

**Market Research & Evaluation  
Request for Proposals:  
RFP # 51365  
HVAC Market Actor Profile**



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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 natural 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](http://www.neea.org)

## 2 Background

NEEA's Heating, Ventilation, and Air Conditioning (HVAC) Product Group is studying the energy efficiency and market potential of a portfolio of new HVAC technologies for commercial buildings. Key considerations for the widespread adoption of these technologies are understanding how commercial HVAC businesses and installation projects in the northwest work. Prior research has provided some insights in the HVAC market, such as structure of the supply chain and the role of HVAC project specifiers in scoping and carrying out HVAC installation projects (see Appendix B for a list of relevant research). Specifiers are typically architects, mechanical engineers, and/or contractors who determine the mechanical specifications for a building's HVAC system. Once the specifications are made, HVAC installation firms are contracted to carry out the installation.

**NEEA seeks to learn more about HVAC installation firm employees and how HVAC businesses run (e.g., how firms ensure profitability) in order to more fully understand the HVAC market and its dynamics.**

## 3 Objectives

### 3.1 Program/Initiative Objectives

The overarching goal for this market research project is to compile actionable insights about HVAC installation firm employees and businesses that can be used to inform future messaging, education and training materials, market interventions to influence behavior and decision making, and research on specific HVAC products and technologies.

### 3.2 Research Objectives

NEEA has two research objectives to help meet the project’s overarching goal:

1. To understand the motivations, information sources, and decision-making processes of workers involved in HVAC installations.
2. To understand the “business side” of HVAC installation companies.

Specific research questions align with each objective:

Objective	Research Questions
<p>A. To understand the motivations, information sources, and decision-making processes of workers involved in HVAC installations</p>	<p>MOTIVATIONS:</p> <ol style="list-style-type: none"> <li>1. What motivates them?</li> <li>2. What are their favorite installations to do, and why?</li> <li>3. What brings them to work every day?</li> <li>4. What are their pain points?</li> </ol> <p>INFORMATION:</p> <ol style="list-style-type: none"> <li>5. Where do they get information?</li> <li>6. Are employees required to get continuing education credits? If so, where do they find these opportunities?</li> </ol> <p>DECISION MAKING:</p> <ol style="list-style-type: none"> <li>7. What is the path to purchase and installation? How are employees in different roles involved in the path to purchase?</li> <li>8. Do they select projects? If so, how do they select them?</li> <li>9. Who makes decisions about what throughout the entire path to purchase and installation?</li> <li>10. Are there differences in the approach or decision-making process based on building type (new construction vs. retrofit, medium vs. small, etc.), ownership (public, owner-occupied, investor owned) or business type (school, office, hospital, etc.)?</li> <li>11. In what circumstances would an HVAC installation be likely to be “above code,” and why? What are the up and downsides of working above code by individual and role?</li> </ol>
<p>B. To understand the “business side” of HVAC installation companies</p>	<p>BUSINESS MODEL</p> <ol style="list-style-type: none"> <li>1. What does a typical day look like?</li> <li>2. What sells, and why?</li> <li>3. What influences in the market place inform their decisions (e.g., what their competitors are doing, product availability/lead time)?</li> <li>4. Why do they sell particular products/manufacturers? What is the history of their manufacturer and distributor relationships?</li> </ol>

Objective	Research Questions
	5. Do they partner with other firms for some jobs? If so, what do the partners contribute? Why those particular partners? 6. How do firms structure a deal/install so that they make money? What are essential rules they must follow to be profitable? <b>STAFFING AND TALENT PIPELINE</b> 7. To what extent are HVAC installation firms experiencing a shortage or surplus of skilled workers? What drives the availability of skilled workers? What are firms doing in response to any shortages? 8. To what extent are HVAC workers “poached” between firms? What are firms doing in response?

## 4 Parameters/Considerations

### 4.1 Sample Population

The sample for the study will draw from HVAC installation firm employees (including installers/technicians, salespeople, and sales engineers) working on:

- Small- to medium-sized commercial buildings (Note: In rural areas, residential HVAC installation companies may also serve small to medium commercial, and thus should be included in the sample)
- New construction and/or retrofits
- Smaller HVAC system installs (e.g., light commercial of less than 25 tons or packaged systems)
- Gas, electric, or both fuel types

The sample should include firms working in all four states in the Northwest: Oregon, Washington, Idaho, and Montana.

