

**Request for Proposals:
RFP#: 43538
Condensing RTU Field Trial**



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1 Introduction

About the Northwest Energy Efficiency Alliance

The Northwest Energy Efficiency Alliance (NEEA) is an alliance of more than 140 utilities and energy efficiency organizations working on behalf of more than 13 million energy consumers. NEEA is dedicated to accelerating both electric and gas energy efficiency, leveraging its regional partnerships to advance the adoption of energy-efficient products, services and practices.

Since 1997, NEEA and its partners have saved enough energy to power more than 900,000 homes each year. As the second-largest resource in the Northwest, energy efficiency can offset most of our new demand for energy, saving money and keeping the Northwest a healthy and vibrant place to live. www.neea.org

2 Background

NEEA's Natural Gas Portfolio is the first regional effort to drive natural gas market transformation in the country. This initial work will build experience working in natural gas markets and drive toward a fully integrated approach to market transformation for the long-term benefit of the region. Key focuses of the portfolio are investigating natural gas savings potentials of new technologies and understanding barriers with existing gas saving technologies.

Natural gas commercial condensing rooftop units (RTUs) were identified as one of five technologies with market transformation potential in NEEA's 2015-2019 Natural Gas Business Plan. These condensing RTUs are available in the market and offer promising energy savings. NEEA recently completed a four-unit condensing RTU field trial and aims to expand its learnings and obtain findings through a second field trial.

3 Objectives

The main goal of this Condensing RTU Field Trial is to evaluate the fitness for use of products from two manufacturers: Engineered Air (EA) and ICE Western (ICEW). Other manufacturers may be considered. Secondary goals include analyzing the simple payback of the units as well as using and evaluating NEEA's Condensate Management Best Practices Guide (currently under development) during the installations.

The field trial will answer the following questions:

- Do EA and ICEW products perform adequately over a 12-month period without failure or downtime, while delivering satisfactory heating, air conditioning (if applicable), and ventilation to the conditioned space?
- Based on field measured combustion efficiency and gas and electrical energy use rates of the baseline product being replaced, and factoring in any estimated life expectancy and installation differences between them, what would the simple payback be for the condensing RTU being installed?
- Based on a standard efficiency replacement product (e.g. 80%) being using in lieu of the condensing RTU, what would the simple payback be for the

condensing RTU being installed? What impact does the type of fan motors used have on this simple payback (e.g. 2-speed, variable speed, etc.)?

- Is NEEA's Condensate Management Best Practices Guide useful? What are its limitations and should there be additions or deletions? Does it conflict with codes or other standard practices?
- Are there any operational, technical, or other barriers with EA or ICEW products for end users?
- Were there installation efficiencies experienced after four RTU installations? What were the experiences of the crew after each one?

4 Definitions

EA – Engineered Air

ICEW – ICE Western

NG – Natural Gas

NEEA – Northwest Energy Efficiency Alliance

RTU – Rooftop unit, includes all roof-mounted furnaces types (e.g. packaged A/C units with gas heating, make-up air units, dedicated outside air systems, etc.)

Btu – British thermal unit

MBH – equal to 1,000Btu/hr

5 Scope of Work

Task 1: Project Management

The selected Contractor will be responsible for the following project management activities and deliverables.

Activities:

- a) Coordinate and participate in various internal and external meetings, including NEEA cross-functional teams
- b) Coordinate with NEEA Product Manager to deliver specific actions and communications to support field trial goals
- c) Provide data for NEEA Market Research & Evaluation efforts, as requested
- d) Manage subcontractors (if applicable)
- e) Manage, provide billing support for, and report for all project applicable subcontractors
- f) Deliver the project at or under budget
- g) Submit deliverables in a timely fashion

Deliverables:

- a) Detailed project plan and budget, approved by NEEA Product Manager. The project plan shall link to goals as well as define projected results, timelines, and tracking and reporting plan for the duration of the field trial.

