award rendered by the arbitrators may be entered in any court having jurisdiction thereof. In no event shall the demand for mediation or arbitration be made after the date when institution of legal or equitable proceedings based upon such claim, dispute or other matter in question would be barred by the applicable statute of limitations. prevailing Party in any arbitration will have all costs and expenses of such proceeding paid for by the other Party, including, without limitation, legal fees.

25. Non-Disclosure Agreement and Publications.

- 25.1. The Rebate Recipient agrees to use its best efforts to prevent disclosure of information arising from or relating to this Agreement which is designated in writing as being "CONFIDENTIAL" or is otherwise known to be confidential by the Rebate Recipient.
- 25.2. The Rebate Recipient further agrees that it will not use or disclose to any third Party, any of the results of the Work. However, such information may be disclosed insofar as such disclosure is necessary to allow either the Rebate Recipient or the Alliance, as the case may be, (i) to defend itself against litigation, (ii) to file and prosecute patent, copyright or trademark applications on any invention or other intellectual property conceived or reduced to practice under the Agreement, or (iii) to comply with any judicial decree or government action. Notwithstanding the above, such obligation of confidentiality shall not apply to information that at the time of disclosure: (a) is in the public domain; (b) has come into the public domain through no fault of the Rebate Recipient; (c) was known to the receiving Party prior to its disclosure by the disclosing Party; (d) is disclosed by a third Party not under an obligation of nondisclosure; (e) is required by law or legal process to be disclosed; or (f) written permission for disclosure has been granted to the disclosing Party by the Rebate Recipient or the Alliance, as the case may be.

25.4. Regardless of whether the Alliance retains the ownership rights in the Work, the Alliance shall have an irrevocable transferable license to use the Work or work product produced under this Agreement in connection with the work of other Alliance Rebate Recipients and in the Alliance's activities, including but not limited to the right to use and disseminate the Work or work product on the Alliance's Internet web page.

26. Ownership of the Work.

Where the Alliance has exercised its right of first refusal and the option to retain intellectual property rights in the Work (or any part thereof), the Alliance shall have the sole and exclusive right, title and interest in and to the Work (or part thereof) and any invention or development of a product, device, process, or method, whether able to be protected by patent, trademark, copyright or otherwise that may arise from performance under the Agreement. To the extent requested by the Alliance, the Alliance shall own all intellectual property rights, including patents, copyrights and trademarks, related to the Work. Rebate Recipient acknowledges that the Work performed under the Agreement is a "work for hire" and agrees to take all action necessary to ensure that the Alliance has all right, title and interest in and to all of the intellectual property rights related to the Work and any results or inventions arising out of the Work, including assigning to the Alliance all rights it may hold. Rebate Recipient acknowledges that the results of the Work and Agreement performance and any inventions, products or services arising from the Agreement will be made available to all members of the heating oil industry on equal terms and in no event may such results or inventions be restricted to any group of industry members or may pricing of the product discriminate among distinct groups of industry members. To the extent the Alliance seeks to retain intellectual property rights, the Alliance shall be responsible for the preparation, filing, and prosecution of all patent, trademark and copyright applications covering any invention, product or service arising out of the Work, as well as all costs and fees associated therewith. The Rebate Recipient and its employees shall assist the Alliance in the preparation, filing and prosecution of such applications. The Alliance shall own all right, title, and interest in any regulatory approvals which are obtained by or on behalf of the Alliance, to the extent such approvals are transferable otherwise Rebate Recipient will fully cooperate with the Counsel to obtain any required approvals. The Rebate Recipient and its employee shall assist the Alliance with respect to any filings which may be required by appropriate health or regulatory authorities.

27. Force Majeure.

Neither Party shall be responsible for performing under this agreement due to any cause beyond the control of the Alliance and the Rebate Recipient for which they could not have reasonably foreseen and guarded against, which acts shall include acts of God, fires, floods, wind storms, ice storms, labor disputes, court orders, fires, riots, civil unrest, incendiarism, interference by civil or governmental authorities (not due to violation of any provision of this Agreement), and acts of war. Rebate Recipient, in good faith, shall make every effort to continue to perform under this Agreement.

28. Notice and Authorized Representative.

Written notice shall be deemed to have been duly served when received by hand delivery or when received by certified or registered mail, overnight delivery service (i.e. FedEx) or facsimile in each case to: (1) the "Company General Counsel/Senior Executive Officer" at the address set forth on the first page of this Agreement; and (2) to the Authorized Representative of the Alliance at the address below, including all copies, and the Rebate Recipient. Each Party shall advise the other in writing of any applicable address change.

The Alliance's Authorized Representative:

Name: National Oilheat Research Alliance, Inc.

Address: 600 Cameron Street

Alexandria, VA 22314

Phone: 703-340-1660

29. Governing Law.

This Agreement, including all performance requirements and disputes hereunder, shall be governed by and construed in accordance with the laws of the state of Virginia.

30. Entirety Clause/Severability.

The terms and conditions of this Agreement constitute the sole, exclusive and entire agreement between the Alliance and the Rebate Recipient. Any modifications must be set forth in writing and signed by the Alliance's and the Rebate Recipient's duly Authorized Representative. If any provision herein is held to be invalid by any competent court or arbitration tribunal, the remaining provisions of this Agreement shall survive and remain in full force and effect. The Parties hereto shall endeavor in good faith negotiations to replace the prohibited or unenforceable provision with a valid provision, with the economic effect of which comes as close as possible to that of the prohibited or unenforceable provision.

31. Waiver.

No waiver shall be deemed to have been made by either Party unless expressed in writing and signed by the waiving Party. The failure of either Party to insist, in any one or more instances, upon strict performance of any of the terms or provisions of this Agreement, or to exercise any option or election herein contained, shall not be construed as a waiver or relinquishment for the future of such terms, provisions, option or election, but the same shall continue and remain in full force and effect, and no waiver by any Party of any one or more of its rights or remedies under this Agreement shall be deemed to be a waiver of any prior or subsequent rights or remedy hereunder or at law. All remedies afforded in this Agreement shall be taken and construed as cumulative; that is, in addition to every other remedy available at law or in equity.

32. Miscellaneous Provisions.

- 32.1. <u>Access to Records</u>. In connection with the Work performed, Payment Requests, Rebate Recipient Claims, Change Requests, Changes, and terminations, the Rebate Recipient shall permit the Alliance access to and permit copies to be made of Rebate Recipient's books and records, including records of reimbursable and other expenses.
- 32.2. <u>Taxes</u>. The Agreement Price includes and the Rebate Recipient shall pay, all sales, consumer, use and all other taxes, fees, assessments and levies required by law.
- 32.3. <u>Authority</u>. The officers or partners of the Alliance and the Rebate Recipient, respectively, signing this agreement represent and warrant that they have the power and authority to execute the Agreement on behalf of the Alliance or the Rebate Recipient, as applicable, and to bind the Alliance or the Rebate Recipient, as applicable, herein.
- 32.4. **Permits and Notices.** The Rebate Recipient shall obtain all permits and licenses required as a matter of law or regulation and necessary for the proper completion of all Work under this Agreement. The Rebate Recipient shall provide all notices required by law which bear on the performance of the Work.
- 32.5. <u>Inspection and Testing of Work.</u> Upon written request, the Alliance and its representatives shall at all reasonable times during normal business hours have access to and the right to inspect the Work. Such inspections or verbal approval are not to be interpreted as the Alliance's acceptance of the Work or a waiver of Agreement requirements.
- 32.6. <u>Assignment</u>. The Rebate Recipient shall not assign or sublet this Agreement in whole or in part, nor shall the Rebate Recipient assign any monies due or to become due hereunder, without the prior written consent of the Alliance. Upon thirty (30) days notice to Rebate Recipient, the Alliance may assign this Agreement to another individual or entity.
- 32.7. <u>Use of Institution Name/Public Statements</u>. The Rebate Recipient agrees to make no public presentations about the Work outside of appropriate scientific meetings, to issue no news releases about the Work, and the Rebate Recipient shall not make use of the Alliance's name in any form of public information without the written permission of the Alliance.
- 32.8. **Relationship.** Nothing herein contained shall be construed to imply a joint venture, partnership or principal-agent relationship between the Alliance and the Rebate Recipient, and neither Party shall have the right, power or authority to obligate or bind the other in any manner whatsoever, except as otherwise agreed to in writing.
- 32.9. <u>Legal Rights</u>. The rights and remedies of the Alliance provided for under this Agreement are in addition to any other rights and remedies provided by law.

32.10 <u>Counterparts</u>. This Agreement may be executed in one or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. A facsimile signature by the Alliance and/or Rebate Recipient shall be deemed the original signature of such Party.

[REMAINDER OF PAGE LEFT INTENTIONALLY BLANK]

IN WITNESS WHEREOF, the Parties by their duly Authorized Representatives have executed this Agreement and entered into this Agreement on the dates set forth below. The date provided below by the final signatory to this Agreement shall be the effective date of this Agreement.

National Oilheat Research Alliance, Inc.	
"Alliance"	"Rebate Recipient"
Ву:	By:
Print Name: John Huber	Print Name:
A.1 1 1 T.7 A	Address:
Title: President	Title:
Date:	Date:





Product Development Program Opportunity Notice (PON) No. 2014-001 October 31, 2014

\$2,000,000 Available in this Round of Funding Proposals are due December 12, 2014 at 5:00 PM Eastern Time

The National Oilheat Research Alliance Board of Directors will authorize \$2,000,000 to be spent on the following project. Successful research, development and demonstrations grants in the past ranged from \$20,000 to \$350,000. All projects will be managed by NORA's Liquid Fuels Research Center (LFRC) and be reviewed by the Board and the Advisory Committee on Research and Development.