### 4.2 Assumptions

Based on prior research, NEEA assumes that employees in HVAC installation firms:

- Deploy installation teams with members specializing in particular roles, such as a foreman, pipe-fitter, electrician, and engineer; and
- May not perceive of their firms as HVAC firms—they may work in businesses that primarily work in other fields, such as plumbing, refrigeration, sheet metal, engineering, gas, construction, etc., but that also install HVAC systems.

### 4.3 Research Design (Approach and Methodology)

The contracted firm shall complete a literature review in order to begin answering the research questions and to inform the design and content of data collection instruments. The literature review shall include relevant studies drawn from industry conferences and publications, as well as publicly available research and evaluations, such as those posted on NEEA’s website or listed in Appendix B. Findings from the literature review

will be integrated with findings from other analyses, as well as provided to NEEA as an informal summary.

In addition, NEEA requires original qualitative or mixed-methods research to answer the research questions and meet project objectives and goals. The research design may include multiple methodologies. Possible methodologies include, but are not limited to:

- Interviews
- Focus groups
- Observations (such as job shadows or ride alongs)

Proposals must clearly delineate the methodology or methodologies to be used to answer each research question. NEEA does not expect all methodologies to address all research questions. Proposals must also explain any segmenting or sub-sampling of the target sample, also by methodology (e.g., the contracted bidder will interview business managers individually but will hold focus groups with installation team members and office staff together). Finally, proposals must provide a high-level description of data analysis steps to be taken for each methodology (e.g., content analysis using an emergent coding scheme, informal content analysis without coding, network mapping, etc.).

Recent experience on other NEEA research projects suggests that employees in the HVAC industry are unlikely to respond to email or to be willing to participate in computer-based research activities. Proposed methodologies should avoid heavy reliance on data collection methods dependent on computer or internet use, such as video focus groups, online journaling, online surveys, etc.

#### **4.4 Respondent Recruiting**

A major part of this project will be recruiting respondents. Although NEEA has existing relationships with many HVAC firms, this study seeks to expand on existing knowledge of the industry beyond familiar companies. To that end, proposals must summarize a recruiting approach and adequately budget for recruiting firms throughout the Northwest region, in urban as well as rural areas. NEEA will provide a list of known HVAC installers in the region, however, this list draws from the North American Industry Classification System (NAICS) and includes companies (e.g., plumbers) that may not engage in HVAC work. NEEA has flagged many such non-HVAC firms on the list, but the contracted firm should anticipate (and flag) other “false positives.”

Furthermore, recent NEEA research has revealed that many businesses that provide HVAC services are not primarily HVAC firms—they identify as companies for refrigeration, stoves, sheet metal, etc. Thus, the contracted firm will need to perform web searches and/or cold calls to further refine the list. Finally, other recent NEEA research suggests that email is generally ineffective for outreach to this industry; the contracted firm must plan and budget for outreach by phone and/or in person to effectively recruit respondents.

#### **4.5 Out-of-Scope**

In keeping with NEEA’s goal of learning about HVAC firms in general, but working in the small- to mid-sized commercial market, exploration of specific products or technologies

is out of scope for this project. HVAC firms that serve only large commercial (e.g., over 25 tons), residential, or industrial buildings are also out of scope. Finally, HVAC firms outside of Oregon, Washington, Idaho, and Montana are out of scope.

#### **4.6 Deliverable Requirements**

Proposals should include deliverables that allow for NEEA staff to provide feedback on key documents, such as research instruments and reports, and provide ongoing sharing out of research status and findings. Suggested deliverables for the project include the following:

1. Research instruments, such as:
  - Draft and final recruiting documents and language
  - Draft and final data collection instruments (e.g., interview, focus group, and/or observation protocols)
  
2. Reporting, such as:
  - Literature review summary
  - Periodic status reports (may be via in-person and/or virtual meetings)
  - Interim/preliminary finding briefs, memos, or top lines
  - Draft and final reports, including an executive summary
  - Draft and final presentation materials
  
3. Other deliverables, such as:
  - Updated list of HVAC firms in the Northwest

NEEA invites bidders to propose deliverables and timing in such a way that the HVAC Product Group teams will receive brief, actionable insights to inform their work on an ongoing basis. Proposals and budgets should assume at least two rounds of revisions for all final versions of key deliverables, such as presentation decks and a final report. NEEA welcomes final reports that synthesize or complete any preceding interim report findings or analyses.