- b) Monthly project activity report, to include activities summary and budget/financial reporting, forecast to budget for remainder of contract, and progress toward project plan objectives
- c) Report actual installation task hours and costs for each unit
- d) Feedback and insights incorporated into NEEA's strategic plans (as needed)
- e) Updated work/project plans in response to changing conditions and strategy (as needed)
- f) Weekly or bi-weekly phone status meetings to discuss progress and project status
- g) Final report write-up with findings, including answers to the questions outlined in section 3 (Objectives) above

Task 2: Field Trial Site Planning, Selection and Recruitment

Activities:

- a) Recruit four sites that will accommodate replacement of an existing RTU with a condensing RTU. Site and product selection criteria include:
 - a. Two EA condensing RTU products 1,000MBH input or less
 - b. Two ICEW condensing RTU products 1,000MBH input or less
 - c. One site in each of the following natural gas utility territories:
 - i. Avista
 - ii. Cascade Natural Gas
 - iii. Northwest Natural
 - iv. Puget Sound Energy
- b) Negotiate and execute field trial agreements with end users
- c) Develop and maintain site communication log, site issue log, and risk management plan pre-launch

Deliverables:

- a) Fully executed field trial agreements with the end users
- b) Facilitate the specification and procurement of each RTU, and obtain pricing for standard efficiency equivalents with various fan options for comparison
- c) Copies of written manufacturer approval for each site

Task 3: Field Trial Site Installation, Measurement and Coordination

Activities:

- a) Facilitate each installation using one crew for all installations (to evaluate possible gains in installation efficiencies) while utilizing NEEA Condensate Management Best Practices Guide. Ensure site modifications are completed and permits are drawn as required
- b) Obtain installer feedback on the Condensate Management Best Practices Guide
- c) Measure and record existing unit combustion efficiency and gas and electric energy usage rates for comparison purposes according to sampling rate and locations outlined in the project plan above.

- d) Monitor and record natural gas and electricity usage daily for 12 months for each site according to sampling rate and locations outlined in project plan above. Ensure data collection resiliency and redundancy are such that no data gaps occur from measurement system failure.
- e) Monitor the RTUs for component failures or performance deviations daily and resolve installation or performance related issues in a timely fashion. Ensure failures are reported to NEEA Product Manager immediately upon discovery.
- f) Gather end user feedback on unit operation, comfort, and overall satisfaction every 3 months for a total of 4 times over the course of the field trial
- g) Facilitate system service and maintenance work for the duration of the project
- h) Revert all sites back to the original RTUs if desired by the site owners

Deliverables:

- a) Final presentation of findings and recommendations for future work inclusive of potential product improvement area and cost reduction opportunities
- b) Draft test report outlining: activities completed, test methodology, baseline system performance and energy savings (gas and electric) compared with condensing RTUs, pros and cons to replaced products, retrofit and standard efficiency unit break-even analyses, detailed installation labor hour quotes vs. actuals, noted response to and deviations from the NEEA Condensate Management Best Practices Guide, product failures and resolutions, and suggested next research steps.
- c) Final test report with incorporated revisions.

6 Contractor Qualifications

NEEA encourages proposals from all firms with relevant experience in achieving project goals. The winning bidder will demonstrate a thorough understanding of the commercial HVAC market and demonstrate the capacity to execute items outlined in this RFP.

Bidders with the following qualifications are encouraged to bid on this work:

- Knowledge of and/or experience with condensing RTUs
- Knowledge of and/or experience with the commercial HVAC systems, including common applications (e.g. basic heating and cooling, make-up air, DOAS, etc.), specification, installation, maintenance, servicing and operating of these systems
- Knowledge of and/or experience in developing comprehensive field trial strategies, deploying installations, monitoring and assessing energy savings performance
- Demonstrated program administration capabilities sufficient to coordinate and deliver effectively
- Excellent written and verbal communication practices

7 Product Quality

The installation and support of the RTUs shall be of highest quality to avoid downtime during the test period and to enable high end customer satisfaction during and after the field trial. Unexpected issues shall be solved in an expedited manner.

Reports shall be written using the NEEA style guide, monthly reports shall be written using a NEEA-supplied template, and all written materials shall be free of grammatical and spelling errors.