NORI PON No. 2014-001 seeks proposals to support the development, demonstration, and commercialization of Oilheat technologies and systems in the following categories:

Category A: Fuel use/tracking

Category B: Combustion monitoring
Category C: Fuel Quality Assessment

Category D; B-100 burner

Category E: Smart meter technology Category F: Atomization technology

Category G: Other New Ideas

Under PON No. 2014-001, NORI plans to award multiple cost-shared contracts in Categories A through G up to a total of \$350,000 for each award. This funding allocation may be adjusted depending on the quantity and quality of proposals received. There is no minimum project funding amount per project award.

This solicitation includes the following:

Section		Page
I.	Program Interest Areas	3
II.	Program Requirements, Proposal Format, Proposal Evaluation	8
III.	General Conditions	13

Proposal Checklist

Sample Contract Pricing Proposal Form and Instructions

Evaluation Criteria

Sample Agreement (Contract Terms and Conditions)

Attachment D

Attachment D

Proposers are strongly encouraged to contact NORI to discuss their planned proposals prior to submission. If you have any questions about program issues or the technical scope of this solicitation, please contact one of the following individuals by e-mail, facsimile or calling:

To: Richard Sweetser; Director R&D cc: John Huber; President

Phone: 703.707.0293 Phone: 703.340.1660 Fax: 703.707.0138 Fax: 703.340.1661

E-mail: rsweetser@exergypartners.com E-mail: jhuber@nora-oilheat.org

Applications will be evaluated by a Technical Evaluation Panel of NORI members and outside technical/financial experts, with funding decisions expected approximately six weeks after the proposal due date. The review will involve a comparative evaluation of the criteria in Appendix D.

Proposers must submit twelve (12) copies of the proposal with a completed and signed Proposal Checklist, one of which must contain an original signature, attached to the front of each copy. Proposals must be clearly labeled on the outside of the package as follows:

PON No. 2006 NORI 600 Cameron Street Alexandria, VA 22314

^{*} Proposals will not be accepted by fax or e-mail. Late proposals, and proposals lacking the appropriate completed and signed Proposal Checklist, will be returned. Proposals will not be accepted at any other location, other than that specified above. If changes are made to this solicitation, notification will be posted on NORA's web site at www.nora-oilheat.org

The Oilheat/Bioheat industry came together, on June 3 and 4, 2014, to lay the foundation for the next five years of RD&D. Fifty-eight industry experts¹ were invited to Brookhaven National Laboratory. These individuals included senior engineers, research scientists, oilheat professionals, mangers of retail and wholesale oil companies.

The home heating/energy market is undergoing yet another revolution. Fuels are changing, new government policies are rewriting the rules, and customers are expecting more from their home energy systems and suppliers. The industry believes that the move to Bioheat and a robust RD&D program over the next five years will stabilizes the industry's customer base and further position the industry as an integral part of America's sustainable and resilient energy future.

At the Brookhaven workshop, the research accomplished to date by NORA was reviewed. Additionally, the groups assessed industry needs, developed and prioritized topic areas for RD&D, and developed and prioritized an initial RD&D project list and approved a framework for ongoing RD&D program management. The results of this work will lead to the development of a Project Opportunity Notice that will be posted in September to seek research, development and projects for NORA funding. The Summit participants also reviewed NORA's RD&D management framework for the next five years.

Table 1 presents the prioritized research topics forthcoming form this meeting of subject matter experts.

¹ Oilheat dealers, wholesalers, equipment manufacturers, DOE, NYSERDA, biodiesel suppliers, biodiesel blenders, academia, and trade media

Table 1: Research Prioritization

Table 1: Research Prioritization		1	1
Research Topic		Priority % In Topic	Priority % of Total
Develop Powerful Fuel Use Tracking/Savings Toolssimple to use with wide adoption goal	17	50%	8%
Combustion Monitoring	16	41%	7%
Quick Low Cost Method to Assess Fuel Quality (including % Bio)	14	50%	6%
B-100 Burner	14	33%	6%
FSA Calculator/NORA Stamp of Approval/IBR-Like Testing	12	38%	6%
Develop virtual "Smart Meter" Technology for Instant Results & More Efficient Deliveries	12	35%	6%
Novel Atomization Technical Feasibility	11	26%	5%
Technical/Climate Change Info to State Energy Offices/Stakeholders	10	25%	5%
Address the Myths with: Technical Data Sheets/Handouts to: Real Estate Community, AHJs (Authority Having Jurisdiction: Fire Marshals, Inspectors, etc.), Insurance Companies, Customers, Blenders, Students, Environmental Groups (NRDC, Sierra Club)	10	25%	5%
Modulating Burners	9	21%	4%
Best Practices Manual - Q.C. Programs, Housekeeping - Water/Contamination, I.D. Characteristics	8	29%	4%
Technical Work for Higher ASTM Spec than 20%	8	20%	4%
Sensors/Diagnostic Tools	8	19%	4%
Self-Powered Systems	7	18%	3%
Emerging Issues Assessment Lubricity, Corrosion, ULSHO, etc.	6	21%	3%
Use High Production Gas Designed Heat Exchangers	6	19%	3%
Common Language	6	15%	3%
NORA Advanced Tech. Monitoring	6	15%	3%
Cloud Point/Coldflow Info and Specs	6	15%	3%
Make FSA More Useful	5	15%	2%
Tankless Coil Cost Analysis Options to Improve Efficiency	4	13%	2%
Self-Learning Systems	4	10%	2%
Target 50% by 2030, 100% by 2050	4	10%	2%
Flue Gas Dilution Venting System for Near or Fully-Condensing Equipment	3	9%	1%
Oil-fired Whole House Generator	3	9%	1%
Retrofit Options: e.g. flue gas economizer, controls, etc.	2	6%	1%
Extended Service Times	1	3%	0%
Low Cost System Components	1	3%	0%
Strategic Partnerships to Develop More Oils/Fats - New Sources	1	3%	0%
Scientifically Capture Field Data over B20	1	3%	0%
CFD	1	2%	0%
Permitting for B100 Tanks/Less Spill Impacts	0	0%	0%
Low Cost Near-Condensing Boilers	0	0%	0%
Listing Barriers	0	0%	0%
ULS Specific Heat Exchangers	0	0%	0%
Response to Modulation	0	0%	0%
Validating Retrofit Options	0	0%	0%
Printed Heads	0	0%	0%

I. PROGRAM INTEREST AREAS

Category A: Fuel use/tracking

Background:

Measurement and analysis tools for improved fuel use monitoring are sought. Fuel use monitoring is useful in optimizing delivery planning, analysis of the impacts of equipment upgrades and other energy efficiency measures, and identifying potential fuel leak conditions. Products to be developed may include accurate fuel tank level sensors, run-time monitors or other sensor devices or software products to analyze fuel use, provide K-factors, and signal delivery needs.

In prior development efforts, concepts have been developed which monitored run time remotely. Products have also been developed which measure pressure in the fuel supply line in a one-pipe system. Pressure during burner off periods provided information on fuel tank level.

References:

1. Henderson, H., Dentz, J. and Doty, C., Verifying a Simplified Fuel Oil Field Measurement Protocol, U.S. DOE Building America Program report, July, 2013.

Category A projects may address:

Products which can be installed in a home and provide real time information on fuel use via phone or internet connection. Such products could be installed temporarily for use in an energy efficiency study or could be an integrated part of a larger heating system monitoring concept. Software tools which provide fuel use analysis are also of interest and this may be on-line tools or programs. Unique sensor concepts for determining fuel level or use are of interest. Monitors which provide alarm signals when tank levels are low are not of interest.

Category B: Combustion monitoring

Background:

With increased interest in low cost tools for enhanced efficiency of service operations, improved sensor concepts are sought which can provide diagnostics on oil burner conditions. Such information can be used to indicate burner systems which are likely to require service in the near future. This information can also be used to indicate the likely nature of a burner fault, leading to pre-planning of repair services needed. Measurements may be used locally or as part of an on-line service management system.

In prior efforts flame optical diagnostics, burner power draw, optical flue gas smoke number measurements, instack CO and oxygen monitoring, and ignition delay have been explored for combustion monitoring.

Category B projects may address:

The development of unique measurement concepts for oil burner combustion monitoring. Projects do not need to address ways that the measurements can be used (communication or display links) but rather are expected

to focus on the development of very cost effective sensor and diagnostic concepts.

Category C: Fuel Quality Assessment

Background:

Fuel quality-related issues have long been the most important part of oil-fired heating system service requirements. Fuel marketers, at the retail level, have limited measurement tools available to rapidly identify the quality of the fuel they are delivering. A range of instrument options, including portable FTIR analyzers, are commercially available (e.g. www.compass-instruments.com) but not commonly used in the heating oil market. Instrument cost and typical retail marketer company size are factors which affect this. Lower cost, monitoring tools for contamination levels have also been offered in the past.

Category C projects may address:

Novel fuel quality evaluation products. Projects may also address the development of fuel quality evaluation programs which may include a combination of rapid on-site evaluation tools, "shared" local instrumentation arrangements, and rapid-response laboratory evaluation. Part of any project may include laboratory validation of field fuel quality measurement tools.