Timing of deliverables will be negotiated with the contracted firm, but will align with a contract start date of January 2, 2020 and end date of June 30, 2020.

### **5 Budget**

This will be a time and materials contract with an expected budget of between \$100,000 and \$120,000.

If the proposed design cannot address all objectives and research questions within the budget range, proposals should provide an estimate of additional funds needed to fully conduct the research.

## **6 Proposal Requirements**

### **6.1 Proposal Format**

Proposals should be submitted in Word or PDF format, using 11- or 12- point font. NEEA recommends proposals

#### **6.1.1 Executive Summary of Research Design**

Include the key strategies and approach to completion of the scope of the work; proposed costs; and the reasons NEEA should select your team.

#### **6.1.2 Introduction**

Describe your understanding of the project objectives and context.

#### **6.1.3 Tasks and Deliverables**

Provide a detailed description of the specific methodologies and approach, including a high-level description of analysis and sampling steps, to be undertaken to complete the scope. Be sure to include project management activities as well. Identify all major phases and milestones for the project and the associated deliverables.

#### **6.1.4 Project Timeline & Cost Estimate**

Provide the proposed timeline for all major phases and milestones of the project broken out by proposed task and associated deliverables. Include the cost estimate for each task, including incentives to be provided to research respondents.

Note that milestone meetings should be conducted upon:

- Completion of a major phase or task
- Completion of a research method that may be used to inform the next research activity and/or may be of interest to the product group team

#### **6.1.5 Proposal Appendix**

Bidders that responded to NEEA's RFQ for market research and evaluation contracts do not need to provide the following. All other bidder proposals must include the items below in an appendix:

- Hourly Rate Sheet - for all proposed project team members project with estimated hours by task
- Company background & qualifications
- Project Team & Team Bios – Include information about program team members and team structure, past team efforts on similar work, years of experience and other relevant qualifications.
- References – Provide three (3) references for similar work conducted.
- In Good Standing – Provide documentation reflecting your organization's good financial standing, such a Dun & Bradstreet report (\*\*required for new vendors)

## **7 Proposal Submission**

Bidder shall submit as per the instructions below an electronic copy of the proposal by the end of business day listed in the RFP schedule.

## 7.1 RFP Schedule

10/10/2019	Intent to bid submission due by
10/10/2019	Email questions for clarification submitted by
10/11/-10/17/2019	Answers to questions completed via one-on-one conversations with the MRE lead
10/21/2019	Written proposals as an email attachment due by 12pm Pacific time
10/25/2019	Selection of finalists by 2pm Pacific time
10/28-10/30/2019	Finalists' presentations (by NEEA request)
10/31/2019	Contract award date
11/15/2019	Contract negotiations complete
1/2/2020	Work anticipated to begin
1/23/2020	Deadline for project kickoff meeting

## 7.2 RFP Point of Contact

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

Lauren Bates  
Senior Project Manager, Market Research and Evaluation  
E-mail: [lbates@neea.org](mailto:lbates@neea.org)  
Northwest Energy Efficiency Alliance  
421 SW 6<sup>th</sup> Avenue, Suite 600  
Portland, OR 97204

## 7.3 Intent to Respond

All "Intent to Respond" forms (see Appendix A) 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 Selection and Proposal Scoring

Bidding firms will be rated among others in terms of the overall responsiveness to the RFP – how well all RFP requests have been addressed including, but not limited to:

- 1) Demonstrated understanding of project objectives, nuances and potential roadblocks to meeting objectives
- 2) The thoughtfulness and appropriateness of the proposed design proposed to accomplish the desired results of the project
- 3) Thoughtfulness and appropriateness of proposed respondent recruitment approach and ability to address potential issues
- 4) Reasonableness of work plan – timing, tasks and deliverables

- 5) How well deliverable examples and descriptions meet the stated needs and intended use
- 6) Overall value for expenditure
- 7) Evidence of innovation / creativity in both overall design, recruitment and deliverables
- 8) Evidence of flexibility throughout the project lifecycle
- 9) Ability to communicate complex ideas/concepts in a clear and succinct fashion
- 10) The balance of the complexity of design with the succinctness of communication of the design

In addition, the following factors will play a key role in the selection process:

- 1) 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 Project Manager once the RFP has been awarded.)
- 2) The experience of the firm or team of firms making the proposal.
- 3) The capability to execute the plan, including past experience and aptitude for collaboration.