8 Proposal Submission

Bidder shall submit as per the instructions below (1) hardcopy and (1) electronic copy of the proposal by the end of business day listed in the RFP schedule below:

8.1 RFP Schedule

August 18, 2017	Intent to bid submission due
September 1, 2017	Questions submitted
September 8, 2017	Answers to Questions e-mailed back
September 22, 2017	Written Proposals due
September 29, 2017	Selection of Finalists
October 3, 2017	Contract Award Date

8.2 RFP Point of Contact

All correspondence, included but not limited to, questions and submissions shall be directed to:

Chris Kroeker
Product Manager
Northwest Energy Efficiency Alliance
421 SW 6th Avenue, Suite 600
Portland, OR 97204
Phone: 503-688-5400, ext 5494
E-mail: ckroeker@neea.org

8.3 Intent to Respond

All “Intent to Respond” forms must be received no later than by the end of business day listed in the RFP Schedule.

Only those parties submitting the “Intent to Respond” form will be provided with updates to the RFP, have questions responded to and have their proposals considered.

8.4 Proposal Format

Proposals should be no more than ten (10) pages in length and include:

1. **Cover Letter** – Include an overview of your organization, rationale why you feel your organization is a good fit, and expected team composition including team member bio-data.

2. **Approach to Project** – Include at least three (3) case studies in your proposal, or links to at least three (3) case studies or other projects that demonstrate your capabilities related to this project.
3. **Timeline** – Include a timeline that demonstrates how the project will be implemented over the allocated time frame.
4. **Cost** – Provide cost breakdown by task and year. The cost of the contract should be bid as a Time and Materials.

9 Selection

9.1 Scoring

Bidding firms will be rated among others in terms of:

1. Responsiveness to the RFP and demonstrated understanding of the issues surrounding the project.
2. The thoughtfulness and appropriateness of the proposed methodology used to accomplish the desired results of the project.
3. The experience and qualifications of the individuals specifically proposed to execute and manage the project. (Note: Proposed staffing is a significant factor in bidder selection. As such, no changes in key staff / substitutions or changes in roles/responsibilities can be made without the written agreement of NEEA Product Manager.)
4. The experience of the firm or team of firms making the proposal.
5. The capability to execute the plan, including past experience and aptitude for collaboration.

NEEA is under no obligation to select any proposal that results from this solicitation, nor is there any obligation or intent implied to reimburse any party for the cost of preparing a proposal in response to this RFP. NEEA encourages bidders to submit proposals that include innovative methods or tasks in addition to or different from those listed in the RFP.

10 Insurance/Warranties

Without limiting any liabilities or any other obligations of Contractor, Contractor shall, prior to commencing work, secure and continuously carry with insurers having an A-rating (or better) from A.M. Best Company the following minimum insurance coverage:

10.1 Commercial General Liability insurance

With a minimum single limit of \$1,000,000, the coverage shall include:

1. Bodily Injury and Property Damage Liability;
2. Contractual Liability;
3. Products and Completed Operations to protect against and from all loss by reason of injury to persons or damage to property, including all third persons, and property of NEEA and all third parties based upon or arising out of

Contractor's operations hereunder, including the operations of its subcontractors of any tier.

10.2 Business Automobile Liability insurance

A minimum single limit of \$1,000,000 for bodily injury and property damage with respect to Contractor's vehicles, whether owned, hired or non-owned, assigned to, or used in the performance of the Tasks.

Appendix A - Intent to Respond Form

RFP #: **43538**

Project Title: **Condensing RTU Field Trial**
NEEA Point of Contact: Chris Kroeker

Refer to section 7.2: Point of Contact for more details

PLEASE PRINT:

Company	
Address	
City, State, Zip	
Contact Name	
Contact Title	
Phone #	
Fax #	
E-mail	

The company named above intends to submit a proposal in response to NEEA’s request for proposal listed above.
Deadline for submitting the “Intent to Respond” form is end of business day of date listed in the RFP schedule.

Signature of authorized representative: _____

Print Name _____

Title _____

Date _____