Category D: B-100 burner

Background:

The heating oil industry has a strong interest in enabling the use of biodiesel to displace petroleum. Currently, B-5 (5% blends of biodiesel in heating oil) are formally accepted as equivalent to heating oil. Some marketers are using B-20 blends across their entire customer base. Some other marketers are using, on a limited basis, biodiesel blends up to B-100. The burners currently in widespread use are not approved under UL standards for biodiesel blends beyond the standard 5%. The goal of this category is to eliminate the burner limitation as a barrier to widespread use of higher biodiesel blends by supporting the commercialization of a burner listed to use any blend level up to B-100. ASTM D6751 defines the biodiesel which would be used in any fuel blend and is expected to be the basis for the listing approval.

Currently we are aware of one home oil burner which has been developed and listed for use with blends up to B-100. This burner is not in large volume production.

Category D projects may address:

The development and commercialization of a home oil burner, fully approved for use with biodiesel blends up to B-100. The burner should be developed as a replacement for the current generation of oil burners and so, is expected to have a fixed firing rate and meet the same performance parameters and reliability level as current systems. Use of components very similar to those in current burners is expected to improve market acceptance but is not mandatory. Pump dry lift, time-to-prime, resistance to vent system transient and steady state backpressure, and startup smoke emissions should be considered. Burner cost, industry engagement, and commercialization plan should be addressed in the proposal. Advanced features such as modulation or two stage firing are not excluded but there is concern about their cost and market acceptance factors.

Category E: Remote Analysis Technologies Background:

There is broad interest in technologies for remote monitoring, diagnostics, and control of heating systems. This includes communicating thermostats, burner primary controls, and aquastats along with potentially other home systems such as air conditioning and alarms. These systems can provide on-line customer service management, delivery optimization, optimize space heat and domestic hot water temperature settings to enhance efficiency, implement on-line outdoor reset incorporating weather forecasts, enable right-sizing of future systems more efficiently and accurately than a heat loss exercise, enable continuous deployment of advanced algorithms, and implement demand side management for cooling systems. This is a field which is evolving rapidly but which needs demonstrated and documented energy savings information to enhance acceptance.

Category E projects may address:

Field demonstration of concepts for remote monitoring, diagnostics, and control of heating systems. The projects may include a limited amount of product development but are expected to focus on demonstration of

existing platforms and documentation of performance and energy saving potential. A key part of these products is expected to be the web interface and it is expected that service organizations (one or more) will be engaged in this project to provide feedback on utility and market potential.

Category F: Atomization technology Background:

Current oil burners use simplex swirl atomizers operating at fuel pressures ranging from 100 psi to 150 psi. These atomizers have a long history of reliable operation and low cost with a fixed firing rate. The most common oil burner firing rate is in the range of 0.65 to 0.85 gallons per hour. In newer, low heat loss homes lower firing rates are needed to meet the peak space heat demand ~ 0.1 to 0.4 gallons per hour. Lower firing rates would also enable new product concepts such as room space heaters. Recently, manufacturers of simplex nozzles have offered new products with firing rates as low as 0.25 gph. Traditionally there has been concern about plugging and blockage with such small nozzles. A recent study at BNL has shown such small nozzles to operate reliably if high thermal stress following burner shut-down is avoided.

The overall goal of this category is to enable exploration of new concepts which provide both low firing rates and modulation with reasonable product cost. Atomization quality meeting or exceeding the performance of current simplex swirl atomizers is expected. Many atomization technologies have been explored including two-pressure pumps, modulation with pulsed fuel delivery, air atomization, spinning head, and vaporization/air premixing concepts. It is recognized that novel atomization concepts are key to enabling future oil burner products.

Category F projects may address:

Under this category, novel atomization / fuel preparation concepts can be proposed for further evaluation as a step prior to burner development. The focus should be on evaluation of system cost and power consumption requirements. The construction of atomizer prototypes and drop size distribution measurements may be included. Under this category, integration with burners for commercialization is not requested. If an atomization concept, based on the work completed under this category, is shown to have strong potential, a follow-on project which may include a burner manufacturer, is expected. As appropriate proposals, may include limited combustion demonstrations. Atomization concepts which are already developed and considered "ready" for burner integration and commercialization are not invited under this category. Future NORA PON's are expected to call for advanced, integrated burner development. Projects under this category, in this PON are expected to be smaller, proof-of-concept activities.

Category G: Tankless Coil Boilers with High Annual Efficiency Background:

Tankless coil boilers have long been a dominant product offering. These systems have the advantages of relatively low cost, good performance during the heating season, and small space requirements. The major drawback of tankless coil boilers has been high fuel use during non-heating seasons due to a need to maintain the boiler at high temperature to meet expected domestic hot water loads essentially instantly. With tank type

water heaters (direct or indirect) setpoints are typically in the 130 F range. In tankless coil boilers, during the non-heating seasons, it is not uncommon for the boiler temperature to be maintained in the 170-200 F range to deliver consistent domestic hot water at just 130. Factors which contribute to this high temperature include heat exchanger coil size, coil fouling over time, and non-uniform distribution of temperature within the boiler (local cold sections). High boiler temperature leads to very high off-cycle losses. In some incentive programs, tankless coil boilers have been explicitly excluded.

Having a low cost, high annual efficiency tankless coil boiler product could create a retrofit market as well as new customer options.

Recently, BNL has been involved with field tests of a new commercial control concept which maintains a tankless coil boiler at a low temperature until there is a demand period. Approaches like this could dramatically reduce idle losses. Beyond controls, other concepts which could contribute to high annual efficiency in a tankless coil boiler include: larger coils, better boiler jacket insulation, high combustion efficiency, flue dampers, forced boiler water recirculation during hot water draws, and integration of an external plate type heat exchanger to allow lower setpoints.

Category G projects may address:

Development of a low cost tankless coil product which seeks to achieve low idle losses and high annual efficiency while meeting domestic hot water demand expectations of the market. The product should be sized for potential retrofit to existing homes. To gain market acceptance, clear documentation of the performance of this system will be needed.

Category H: Other New Ideas

Background: NORI encourages new ideas. Category G is designed to capture new ideas, products and advanced diagnostics not previously identified in Categories A-F above. Some ideas for consideration include low electric power heating systems with battery backup, microCHP concepts, novel end use appliances based on liquid fuels, novel renewables integration concepts, high efficiency/low idle loss tankless coil boilers, and new emerging biofuels.

General References – A series of conferences "Oil Heat Technology Conference and Workshop" held at Brookhaven National Lab, provides some useful background for all topics. These can be downloaded from www.osti.gov/scitech. Also recommended is the website of OWI, a german research organization involved with oil heat technology development http://www.owi-aachen.de/en/

II. PROGRAM REQUIREMENTS, PROPOSAL FORMAT, PROPOSAL EVALUATION

Project Scope – Proposals must:

- Address energy- and environment-related challenges.
- Provide quantifiable energy, environmental, and economic benefits.
- Emphasize development of marketable products rather than basic research.
- Provide a summary discussion of the commercialization path appropriate to the stage of development of the proposed technology. Note that, even in early stage projects, initial projections of commercialization (or technology deployment) paths and challenges are essential to assessing benefits, risks, and future resource requirements.
- Provide cost-sharing by the proposer or third parties:
 - In the form of cash or in-kind labor, materials, equipment, facilities, and other resources, subject to reasonable and verifiable valuation. Cost-sharing may be from the proposer or other private or government sources. NORI's funds cannot be used to reimburse or replace normal expenses of other government organizations.
 - Equal to at least 20% of the total project cost. The quality of the proposer's cost- sharing will be examined during the proposal evaluation process. Cash, labor, and materials are considered superior to other types of cost-sharing. The type of cost-sharing offered should be appropriate for the proposer's financial condition and the stage of development of the product/process, i.e, degree of risk. The level of cost-sharing will be considered an indicator of the proposer's commitment to the success of the project.

Project Schedule, Phasing and Teaming – The following guidelines should be considered when developing proposals:

- Projects are expected to begin within six months of the proposal due date. The project schedule, including future phases (beyond the proposed phase) of a multiphase project, should not exceed 36 months.
- Requirements for Multiphase Projects Multiphase projects are acceptable as long as the proposal:
 - Briefly describes all phases along with significant milestones, and provides an estimate of the total cost and schedule for all phases.
 - Proposers shall only request funding for one clearly-defined phase that adheres to the funding limit as described above. The proposer must accept that any contract awarded to fund one phase of a multiphase project does not in any way obligate NORI to fund later phases. Funding requests for additional phases may need to be submitted under a future PON for competitive evaluation.
- Teaming arrangements are encouraged, where appropriate, to enhance the likelihood of project success. Teams may include commercial firms, industry associations or research organizations, universities, government agencies, end-users, and other stakeholders. Include letters of interest or

commitment from each identified team member in an appendix to the proposal.

Other Requirements:

- A proposal may be considered non-responsive if it fails to comply with the requirements above, the Proposal Format (below), or the General Conditions of Section III.
- Prior to an award being made, potential contractors may be required to demonstrate: access to financial resources sufficient to perform the proposed work; technical experience and adequate facilities (or the ability to access them); a good performance record and; the ability to qualify for an award under applicable laws and regulations.

Proposal Format:

Total proposal length should be 16 pages or less, plus letters of interest or commitment in an appendix. The contract pricing proposal or budget is not included in this page limit. Suggested page limits for each section are provided below in parentheses. Rigid bindings and other elaborate presentation material should not be used – a staple in the upper left corner is preferred. Your goal as a proposer should be to concisely present the information needed to fully address the evaluation criteria (in this section, below). Proposals that exceed the page limits may be rejected as non-responsive.

Each proposal must include the items listed below and should present the items in the sequence indicated.

A. Proposal Checklist – Complete and sign the specific Proposal Checklist attached as part of this PON, and include it as the front cover of the original and each copy of the proposal.