Proposals may be evaluated by the NEEA Project Manager and other NEEA staff that we believe have the perspective needed to make this important decision. NEEA is under no obligation to provide work to any vendors responding to 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.

## **9 Preferred Insurance**

Firms interested in working with NEEA should be aware of the following insurance requirements for all NEEA vendors.

Vendors must maintain adequate and reasonable insurance covering their performance under any offered contract, including, but not limited to Commercial General Liability of at least \$1,000,000/occurrence, Business Automobile Liability insurance, and any workers' compensation and unemployment insurance required by law. Professional Liability insurance may also be required. NEEA may request a copy of such insurance policies prior to awarding work.

See sample terms and conditions for additional information about minimum insurance requirements: <https://neea.org/img/documents/sample-neea-contract-terms-and-conditions.pdf>.

# Appendix A - Intent to Respond Form

## RFP #: 51365

Project Title: HVAC Market Actor Profile  
NEEA Point of Contact: Lauren Bates

Refer to section: Point of Contact for more details

### PLEASE PRINT:

<b>Company</b>	
<b>Address</b>	
<b>City, State, Zip</b>	
<b>Contact Name</b>	
<b>Contact Title</b>	
<b>Phone #</b>	
<b>Fax #</b>	
<b>E-mail</b>	

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 \_\_\_\_\_

## Appendix B – Relevant HVAC Research

Title	Topic(s)	Link
Commercial Code Enhancement Audience Research	<p>Interests, motivations, and communication with architects and engineers</p> <p>Engagement in commercial building code</p>	<p><a href="https://neea.org/resources/commercial-code-enhancement-audience-research">https://neea.org/resources/commercial-code-enhancement-audience-research</a></p>
Commercial High-Performance HVAC Market Characterization	<p>Understanding of Dedicated Outside Air Source (DOAS) among supply-side market actors</p> <p>Reasons for/types of HVAC replacements</p> <p>Markets for Very High Efficiency DOAS (VHE DOAS)</p>	<p><a href="https://neea.org/img/documents/Commercial-High-Performance-HVAC-Market-Characterization.pdf">https://neea.org/img/documents/Commercial-High-Performance-HVAC-Market-Characterization.pdf</a></p>
Rooftop HVAC Market Characterization Study	<p>Understanding of Condensing Rooftop Units (CRTU) among supply-side market actors</p> <p>Supply chain for CRTUs</p> <p>Market for CRTUs</p>	<p><a href="https://neea.org/img/uploads/Rooftop-HVAC-Market-Characterization-Report.pdf">https://neea.org/img/uploads/Rooftop-HVAC-Market-Characterization-Report.pdf</a></p>

<p>Commercial HVAC Market Characterization</p>	<p>HVAC market actors</p> <p>HVAC supply chain</p> <p>HVAC decision making processes</p> <p>Reasons for/types of HVAC replacements</p>	<p><a href="https://www.bpa.gov/EE/Utility/research-archive/Documents/Momentum-Savings-Resources/Comm_HVAC_Market_Characterization.pdf">https://www.bpa.gov/EE/Utility/research-archive/Documents/Momentum-Savings-Resources/Comm_HVAC_Market_Characterization.pdf</a></p>
<p>HVAC Market Intelligence Report</p>	<p>HVAC market in the northwest</p> <p>Ductless technology</p> <p>Variable Refrigerant Flow (VRF) technology</p> <p>Sales trends</p>	<p><a href="https://www.bpa.gov/EE/Utility/research-archive/Documents/Momentum-Savings-Resources/2016_HVAC_Market_Intelligence_Booklet.pdf">https://www.bpa.gov/EE/Utility/research-archive/Documents/Momentum-Savings-Resources/2016_HVAC_Market_Intelligence_Booklet.pdf</a></p>