Note the following:

- Indicate whether you accept the standard terms and conditions as contained in the attached Sample
 Agreement. If you do not accept the standard terms and conditions, provide alternate terms with
 justification based on the risk and benefit to NORI.
- Be sure the individual signing the Proposal Checklist is authorized to commit the proposer's organization to the proposal as submitted.

B. Proposal Sections – Sections of your proposal should be as follows:

- **1. Executive Summary** (one page) Briefly summarize your proposal, emphasizing:
 - The problem or opportunity being addressed, and its significance, and its relevance to this PON.
 - Your proposed solution and how it will solve the problem or exploit the opportunity.
 - A list of the project team members and their qualifications to do the work.
 - Benefits if the project is successful. Include an estimate of market potential and quantify the energy, environmental, and economic benefits to the extent possible.

• User economics. Provide an estimate of the price of the product, process or service that eventually will be commercialized and the price(s) of relevant alternative products or services. Briefly explain the customer's economic motivation for buying the new product, process or service, versus alternatives.

2. Problem Statement and Proposed Solution (two pages) – Describe:

- The problem or opportunity being addressed, and its significance, and its relevance to this PON.
- Your proposed solution and how it addresses the problem or opportunity, its technical basis, innovative characteristics, and current stage of research and development.
- Economic and performance comparisons to competing technologies.
- If this proposal addresses a subsequent phase of a previously funded NORI project, the results of the earlier phase(s) and current project status.

3. Proposed Work Scope and Schedule (three to four pages) – Provide:

- Technical or performance goals for proposed product, process or system.
- A list of major tasks to be accomplished and a three- or four-sentence description of each. Typical task
 titles may include, but are not limited to, the following: project management and reporting, requirements
 definition, preliminary design, fabrication, testing, final design, and demonstration. (Note: NORI will
 expect to receive written progress reports and a final report, and have occasional project meetings, as
 part of the project management task. These activities should be considered when developing your cost
 estimates.)
- The duration of the project and timing of major milestones, such as design reviews, test result reviews, completion of working prototypes, and the start of metrics reporting to NORI, showing progress toward project objectives and goals.
- If applicable, a brief description of additional phases, beyond the proposed work, that will be necessary to fully achieve commercialization, and their anticipated duration.

4. Proposer Qualifications (two to four pages, depending on team size) – Identify:

- Proposer and any other team members and major subcontractors. Provide a chart showing the relationship between team members.
- Project Manager and other key individuals.
- Qualifications of all organizations and individuals named above, including relevant experience and references.
- NORI contracts awarded to the proposer, if any, in the past five years.

5. Project Benefits (two pages) – Outline benefits as follows:

- Quantify the following direct benefits to the extent possible:
 - Energy benefits (e.g.: fuel economy impacts versus alternate technologies);
 - Environmental benefits (e.g.: emission reductions, elimination of hazardous materials, etc.)
 - Economic benefits (e.g.: manufacturing jobs or technical services jobs created or retained, lifecycle cost reductions, etc.)
- **Identify** other benefits (e.g.: lowering the cost of compliance with regulations, reducing the probability of equipment failure, etc.)
- Describe how the success of the project can be measured or verified, and how and for how long these
 metrics will be provided to NORI.

6. Commercialization Plan (Two to three pages)

Describe how project results will be commercialized or deployed. Projects nearing a demonstration phase should have a detailed commercialization plan, whereas an early-stage concept should be accompanied by at least a rough outline of how the concept may ultimately be deployed. Cover the following topics:

- Project Roadmap: Provide a multi-year timeline (e.g., graph) showing the paths, activities, milestones, resources, and timing to take the technology from its current state of development to commercial deployment.
- Marketing: Identify target markets and their characteristics, e.g., size, competition, trends (regulatory, technological, etc.); describe your proposed marketing strategies, explain why they should be successful, and provide sales estimates. Provide an estimate of the price of the product or service that eventually will be commercialized and provide a comparison of that price to competing products or services.
- **Briefly explain** the customer's economic motivation for buying the new product or service, versus alternatives.
- Design & Production: Describe remaining technical development steps leading to start of
 manufacturing or deployment. Describe plans for setting up facilities for manufacturing or other
 deployment activities. Discuss any key issues such as: need for specialized production equipment or
 strategic alliances; critical make/buy decisions or cost/volume issues; and, plans for ancillary activities
 such as service support functions.
- **Finance:** Estimate funds required to go from the current stage of development to a financially self-sustaining level of commercialization; include funding for R&D and initial marketing and manufacturing/deployment programs. Identify potential funding sources and how those sources will be addressed. Identify any potential strategic partners who could reduce your costs by providing access to marketing/distribution channels, manufacturing facilities or other assets.
- Organization Plan: Describe staffing plans for transitioning from R&D stage to commercialization stage; include all organizational functions, such as management, administration, engineering, marketing/sales, and manufacturing.

- **Technology Transfer:** Describe any other actions to promote the new technology, such as the presentation of technical papers.
- **7. Budget** A Contract Pricing Proposal Form (CPPF), with associated instructions, is provided as an attachment to this PON. A CPPF Excel spreadsheet is available on the NORA website. Each proposal must include a completed CPPF and also a cost-sharing table identifying the allocation of funding by task. Use the following format (expand table as needed):

Cost-Sharing Table:

Funding Source	Task 1 (\$)	Task 2 (\$)	 	Project Total (\$)
NORI				
Proposer				
Co-Funder(s) (identify)				
Task Total (\$)				

The proposal must show the proposer providing **co-funding of at least 20%** of the total cost of the project. This co-funding can be from the proposer, other team members, and other government or private sources. Contributions of direct labor for which the laborer is paid, and purchased materials, may be considered "cash" contributions. Unpaid labor, unbilled labor by employees of government or professional organizations, and overhead expenses are typically offered as "in-kind" contributions.

- **8. Appendices** Include any resumes, company qualifications, or ancillary information deemed necessary to support your proposal. If appropriate, also include:
 - Letters of Interest or Commitment If you are relying on any other organization to do some of the work, provide services or equipment, or share in the non-NORI cost, include a letter from that organization describing their planned participation. Also include letters of interest or commitment from businesses or other organizations critical to the future commercialization, demonstration, or implementation of the project. Absence of letters of interest or commitment will be interpreted as the proposer not having support from the identified parties.
 - Exceptions to the Terms and Conditions If you do not accept the standard terms and conditions as contained in the attached Sample Agreement, provide alternate terms with justification based on the risk and benefit to NORI.

Proposal Evaluation:

Proposals will be reviewed by a Technical Evaluation Panel (TEP) and will be scored and ranked according to the following criteria, **listed in order of importance**. After the proposals are reviewed, NORI will issue a letter to each proposer indicating the proposal evaluation results. Proposers receiving favorable evaluations will be invited to enter into contract negotiations with NORI. Such proposers will be required to submit a detailed statement of work, budget, and schedule, and may also be asked to address specific questions or recommendations of the TEP before contract award.



III. GENERAL CONDITIONS

Proprietary Information - Careful consideration should be given before confidential information is submitted to NORI as part of your proposal. Review should include whether it is critical for evaluating a proposal, and whether general, non-confidential information, may be adequate for review purposes.

Contract Award - NORI anticipates making multiple awards under this solicitation. It may award a contract based on initial applications without discussion, or following limited discussion or negotiations. Each offer should be submitted using the most favorable cost and technical terms. NORI may request additional data or material to support applications. NORI will use the Sample Agreement to contract successful proposals. NORI expects to notify proposers in approximately six weeks from the proposal due date whether your proposal has been selected to receive an award or will require further consideration.

Limitation - This solicitation does not commit NORI to award a contract, pay any costs incurred in preparing a proposal, or to procure or contract for services or supplies. NORI reserves the right to accept or reject any or all proposals received, to negotiate with all qualified sources, or to cancel in part or in its entirety the solicitation when it is in NORI's best interest.

Disclosure Requirement - The proposer shall disclose any indictment for any alleged felony, or any conviction for a felony within the past five years, under the laws of the United States or any state or territory of the United States, and shall describe circumstances for each. When a proposer is an association, partnership, corporation, or other organization, this disclosure requirement includes the organization and its officers, partners, and directors or members of any similarly governing body. If an indictment or conviction should come to the attention of NORI after the award of a contract, NORI may exercise its stop-work right pending further investigation, or terminate the agreement; the contractor may be subject to penalties for violation of any law which may apply in the particular circumstances. Proposers must also disclose if they have ever been debarred or suspended by any agency of the U.S. Government, State or local jurisdiction.

Attachments

Attachment A - Proposal Checklist

Attachment B - Sample Contract Pricing Proposal Form and Instructions

Attachment C - Evaluation Criteria in Order of Importance

Attachment D - Sample Agreement (Contract Terms and Conditions)

Attachment A: PROPOSAL CHECKLIST

Proposal Title		Due Date			
Primary Contact (Prime Contractor)		Title			
Company		Phone	Fax		
Address	City	State or Province	Zip		
e-mail address					
Secondary Contact		Title			
Company		Phone	Fax		
Address	City	State or Province	Zip		
e-mail address					
The prime contractor must sign this form below					
THE PRIME CONTRACTOR MUST ANSWER	THE FOLLOWIN	G QUESTIONS:			
Yes No Have you been indicted/convicted for a felony v Yes No Are you submitting the required number of copi Is other public funding pending/awarded on this proposals)? Yes No (if yes, explain on se	Have you been indicted/convicted for a felony within the past 5 years? (if yes, explain on separate pg) Yes No Are you submitting the required number of copies? (See proposal instructions.) Yes No Is other public funding pending/awarded on this and/or very-similar topic (prior and/or competing proposals)? Yes No (if yes, explain on separate page) Have you retained, employed, or designated any person or organization to attempt to influence the				
ON WHAT PAGE IN YOUR PROPOSAL CAN	THESE ITEMS B	E FOUND?			
Executive Summary Commercialization Plan Problem Statement and Proposed Solution			oposal		
Project Benefits organizations					
AUTHORIZED SIGNATURE					
I certify that the above information is accurate, and that the proposal requirements noted have been completed and are enclosed. I understand that this proposal may be disqualified if the solicitation requirements are not met. I the undersigned am authorized to commit my organization to this proposal.					

Signature	Name
Title	Organization
Phone	Date

NOTE: This completed form **MUST** be attached to the front of all copies of your proposal.

Attachment B: Contract Pricing Proposal Form

National Oilheat Research Institute			PON No. / 0	Category	Page
Contractor:			Name of Pro	oposed Proje	ct:
Address:					
Location (where work is to be performed):		NORI fundir	ng:	
			Total Project	t Cost:	
			Total	NORI	Cost-sharing
			Project	Funding	& Other Co-
Cost Element			Cost	Requested	funding
1. Direct Materials					
a. Purchased Parts					
b. Other					
Total Direct Materials					
2. Materials Overhead					
Rate:					
3. Direct Labor (specify names/titles)	Hours	Rate/hr			
Total Direct Labor					
4. Labor Overhead	Rate %	\$ Base			
	<u> </u>				
Total Labor Overhead					
5. Outside Special Testing					
6. Equipment					
7. Travel					
8. Other Direct Costs					
9. Subcontractors/Consultants					

Total Subcontractors/Consultants					
10. General & Administrative Expense	Rate %	Element(s)			
11. Total Estimated Project Cost					
This proposal reflects our best estimate	s as of this c	late, in accorda	ance with the	instructions t	o proposers.
Typed Name and Title:		Signature:			Date:
Has any executive agency of the U.S. g	overnment p	erformed any i	review of you	r records in c	onnection
with any prime contract or subcontract v	within the pas	st twelve month	ns? Yes	SNo If y	es, identify:

	Schedule - Contract Pricing Proposal Form	
Element		
No.	Item Description	Amount



Instructions for Preparation of Cost Estimate

Your cost proposal may be the basis of contract negotiation; it should be specific and complete in every detail. Supporting schedules (as described in Section B) providing the basis for your estimates must be provided.

A. GENERAL

The schedule must be submitted on NORI's Contract Pricing Proposal Form.

B. INSTRUCTIONS AND DESCRIPTION OF REQUIRED SUPPORT DETAIL

(Title each supporting schedule and cross-reference it to the item number on the Contract Pricing Proposal Form)

1a. DIRECT MATERIALS - PURCHASED PARTS

Provide the following information for each proposed item with an estimated unit cost in excess of \$5,000.

- Description of item
- Proposed vendor
- Quantity needed
- Unit cost
- Basis for cost (i.e., catalog, prior purchase, quote, etc.)
- Total cost
- Evidence of a competitive selection process

1b. OTHER DIRECT MATERIALS

For all items in excess of \$5,000, provide whatever information would be necessary to understand what is being obtained, how it is being obtained, what it will cost and how the estimated cost was determined with justification for all items.

2. MATERIALS OVERHEAD (also applicable to other Indirect Rate categories: 4. LABOR OVERHEAD and 10. G&A EXPENSE)

- If Government-approved indirect rates are proposed, the n supply a copy of an appropriate Government document verifying those rates.
- If Government-approved rates are not proposed, supply the following, unless previously provided, for the years comprising the proposed period of contract performance.
- A description (chart or other) of the organization of the indirect cost center.
- The budget of indirect costs, by account, for each proposed indirect expense rate.
- The budget for the base, for each proposed rate, (direct labor dollars, hours, costs, etc.) itemized as to contract hours or costs, research and development hours of costs, and any other direct base effort.
- Actual incurred rates for the prior three years, including actual base and pool amounts.

- 3. DIRECT LABOR
- a. Commercial Enterprises
- (1) Attach supporting schedules showing:
 - Each category or type of labor being estimated
 - Applicable labor rates per hour (straight-time)
- (2) Explain the method used for computing the rates (i.e., actual of an individual, actual average of a category or other grouping, etc.) Also identify any proposed labor escalation and the bases for it.
- b. Educational Institutions

Pro vide the following for each calendar year of the contract:

- (1) For individuals not on an "actual hours worked" basis:
 - individual's name
 - annual salary and the period for which the salary is applicable (preferably in week s)
 - the proportionate time to be charged to this effort.
- (2) For individuals who maintain time records as the basis for charging costs, supply the de tail as requested in Instructions 3(a)(1)

4. LABOR OVERHEAD (Same as Instructions for 2. MATERIALS OVERHEAD)

OUTSIDE SPECIAL TESTING

- a. Describe the effort.
- b. Provide the units of time (hours, days, weeks), cost rates, and the vendor.
- c. In accordance with the requirements of Section 5.02 of the attached Sample Agreement, provide the basis for selection of the vendor. Explain and justify the basis for any non-competitive selection.

6. EQUIPMENT

Capability to perform the work with existing facilities and equipment is assumed. It is NORI's policy not to compensate for general purpose facilities or equipment. If some special purpose item s are needed solely for this contract and a e not available by other means (contractor assets, lease, etc.), then provide the following information for each item of required equipment.

- vendor
- model number
- quantity
- competitive selection process
- unit cost and source of cost/price (i.e., quote, catalog, purchase history)
- description of the use or application (NORI dedicated, contract dedicated, other)

7. TRAVEL

- a. NORI will accept as a direct charge only that travel required to perform the statement of work.
- b. Attach a schedule indicating the need for the proposed travel, the estimated number of person-trips required, destinations, mode and cost of transportation, and number of days subsistence per trip for each destination.
- c. Identify and support any other special transportation costs required in the performance of this project.

8. OTHER DIRECT COSTS

- a. Identify the type of cost (i.e. postage, telephone, publications, graphics, etc.)
- b. Provide cost details for the amounts estimated (hours or u nits, rates, etc.)
- c. For computer costs identify the make, model and type of computer, hours of service and appropriate rates, and whether the machine is company owned or leased.

9 SUBCONTRACTORS/CONSULTANTS

- a. Exp lain the specific technical area in which such service is to be used and identify the contemplated consultants.
- b. State the number of days and the hours per day of such service estimated to be required and the consultant's quoted rate per day. Document when/where the consultant has received the proposed rate in performing similar services for others.
- 10. GENERAL & ADMINISTRATIVE (G&A) EXPENSE (Same as instructions for 2. MATERIALS OVERHEAD)

Attachment C - Evaluation Criteria in Order of Importance

- 1. Problem/Proposed Solution/Scope
- How significant is the problem or opportunity?
- Is the proposed project likely to solve the problem or exploit the opportunity?
- Is the proposed work technically feasible, innovative, and superior to
- alternatives?
- Is the work strategy sound?
- 2. Project Risk
- Will the project result in a product, standard or process that will be on the market within three years?
- List key issues to be overcome.
- · What is the likelihood of success?
- What is the likelihood of success within the project timeframe?
- 3. Proposer(s)
- To what degree does the team have relevant and necessary technical and business background and experience?
- How firm are the commitments and support from essential participants, cofunders, and related businesses and other organizations?
- 4. Project Outcome/Commercialization Strategy and Cost
- Is the overall project cost justified based on the expected benefits?
- Relative to the project cost, how significant is the potential market or deployment opportunity?
- Is the implementation or commercialization strategy well-conceived and appropriate for the stage of development?
- How appropriate are the proposer's co-funding contributions (sources and amounts) with respect to the degree of risk, potential to benefit from the work, and financial status of the organization?

Other Considerations – Proposals will be reviewed to determine if they reflect NORI's overall objectives, including: risk/reward relationships, similar ongoing or completed projects, the general distribution of NORI projects among the Oilheat industry and other organizations.

Attachment D: Standard Contract

GRANT AGREEMENT

This GRANT AGREEMENT ("Agreement"), is made this day of 2006 by and between the National Oilheat Research Institute, Inc., a District of Columbia non-profit corporation, whose address is 600 Cameron Street, Suite 206, Alexandria, VA 22314 ("Institute") and an (state) (type of entity) whose address is ("Grantee"), and shall govern the performance, services and other activities required under this Agreement. The Institute and the Grantee are hereinafter referred to collectively as the "Parties" and individually as the "Party."
RECITALS
A. Pursuant to the National Oilheat Research Institute Act of 2000 (the "Act"), Title VII of Public Law No. 106-469, the Institute is required to develop programs and complete projects for the purpose of enhancing consumer and employee safety and training on the use of heating oil; ensuring the performance of productive research focused on the development of clean and efficient heating oil utilization equipment; and informing and educating the public about safety and other issues associated with the use of heating oil.
B. In furtherance of the development of such programs and projects and the Act's statutory mandate, the Institute desires to provide funding to the Grantee, and the Grantee desires to accept such funds from the Institute, all in accordance with the terms and conditions contained in this Agreement.
NOW, THEREFORE, in consideration of the mutual covenants and conditions set forth in this Agreement, the sufficiency of which is hereby acknowledged, the Institute and the Grantee hereby agree as follows:

1. Scope of the Work.

- 1.1. The Grantee shall furnish and perform for the Institute all of the research and other professional services required by the terms and conditions of this Agreement as well as the instructions, specifications, exhibits and other documents referenced herein or attached hereto, including, but not limited to, the services and work to be fully performed as set forth in Exhibit A ("Project"). This Agreement, all exhibits hereto and all referenced documents and requirements are hereinafter referred to collectively as the Agreement or the "Transaction Documents." All services, research and work-product required to be completed under this Agreement and the Transaction Documents (including work required by change orders) shall be referred to herein as the "Work." The requirements of this Agreement shall be broadly construed to ensure that the services, research and Work meets applicable industry standards for professional services and work of the same or a similar nature and that such work complies in all respects with the terms of the Transaction Documents. Without exception, the Grantee shall provide all of the services and perform all of the Work proposed in Exhibit A; and Grantee shall do so in accordance with and in the manner prescribed by this Agreement and as required under federal, state and local laws.
- 1.2. The Scope of Work is not intended to limit the Grantee's ability to incorporate unique or beneficial features into its Work. Variation from the Scope of Work will be considered by the Institute, if the proposed change is within the Agreement budget limitations, meets the objectives for the Agreement and results in an improved Work product. All proposed Changes (defined in Article 12) in the Scope of Work must be approved in accordance with Article 12.
- 1.3. This and all other Transaction Documents are intended to supplement and complement each other and shall, where possible, be thus interpreted. If, however, any provision of the Agreement or Transaction Documents irreconcilably conflicts with another provision, the provision imposing the greater duty or obligation on the Contractor shall govern.

2. General Performance Obligations.

- 2.1. Work and Capabilities. In completing the Work required under this Agreement, including any permitted modification, the Grantee shall provide all management, supervision, manpower, administrative support, insurance, materials, supplies, know-how, technology, equipment and all other materials and services, and shall plan, exhibit, coordinate and ensure effective and timely performance of all specified services within the fixed or other pricing of the Agreement.
- 2.2. Reviews. The Institute's review, approval, acceptance of, or payment for any of the Work required under this Agreement, shall not be construed as a waiver by the Institute of any obligation of Grantee under this Agreement.
- 2.3. Professional Quality. The Grantee is responsible for the professional quality, technical accuracy and coordination of the Work. The Grantee shall, without additional funding, address questions and concerns reasonably raised by the Institute or its agents or representatives and correct or revise errors or deficiencies in the Work furnished under this Agreement or have payment withheld pursuant to Article 15.
- 2.4. Communications. While the Grantee may communicate with other representatives of the Institute, the Grantee shall proceed with Work based solely on the directions, instructions and/or comments of the Institute's Authorized Representative as referenced

- in Article 24 and as otherwise agreed to herein. Before proceeding with any directions or instructions issued by a Party other than the Institute's Authorized Representative, the Grantee shall first obtain the approval and consent of the Institute in writing.
- 2.5. Meetings and Documentation. Throughout Agreement performance, the Institute may require periodic meetings with the Grantee through the Parties' Authorized Representatives for the purposes of discussing Work status, procedures, progress, problems, scheduling, cost issues and other pertinent matters involving the Work, which meeting shall be held at mutually convenient times and places. The Grantee shall attend and participate in such meetings. The Grantee shall also attend meetings where questions or problems arise concerning the Grantee's Work and as otherwise requested by the Institute.
- 2.6. Project Issues. The Grantee shall immediately notify the Institute in writing of any problems, issues, delays or concerns involving its Work. Grantee shall promptly make recommendations concerning solutions, cost controls, scheduling, and levels of effort, while maintaining the approved Agreement completion dates, interim and otherwise. The Grantee shall also promptly advise the Institute in writing of any relevant problems of which it becomes aware which are outside of the Grantee's Scope of Work or Agreement requirements and subject to the agreement of the parties on the terms under which the additional work shall be performed by the Grantee shall offer solutions for such problems, and follow-up as required by the Institute.
- 2.7. Data Collection, Analysis, Recommendations and Deliverables. Grantee shall have the sole responsibility to obtain all information required to successfully complete the Work in accordance with requirements under this Agreement. The Grantee's draft Progress Reports (defined in Article 4) and other submissions that are required to be delivered under the Agreement ("Deliverables") are to be prepared based on all information available in the relevant scientific communities as well as on appropriate research, surveys, conferences, and factual information from other data sources.
- 2.8. Interactions and Proceedings. The Grantee shall establish all necessary liaisons, coordination, and support with any agencies or representatives at the federal, state, regional, and local levels, and as otherwise required by the Institute. The Grantee shall prepare and provide all information and submissions required for approvals by governmental authorities or others having jurisdiction over the Work, except information that the Institute agrees in writing to provide. Unless the Institute provides otherwise in writing, the Grantee shall be solely responsible for actively participating in all such proceedings associated with obtaining such approvals or otherwise complying with all applicable federal, state and local laws, codes and regulations.

3. Grantee Deliverable Procedures.

- 3.1. In performing under this Agreement and as part of the Scope of Work (Exhibit A), the Grantee may be required to submit and deliver certain Deliverables upon request of the Institute, including documents, reports or other tangible evidence that it is completing or has completed the required Work.
- 3.2. All Deliverables by the Grantee shall be on the forms and follow the procedures instructed by the Institute and satisfy the requirements contained in Article 2.

- 3.3. Unless specifically authorized by the Institute, on a case by case basis, all Deliverables shall be computer generated and shall not be handwritten.
- 3.4. If the Institute reasonably determines that any material aspect of a Deliverable is inadequate or incomplete, the Grantee shall make any corrections and/or additions and promptly resubmit the Deliverable to the Institute at no additional cost to the Institute. The Grantee shall submit an action plan indicating ways and means to recover lost time due to Grantee caused delays. Additional time will be granted to the Grantee if it is determined by the Institute that the delay is reasonable; provided the Grantee has prudently exercised all reasonable and economically viable options within its authority and ability to avert such delays.
- 3.5. The Grantee is responsible for properly protecting all Deliverables transmitted to the Institute.

4. Progress and Other Reporting Requirements.

In addition to the periodic meetings between the Grantee's and the Institute's Authorized Representatives referenced in Articles 24, the Grantee shall also submit to the Institute, on a periodic basis reports on progress.

5.	Grant.
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5.1 The Grant.

Task 1

Task 2

Task 3

Etc.

- 5.2 Permissible Uses. The Grant shall only be used for the Work or as otherwise permitted herein. At no time will any portion of the Grant be used by the Grantee for campaign, legislation or other political purpose.
- 5.3 Audit Rights of the Institute Preserved The Institute shall have the right to audit the books of a grant or rebate recipient with respect to the expenditure of funds provided by the Institute.
- 5.4 Return of Unused Funds Immediately following the completion of a project or program funded by the Institute, the grant or rebate recipient shall return any unused funds to the Institute.

6.	Cont	ract	Term.

The Work to be performed	ed under this Agree	ement shall begin	on execution	and shall be finall
completed by	, plus any appl	icable extension	of time granted	d by the Institute.

7. Status and Responsibility of the Grantee and its Personnel.

It is understood and agreed that the Grantee will perform the Work required by this Agreement as an independent contractor and that during the performance of this Agreement, the Grantee's employees will not be considered employees of the Institute within the meaning or

the application of any federal, state or local laws or regulations including, but not limited to, laws or regulations covering unemployment insurance, old age benefits, workers' compensation, industrial accident, labor or taxes of any kind. The Grantee's personnel who are to perform the Work to be provided by Grantee hereunder are and shall be deemed under the employment and ultimate control, management and supervision of the Grantee. It is understood and agreed that Grantee's employees shall not be considered the Institute's employees within the meaning or application of customer/employee fringe benefit programs or for purposes of vacations, holidays, pension, group life insurance, accidental death, medical, hospitalization and surgical benefits. Grantee and its employees and agents shall not represent themselves or hold themselves out as employees of the Institute at any time.

8. Compliance with Law.

The Grantee shall perform all Work in strict compliance with all federal, state and local laws, rules, regulations, standards, codes and other governmental requirements that are applicable to the performance of the Work on the effective date of this Agreement and throughout

9. Environmental, Safety and Health Provisions.

Throughout the performance of this Agreement, the Grantee agrees to comply with: (a) all applicable safety and health protection procedures, laws and regulations of federal, state and local governmental agencies, including but not limited to, OSHA and/or its state or local equivalents; (b) all applicable environmental protection laws, procedures and regulations enforced by federal, state and local governmental agencies including, but not limited to, the U.S. EPA and/or its state or local equivalents; and (c) all of the Institute's bylaws, policies, rules and procedures.

10. Employment and Related Laws.

To the extent applicable as a matter of law to the Work and/or the subcontracting of the Work hereunder, the following provisions are incorporated by reference and the Grantee represents that it will comply with them: The Equal Employment Opportunity Act, E.O. 11246 and 41 C.F.R. §. 60-1.4 and 60-1.7; the Employment of Veterans Act, 41 C.F.R. §. 60-250; and the Employment of Handicapped Act, 41 C.F.R. § 741-4, Drug Free Workplace Act of 1988 (Pub.L. 100-690); Service Agreement Act of 1965, as amended, 41 U.S.C. 351, et seq.; Americans with Disabilities Act of 1990, 42 U.S.C. § 12101, et seq., and such other laws or regulations as the federal government may require the Institute to flow down to its contractors; and all rules and regulations issued pursuant to the foregoing.

11. Protection of the Public and the Work.

The Grantee shall take all reasonable and necessary precautions for the protection and safety of: the public, the Grantees employees, representatives and agents, and all other personnel performing the Work. The Grantee shall take reasonable precautions to protect the Work and the Work of the Institute's other grantees from loss, damage or destruction arising from any act or omission of the Grantee, any subcontractor, or any other conditions affecting the Work.

12. Changes in the Work and Claims.

The Institute's Authorized Representative may at any time request reasonable work changes. The Institute will initiate the change process by providing a written description of the Change to be made by the Grantee on a document entitled "Proposed Change Order." The Grantee shall submit promptly to the Institute a document entitled "Change Order Proposal" itemizing the reasonable and necessary adjustment in the Agreement Price and Agreement

Performance Period to correspond to the Change. If the Institute and the Grantee cannot agree on the appropriate adjustment in the Agreement Price or Agreement Performance Period, the Grantee shall not be required to proceed with the change requested until such dispute is resolved.

13. Grantee's Continuing Obligation.

Neither inspection by the Institute, nor issuance of any payment to the Grantee, termination of this Agreement, nor any provision of this Agreement, statement or conduct of the Institute shall relieve the Grantee of liability for failing to satisfy its obligation under this Agreement or otherwise performing faulty or inadequate services. The obligations under Articles 9, 10, 12, 16, 19, 20, 21, 23, 24 and 28 shall survive completion of the Work and termination of this Agreement.

14. Institute's Right to Terminate Agreement for Cause and Convenience.

- 14.1. Termination for Cause. The Institute may terminate or cancel this Agreement with respect to a project for cause, if: (a) Grantee's performance with respect to such Project does not conform in all material respects to the terms of this Agreement; (b) Grantee fails with respect to such Project to timely and satisfactorily provide its Deliverables or services to the Institute, as time is of the essence under this Agreement; (c) Grantee's material violation of any applicable laws, ordinances, rules, regulations, instructions and/or other Agreement performance requirements; or (d) any question legitimately arises concerning Grantee's financial condition or solvency. Where a basis for termination exists, the Institute will give the Grantee written notice, specifying the cause(s) for such dissatisfaction. If the deficiencies are not corrected to the reasonable satisfaction of the Institute within seven (7) days of the date on which the Institute's written notice was received by the Grantee, or such other greater time period set forth in the Institute's notice, the Grantee will be given written notice of the Institute's termination of this Agreement for cause. Any notice of termination or cancellation shall specify the extent, to which performance under the Agreement is terminated, and the effective termination or cancellation date. Termination of this Agreement with respect to one (1) Project shall not affect the other project, which may only be terminated by the Institute if the Grantee is in default with respect to that other project.
- 14.2. Termination for Convenience. The Institute may, at any time, terminate the Grantee's services under the Agreement for any reason whatsoever or for its convenience by giving the Grantee not less than fifteen (15) days' written notice of termination setting forth the effective date of termination.
- 14.3. Termination by the Grantee. The Grantee shall have the right at any time to terminate this Agreement, with or without cause and without liability to the Institute, upon not less than fifteen (15) days' written notice of termination setting forth the effective date of termination, which notice shall be accompanied by payment in full to the Institute of all amounts previously paid by the Institute to the Grantee pursuant to this Agreement.
- 14.4 Termination Compensation. In the event the Agreement is terminated for cause or convenience, the Institute shall pay to the Grantee the balance due, if any, on the Agreement price for Work actually performed, prior to the effective date of termination. The Grantee shall not be entitled to recover lost profits on uncompleted Work, nor shall the Grantee be entitled to recover any damages (consequential or otherwise), compensation or indemnity of any kind as a consequence of such termination.

15. Payments Withheld.

The Institute may withhold all or part of any payment to the extent necessary to protect the Institute from loss or damage on account of: (a) Defective Work not remedied; (b) Claims filed or reasonable evidence indicating probable filing of claims by third parties against the Grantee or the Institute resulting from Grantee's actions and/or negligence; (c) Failure of the Grantee to make payments properly to subcontractors; (d) Damage to the Work, to the Institute's property; (e) Failure of the Grantee to make satisfactory progress or to meet the established performance described in Exhibit A; (f) The Grantee's violation of any applicable laws and/or other Agreement performance requirements; and (g) Any other penalty, fine, damage or cost incurred or sustained by the Institute resulting from Grantee's actions and/or negligence.

16. Insurance.

16.1 Liability Insurance. The Grantee shall purchase from and maintain in a company or companies lawfully authorized to do business in the jurisdiction in which the Work will be performed insurance that shall protect the Grantee from the claims set forth below which may arise out of or result from the Grantee's operations under the Agreement and for which the Grantee may be legally liable, whether such operations be by the Grantee or by a subcontractor or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable: (a) Claims for workers' compensation, coverage or relief; (b) Claims for damages because of bodily injury, occupational sickness or disease, or death of the Grantee's employees; (c) Claims for damages because of bodily injury, sickness or disease, or death of any person other than the Grantee's employees; (d) Claims for damage insured by usual personal injury liability coverage which are sustained (1) by a person as a result of an offense directly or indirectly related to employment of such person by the Grantee, or (2) by another person; (e) Claims for damages because of injury to or destruction of tangible property, including loss of use resulting therefrom; (f) Claims for damages because of bodily injury, death of a person or property damage arising out of ownership, maintenance or use of a motor vehicle; and (g) Claims involving obligations under the Indemnification Article of this Agreement to the extent Grantee causes personal injury or property damage.

Grantee shall carry adequate insurance in accordance with the statutory requirements or other requirements of the jurisdiction in which the work will be performed. Coverages shall be maintained without interruption from date of commencement of the Work until date of final payment, and termination of any coverage required to be maintained after final payment.

16.2 General Terms and Conditions. The Institute and Grantee shall also be bound by the following terms and conditions: (a) Insurance held or procured by the Grantee at Grantee's sole expense shall not reduce or limit the Grantee's contractual obligations to indemnify and defend the Institute for claims made or suits brought which result from or are in connection with the performance of this Agreement; (b) Before commencing Work on the Project, the Grantee shall provide the Institute with certificates evidencing the Grantee's purchase of all insurance and coverage required by this Agreement; and (c) Acceptance of any certificate of insurance evidencing the insurance coverages and limits required in the Agreement does not constitute approval or agreement by the Institute that the insurance requirements have been met or that the insurance policies shown are in compliance with the Agreement requirements. In case of the breach of this provision, the Institute, at its option, may take out and maintain, at the expense of the Grantee,

such insurance as the Institute may deem proper and may deduct the cost of such insurance from any monies which may be due or become due the Grantee under the Agreement.

17. Warranty and Quality.

The Grantee warrants that all Work, services and materials shall: conform to the Scope of Work agreed to by the Grantee and the Institute. If any Work performed including Work product is defective or otherwise not in conformity with the requirements of this Agreement, the Institute, in addition to its other rights, may reject the same for full reimbursement of funds expended by the Institute for the particular non-conforming Work or Work product, or require proper correction, replacement or completion thereof at the Grantee's expense within a reasonable period of time. All costs and expenses to conform Work shall be at the sole expense of Grantee.

18. Indemnity by the Grantee.

- 18.1. The Grantee agrees to indemnify, defend and hold harmless the Institute, its directors, officers, agents, staff, and employees (all such Parties are hereinafter referred to collectively as the "Indemnified Parties") from and against any and all liability, claims, lawsuits, losses, demands, damages, costs, and expenses (including reasonable attorney's fees and court costs), arising directly or indirectly out of the Grantee's performance or the performance of Grantee's officers, directors, employees, agents, representatives, contractors and sub-contractors, suppliers or other affiliates under the Agreement, including, without limitation; provided, however, that the Grantee shall have no indemnity liability in the event that any such liability, claim, loss, demand, damage, cost or expense is attributable to, in whole or in part, or arises directly or indirectly out of: (i) any act or omission of any Indemnified Party, (ii) any breach by the Institute of its obligations under this Agreement, or (iii) any act or omission on the part of the Grantee which was taken upon the advice or at the direction of the Institute.
- 18.2. The Grantee agrees to supply all monies necessary to provide a diligent defense against any and all liability, claims, lawsuits, losses, demands, damages, costs, and all other expenses (including attorney's fees and court costs and costs of settlement), brought against the Indemnified Parties with respect to the subject of the indemnity, whether such claims or actions are rightfully or wrongfully brought or filed. Any Indemnified Party wishing to be indemnified shall:
 - (a) promptly after receipt of notice of any and all liability, claims, lawsuits losses, demands, damages, costs, and expenses, or if later after the commencement of any action, suit, or proceeding giving rise to the right of indemnification, notify the Grantee, in writing, of said liability, claims, lawsuits, losses, demands, damages, costs, and expenses and send to the Grantee a copy of all papers served on the Indemnified Party;
 - (b) permit the Grantee to retain qualified counsel of the Grantee's choosing to represent the Indemnified Party (but in the event that the Grantee does not select counsel to represent the Indemnified Party within ten (10) days following notice to Grantee, the Indemnified Party may select its own counsel, the fees and all costs of which will be borne by the Grantee); and

c) allow the Grantee to retain exclusive control of any such liability, claims, lawsuits, losses, demands, damages, costs, and expenses, including the right to make any settlement, except that the Grantee will not have the right to make any settlement or take any other action which would be deemed to confess wrongdoing by any of the Indemnified Parties or could reasonably be expected to have a negative effect on the reputation of one of the Indemnified Parties, without the prior written consent of the Institute and the Indemnified Party involved.

19. Subcontractors and Suppliers/Flow Down Obligation.

The Grantee agrees to be solely responsible for any failure by its subcontractors or consultants to comply with the terms and conditions of this Agreement. Nothing herein shall be deemed to create a contractual relationship between any such subcontractor and the Institute or provide a basis for any claim by a subcontractor against the Institute. All of the Grantee's subcontractors and consultants shall be apprised of the terms and conditions of this Agreement and shall be held liable, accountable for and subject to these terms and conditions in their own subcontract work and contracts to the same extent and degree that the Grantee is or would be liable, accountable for and subject to these terms and conditions in its Agreement Work. It shall be the Grantee's duty to ensure that its subcontractors and consultants accept and comply with all of the terms and conditions of this Agreement and are fully insured and/or bonded.

20. Disputes.

Claims, disputes or other matters in question between the Parties to this Agreement that cannot be resolved by good faith negotiations shall be subject to mediation, and if necessary, mediation or arbitration. A demand for mediation shall be made within thirty (30) days after one Party has notified the other Party in writing of its belief that a dispute cannot be resolved by negotiation. After the expiration of the thirty (30) day period, the Parties may nevertheless agree in writing to submit the dispute to mediation. Any mediation shall be held in accordance with the Mediation Rules of the American Arbitration Association in effect when the dispute arises, unless the Parties mutually agree otherwise in writing. The mediation shall take place at a mutually convenient location in the District of Columbia. Demand for mediation shall be filed in writing with the other Party to this Agreement and with the American Arbitration Association. Any dispute or difference arising out of or in connection with this Agreement which cannot be amicably settled by mediation within sixty (60) days after a demand for mediation is issued, shall be finally settled by arbitration under the Rules of Commercial Arbitration of the American Arbitration Association. The arbitration shall take place at a mutually convenient location in the District of Columbia. The resulting decision of the arbitrators shall be final and binding on the Parties. Judgment upon any award rendered by the arbitrators may be entered in any court having jurisdiction thereof. In no event shall the demand for mediation or arbitration be made after the date when institution of legal or equitable proceedings based upon such claim, dispute or other matter in question would be barred by the applicable statute of limitations. The prevailing Party in any arbitration will have all costs and expenses of such proceeding paid for by the other Party, including, without limitation, reasonable legal fees.

The Institute and the Grantee each hereby waive to the fullest extent permitted by law the right to assert against the other any claim for punitive and /or exemplary damages and agree that neither shall be liable to the other for incidental, special, indirect or consequential damages of any kind.

21. Non-Disclosure Agreement and Publications.

- 21.1. The Grantee and all individuals conducting the Work, whether paid under this Agreement or otherwise, may not engage in similar Work performed independently under other grants, contracts, or agreements with Parties other than the Institute without the prior written consent of the Institute which shall not be unreasonably withheld. The Grantee agrees to use its best efforts to prevent disclosure of information arising from or relating to this Agreement which is designated in writing as being "CONFIDENTIAL" or is otherwise known to be confidential by the Grantee.
- 21.2. The Grantee shall have the right to publish in scientific or other journals, or to present at professional conferences or other meetings, the results of the Work conducted under this Agreement. Grantee shall submit to Institute all advertising, sales promotion and other publicity matter wherein the name of the Institute is mentioned or language is used from which the connection of the Institute therewith may, in the judgment of the Institute be inferred or implied, and Grantee shall not, without the prior written consent of the Institute publish or use such advertising, sales promotion or publicity matter.
- 21.3. In any material produced by the Grantee under this Agreement, the Grantee (unless otherwise instructed by the Institute) shall include the following disclaimer: "The material and other information included in this document is intended to provide general guidance only on the subject matter addressed by the publication/presentation. It is not intended to be a substitute for the personal instruction, guidance and advice of a professional with training and experience in the safe and proper use of heating oil."

22. Ownership of the Work.

- 22.1. All intellectual property rights resulting from the Project shall be owned by the Grantee, copyright or otherwise that may arise from performance under the Agreement. Grantee acknowledges that the results of the Work and Agreement performance and any products or services arising from the Agreement will be made available to all members of the heating oil industry
- 22.2. Intellectual Property Rights In the event any project funded in whole or in part by a grant or rebate from the Institute results in the development of distinct intellectual property rights, such as a patent, copyright or trademark, and such distinct intellectual property is not found in a commercial product five (5) years after its development, then the Institute shall either have first right of refusal to a level of ownership of said property rights or receive from the Grantee return of all funds provided to Grantee with respect to such Project.

23. Force Majeure.

Neither Party shall be responsible for performing under this agreement due to any cause beyond the control of the Institute and the Grantee for which they could not have reasonably foreseen and guarded against, which acts shall include acts of God, fires, floods, wind storms, ice storms, labor disputes, court orders, fires, riots, civil unrest, incendiarism, interference by civil or governmental authorities (not due to violation of any provision of this Agreement), and acts of war. Grantee, in good faith, shall make every effort to continue to perform under this Agreement.

24. Notice and Authorized Representative.

Written notice shall be deemed to have been duly served when received by hand delivery or when received by certified or registered mail, overnight delivery service (i.e. FedEx) or facsimile in each case to: (1) the "Company General Counsel/Senior Executive Officer" at the address set forth on the first page of this Agreement; and (2) to the Authorized Representative of the Institute at the address below, including all copies, and the Grantee. Each Party shall advise the other in writing of any applicable address change.

The Institute's Authorized Representative: National Oilheat Research Institute, Inc. Address: 600 Cameron Street, Suite 206 Alexandria, VA 22314 Phone: (703) 340-1660 (703) 340-1661 Fax: Attn: Mr. John Huber With Copies to: Name: Patton Boggs LLP Name: Exergy Partners Corp. Address: 2550 M Street, NW Address: 12020 Meadowville Court Washington, DC 20037 Herndon, VA 20170 Phone: 202-457-6000 Phone: 703-707-0293 Fax: 202-457-6315 703-707-0138 Fax: Attn: Edward J. Newberry, Esq. Richard Sweetser Attn: Grantee's Authorized Representative: Name: Address: Phone:

25. Governing Law.

Fax: Attn:

This Agreement, including all performance requirements and disputes hereunder, shall be governed by and construed in accordance with the laws of the District of Columbia.

26. Entirety Clause/Severability.

The terms and conditions of this Agreement constitute the sole, exclusive and entire agreement between the Institute and the Grantee. Any modifications must be set forth in writing and signed by the Institute's and the Grantee's duly Authorized Representative. If any provision herein is held to be invalid by any competent court or arbitration tribunal, the remaining provisions of this Agreement shall survive and remain in full force and effect. The Parties hereto shall endeavor in good faith negotiations to replace the prohibited or unenforceable provision with a valid provision, with the economic effect of which comes as close as possible to that of the prohibited or unenforceable provision.

27. Waiver.

No waiver shall be deemed to have been made by either Party unless expressed in writing and signed by the waiving Party. The failure of either Party to insist, in any one or more instances, upon strict performance of any of the terms or provisions of this Agreement, or to exercise any option or election herein contained, shall not be construed as a waiver or relinquishment for the future of such terms, provisions, option or election, but the same shall continue and remain in full force and effect, and no waiver by any Party of any one or more of its rights or remedies under this Agreement shall be deemed to be a waiver of any prior or subsequent rights or remedy hereunder or at law. All remedies afforded in this Agreement shall be taken and construed as cumulative; that is, in addition to every other remedy available at law or in equity.

28 Miscellaneous Provisions.

- 28.1. Access to Records. In connection with the Work performed, Payment Requests, Grantee Claims, Change Requests, Changes, and terminations, the Grantee shall grant the Institute access to and permit copies to be made of Grantee's books and records, including records of reimbursable and other expenses.
- 28.2. Taxes. The Agreement Price includes and the Grantee shall pay all sales, consumer, use and all other taxes, fees, assessments and levies required by law.
- 28.3. Authority. The officers or partners of the Institute and the Grantee, respectively, signing this agreement represent and warrant that they have the power and authority to execute the Agreement on behalf of the Institute or the Grantee, as applicable, and to bind the Institute or the Grantee, as applicable, herein.
- 28.4. Permits and Notices. The Grantee shall obtain all permits and licenses required as a matter of law or regulation and necessary for the proper completion of all Work under this Agreement. The Grantee shall provide all notices required by law which bear on the performance of the Work.
- 28.5. Inspection and Testing of Work. Upon written request, the Institute and its representatives shall at all reasonable times during normal business hours have access to and the right to inspect the Work. Such inspections or verbal approval are not to be interpreted as the Institute's acceptance of the Work or a waiver of Agreement requirements.
- 28.6 Assignment. Except as designated in Exhibit A herein, the Grantee shall not assign or sublet this Agreement in whole or in part, nor shall the Grantee assign any monies due or to become due hereunder, without the prior written consent of the Institute. Upon thirty (30) days notice to Grantee, the Institute may assign this Agreement to another individual or entity.
- 28.7. Use of Institution Name/Public Statements. The Grantee agrees to make no public presentations about the Work outside of appropriate scientific meetings, to issue no news releases about the Work, and the Grantee shall not make use of the Institute's name in any form of public information without the written permission of the Institute.
- 28.8. Relationship. Nothing herein contained shall be construed to imply a joint venture, partnership or principal-agent relationship between the Institute and the Grantee, and

- neither Party shall have the right, power or authority to obligate or bind the other in any manner whatsoever, except as otherwise agreed to in writing.
- 28.9. Legal Rights. The rights and remedies of the Institute provided for under this Agreement are in addition to any other rights and remedies provided by law.
- 28.10 Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. A facsimile signature by the Institute and/or Grantee shall be deemed the original signature of such Party.

IN WITNESS WHEREOF, the Parties by their duly Authorized Representatives have executed this Agreement and entered into this Agreement on the dates set forth below. The date provided below by the final signatory to this Agreement shall be the effective date of this Agreement.

Institute: National Oilheat Research	Grantee:
By: John Huber, President	By:
Date:	Date: