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HOME ENERGY RATERS MARKET RESEARCH

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Home energy raters and providers for their participation in the research

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Executive Summary

In partnership with regional stakeholders, the Northwest Energy Efficiency Alliance (NEEA) works to increase the adoption of energy-efficient products, services, and practices by identifying and removing market barriers to adoption to drive permanent, lasting change. Some NEEA market transformation programs include a goal to influence building energy codes in the Northwest (Idaho, Montana, Oregon, and Washington) to require more efficient technologies that have gained greater market acceptance through program strategies.

NEEA and its partners also seek to influence codes more broadly in an effort to advance the efficiency of building stock in the Northwest. In addition to supporting code development and adoption, NEEA supports code compliance and above-code building. In particular, NEEA supports training for market actors on code and above-code building practices, provides resources for above-code programs, and works with state code bodies to support training and code implementation. Above-code building programs are another strategy NEEA uses to drive market acceptance of more efficient products and practices it hopes will one day be required in codes.

To refine its strategy for supporting training and code implementation, NEEA engaged TRC to conduct market research to characterize and better understand the current market of individuals providing home energy ratings for new construction homes ("raters") in the Northwest. For the purposes of this research, TRC defined a "rater" as an individual who conducts inspections or testing of homes to evaluate elements of the home's energy use and performance. Raters play a vital role in helping builders, contractors, and developers navigate both building code compliance and above-code program participation.

This project aimed to help NEEA better understand if there are gaps in the home energy raters market and to inform workforce development proposals and code trainings for NEEA's Codes and Standards team. The findings are intended to support NEEA and other organizations' efforts to understand how best to support home energy raters, who are vital to both advancing building codes and enforcing code compliance. The specific research objectives were to:

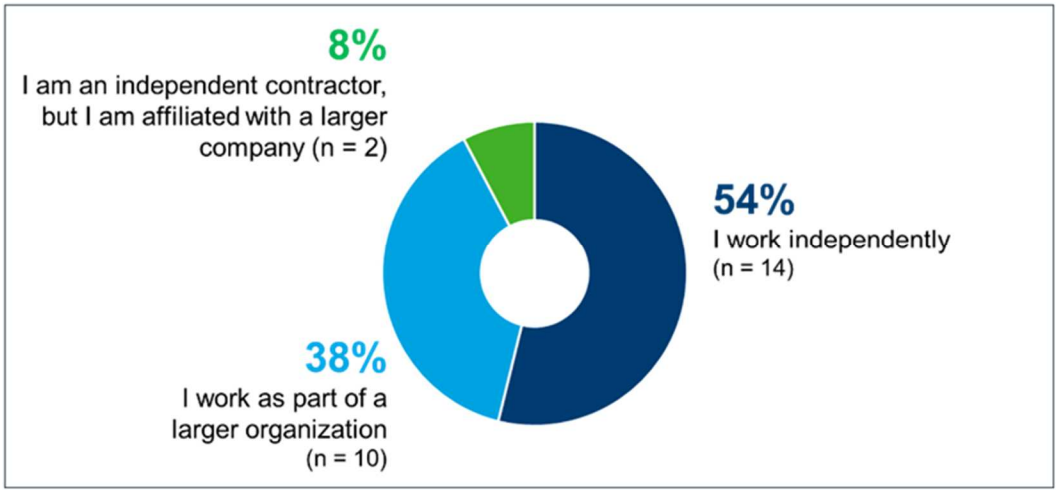
- Develop an estimate of the number of home energy raters currently working in the new construction market in the Northwest.
- Provide an assessment of current raters and their business practices.
- Provide an assessment of raters' perceptions of the current market for home energy ratings with a focus on the new construction market.
- Provide an assessment of how raters' practices and perceptions differ across urban and rural areas.

To address the above research objectives, we first established the total population of raters in the states served by NEEA by using existing rater directories. We then conducted an online survey with 26 raters, conducted follow-up interviews with nine raters, and conducted interviews with the main providers in the region. Providers train and certify raters to ensure that they are qualified to verify the work of contractors and builders and provide ongoing quality assurance on rater projects.

These research activities resulted in the following key findings and identified market gaps that organizations in the Northwest could address to support raters and ensure the rater market is capable of meeting the region's need for code compliance and above-code building support. TRC identified some market gaps through analysis of the data, while raters and/or providers identified other gaps.

- **Key Finding 1:** We identified 111 unique raters in the Northwest and determined that they primarily serve Washington (59 raters) and Oregon (36 raters). Fifteen raters reported that they offer services in Idaho and five offer services in Montana. However, according to providers, only 50 to 70 of these raters are likely active (conducted ratings within the last two years), with 95% of active raters residing in Washington and Oregon.
- **Key Finding 2:** Over half of raters in the Northwest work alone or as part of small companies with two or three staff, as shown in Figure E-1.
- **Key Finding 3**: Few new raters are coming into the industry, and most active raters having already been in the industry for over five years. However, providers anticipate that there will soon be a need for new raters because of upcoming Inflation Reduction Act (IRA) funds incentivizing above-code homes. These funds have the potential to contribute towards market transformation of energy efficient residential measures, but the home energy market must be ready to handle the increased demand. Additional research on administering IRA funds in Idaho, Montana, Oregon, and Washington could help determine the number of active raters and the skillsets needed to meet increasing demand for home energy ratings.

Figure E-1. Rater Business Structure



- **Key Finding 4:** There is a lack of racial and gender diversity among raters in the Northwest, and only one of the 26 surveyed raters offered services in a language other than English. Additional research could help investigate whether there are barriers to certain members of the workforce – specifically women, people of color, and individuals whose primary language is not English – preventing them from entering the rater industry. Additional research could also help identify how often there is a language barrier between raters and the builders or other tradespeople that the rater interacts with. If barriers are identified, workforce development organizations that serve diverse populations could be a key resource for offering trainings to raters who are not currently represented in the industry.
- **Key Finding 5**: Most raters report that they do not alter their business practices between rural and urban markets as shown in Figure E-2. However, they report conducting fewer ratings in rural areas due to a perceived lack of market demand. Raters believe builders in rural areas are less excited about energy efficiency than those in urban areas and are also less likely to be concerned about meeting code. According to both raters and providers, an adequate financial incentive is key to encouraging builder participation in above-code or utility programs that require ratings.

Raters additionally indicated that code offices in rural counties could use additional support with code enforcement due to being understaffed. Raters described travel time and inconvenience as a secondary barrier to conducting ratings in rural areas, though they noted they would navigate these obstacles if demand was high enough. Educational campaigns that share the value proposition and benefits of energy efficiency for builders could help accelerate demand for and use of rater services in rural areas.

- **Key Finding 6:** When discussing what makes a provider successful, several raters reported that the most significant factor is the provider having a local presence, followed by timely feedback on their project and answering questions about code updates. The major providers serving the Northwest expressed challenges with the unique nature of the Northwest's building codes and having to work with the many small rater organizations that comprise the rater population of the region, primarily citing issues with communication. Both providers and raters expressed interest in collaborating more closely with one another to overcome these gaps in communication. They suggested that more forums or conferences, particularly events held in states with fewer raters like Idaho and Montana, could be good venues for collaboration.

1 Introduction

In partnership with regional stakeholders, the Northwest Energy Efficiency Alliance (NEEA) works to increase the adoption of energy-efficient products, services, and practices by identifying and removing market barriers to adoption to drive permanent, lasting change. Some NEEA market transformation programs include a goal to influence building energy codes in the Northwest (Idaho, Montana, Oregon, and Washington) to require more efficient technologies that have gained greater market acceptance through program strategies.

NEEA and its partners also seek to influence codes more broadly in an effort to advance the efficiency of building stock in the Northwest. In addition to supporting code development and adoption, NEEA supports code compliance and above-code building. In particular, NEEA supports training for market actors on code and above-code building practices, provides resources for above-code programs, and works with state code bodies to support training and code implementation. Above-code building programs are another strategy NEEA uses to drive market acceptance of more efficient products and practices it hopes will one day be required in codes.

To refine its strategy for supporting training and code implementation, NEEA engaged TRC to conduct market research to characterize and better understand the current market of individuals providing home energy ratings for new construction homes ("raters") in the Northwest. For the purposes of this research, TRC defined a "rater" as an individual who conducts inspections or testing of homes to evaluate elements of the home's energy use and performance. Raters play a vital role in helping builders, contractors, and developers navigate both building code compliance and above-code program participation.

Raters play a vital role in helping builders, contractors, and developers navigate building code compliance, energy efficient upgrades, and participating in voluntary certification and incentive programs. Rater activities include rating for programs including, but not limited to: Home Energy Rating System (HERS®), Building Performance Institute (BPI), ENERGY STAR® Homes, Association of Energy Engineers, and other green labels such as International Passive House Association and Built Green; verifying homes for code compliance; and making recommendations to residents for energy-related improvements, sometimes through the use of energy modeling. It is important to note that NEEA's definition of raters is different from HERS raters, who are specifically certified by the Residential Energy Services Network (RESNET). As part of this research, we also reached out to the main providers in the region. Providers train and certify raters to ensure that they are qualified to verify the work of contractors and builders and provide ongoing quality assurance (QA) on rater projects, making them an important factor to understanding the rater landscape.

1.1 Research Overview

To accomplish the objectives of the NEEA Home Energy Rater Market Research project, we completed four research activities. Table 1-1 presents an overview of how each research activity related to the project's research objectives. For most of the research objectives, we used the rater surveys as the foundation of our analysis, with the rater and provider interviews providing additional context. In the subsequent research methodology section, we discuss each of the research activities in more detail.

Table 1-1. Research Objectives by Data Collection Activity

Research Objective	Rater Population	Rater Surveys	Rater Interviews	Provider Interviews
Develop an estimate of the number of home energy raters currently working in the new construction market in the Northwest.	✓			✓
Provide an assessment of current raters and their company practices.		✓	✓	
Provide an assessment of raters' perceptions of the current market for home energy ratings with a focus on the new construction market.		✓	✓	✓
Provide an assessment of how raters' practices and perceptions differ across urban and rural areas.		✓	✓	
Identify gaps in the market for NEEA to support.		✓	✓	✓
Understand how the market has changed in the last three years.		✓	✓	

1.2 Research Methodology

This section provides an overview of the methodologies TRC used for each of the research activities.

Rater Population

As the first step in this project, we sought to develop a comprehensive list of raters in the Northwest and their contact information. There is no consolidated public list of raters, so we assembled a list using several different sources. We started with the Washington State University (WSU) RESNET Providership List[1] then added to the list by looking at other sources including:

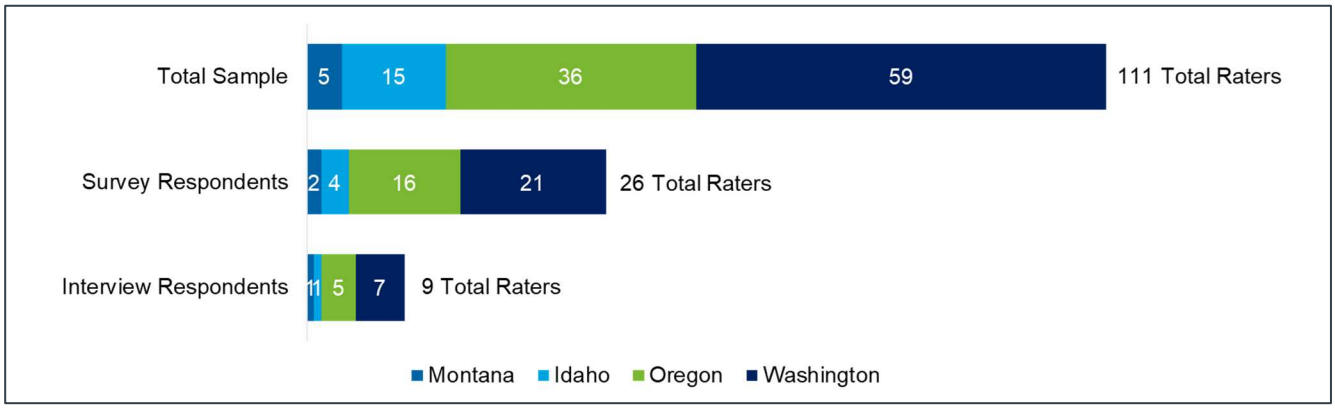
- BetterBuiltNW newsletter
- ENERGY STAR website
- Puget Sound Energy website

[1] Even though the WSU Providership is no longer active, they were the longest standing local provider in the region, having served this role for over a decade.

- TRC's internal contact list through the Energy Trust of Oregon residential new construction program
- Suggestions from NEEA

Altogether, we identified a total of 111 raters. We determined the state(s) in which raters offer their services based on their main office location(s) and information on their websites. Of the 111 raters identified, 59 appeared to offer services in Washington, 36 in Oregon, 15 in Idaho, and five in Montana, as shown in Figure 1-1. Using that population of raters, we completed 26 surveys and nine interviews. We asked all survey and interview respondents to report the states where they provide services. In both cases, there were raters who offered services in multiple states, meaning the numbers for individual responses adds up to a greater number than the total number of raters in the figure below. While we were able to find 111 raters, the raters and providers we spoke to estimated that likely only 50 to 70 of these raters have been active in the past two years.

Figure 1-1. Raters by Research Activity and State



Rater Surveys

Due to the small population of home energy raters in the Northwest, we attempted a census by emailing every rater identified in our population. We sent two waves of invitations with a link to an online survey. Initially, we emailed at least one rater at all companies we had contact information for in an effort to gather responses from as many unique companies as possible. We then sent out a second wave to all remaining contacts after not reaching our goal of 25 completes from the first wave. During that second wave, to ensure that we were able to collect responses from all four states, we followed up with individualized outreach towards raters who offered services in Idaho and Montana. As seen in Figure 1-1, we were ultimately able to reach 26 total raters, with at least two raters offering services in each state.

Each survey respondent received a gift card in appreciation for their time. At the end of the survey, we asked respondents for their availability to participate in a follow-up, in-depth interview.

Rater Interviews

We used these follow-up interviews to gather more nuanced information and the "why" behind many of the responses from the survey. Unlike the survey, these interviews were not meant to address all research objectives, but rather to dig deeper into select responses given by raters for key questions.

We reached out to all 20 raters from the survey who indicated interest in an additional interview, and we completed interviews with nine.

Each interview respondent received an additional gift card in appreciation for their time.

Provider Interviews

We also conducted interviews with providers to lend additional insight into rater behavior and inform opportunities for NEEA and other organizations to support the Northwest rater market. The provider interviews included staff members from three of the main providers that serve or recently served the Northwest.

As with our surveys and interviews with the raters, we provided each provider a gift card in appreciation for their time.

2 Rater Characteristics

This section explores rater motivations for being part of the industry and describes the population of raters in the Northwest including their business affiliations, services provided, and demographics. Overall, we discovered that Northwest raters largely work in small organizations, have typically been in the industry for many years, and are demographically homogenous.

2.1 Current Raters are Well Established in the Industry

All 26 survey respondents reported that they had been in the industry for at least three years, with the nine follow-up interviewees confirming that they had been acting as a rater for even longer. Interviewed raters began working in the home energy rating market 5 to 10 years ago, with many coming from adjacent industries. They previously worked in roles such as builders, contractors, and consultants before finding their way into home energy rating. In recent years, due to a variety of factors, there has been a perceived slowdown in new raters entering the market, which could lead to issues in the near future. We will cover this in more detail in Chapter **Error! Reference source not found.**. Interviews revealed that raters have stayed in the industry for the following reasons:

Figure 2-1. Reasons for Staying in Industry (n = 9)

Note: Raters could give more than one reason for staying in the industry.

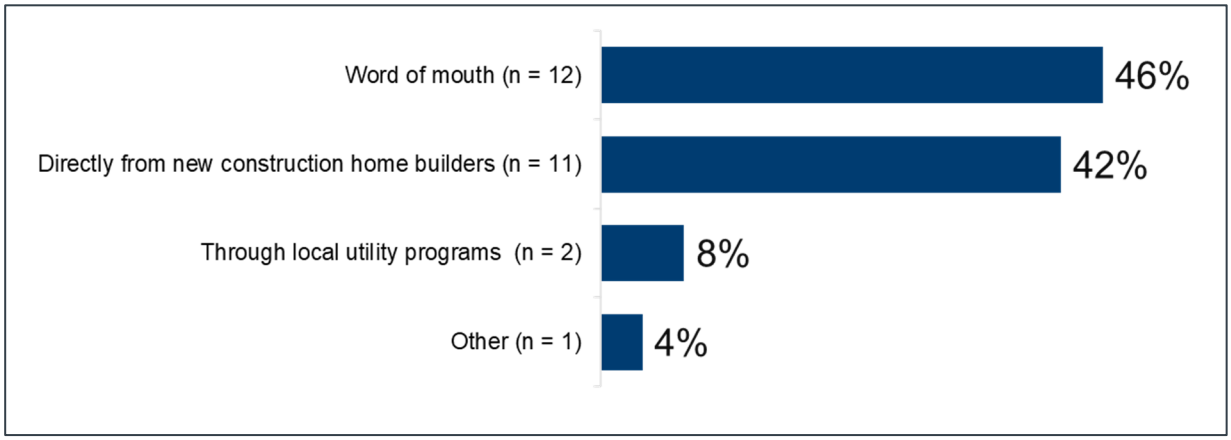
As shown in Figure 2-1, of the raters we interviewed, four reported that one reason they stayed in the industry was to drive their region forward in terms energy efficiency. Many of them shared the sentiment of this rater:

> "I want to see every home in Washington be the most energy-efficient homes possible, although I have to keep in mind that in general, builders are trying. I want to help them find a middle ground between cost and performance. This is the path I try to take."
>
> **- Washington Home Energy Rater**

Of the raters who reported that they wanted to drive energy efficiency, two primarily worked in rural areas, and they called out their desire to support their local community as another motivation for staying in the market. For instance, one rater shared that they knew everyone in their community and liked to blog about the benefits of energy efficient homes to potential customers.

We also asked how raters typically generate leads for rating projects. Raters reported taking a relatively passive approach to generating leads. This may be due to their long histories in the industry, which has created an established network of contacts. Rather than actively advertising their services or directly reaching out to builders themselves, they wait for the builders to call them. Figure 2-2 illustrates that raters primarily relied on their pre-existing relationships with builders (42%) and word of mouth (46%) to generate leads for potential ratings.

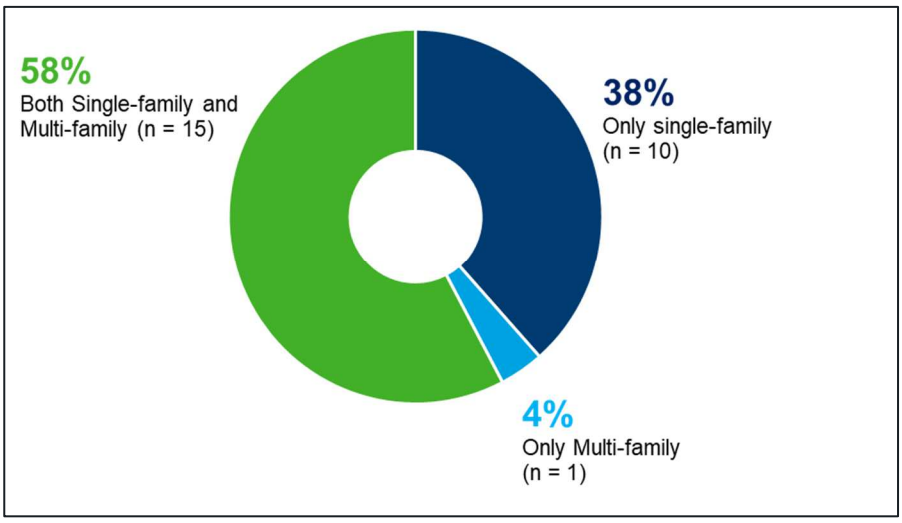
Figure 2-2. How Raters Generate Leads (n = 26)



Nearly all raters in the survey sample (96%) offer their services for single-family residential units, and a majority (62%) also offer services for multi-family units. Very few work *only* on multi-family units, as shown in Figure 2-3. Of those that conduct home energy ratings for both single and multi-family units, raters reported that they spent about 65% of their time on single-family. These numbers were roughly in line with the overall new residential construction statistics for 2024 in western states, which showed that about 60% of all residential units built were single-family.[2]

[2] New Residential Construction Press Release, Current Press Release (tables, August 16, 2024), New Residential Construction Press Release (census.gov)

Figure 2-3. Survey Respondents Conducting Ratings for Single-family vs. Multi-family Units (n = 26)

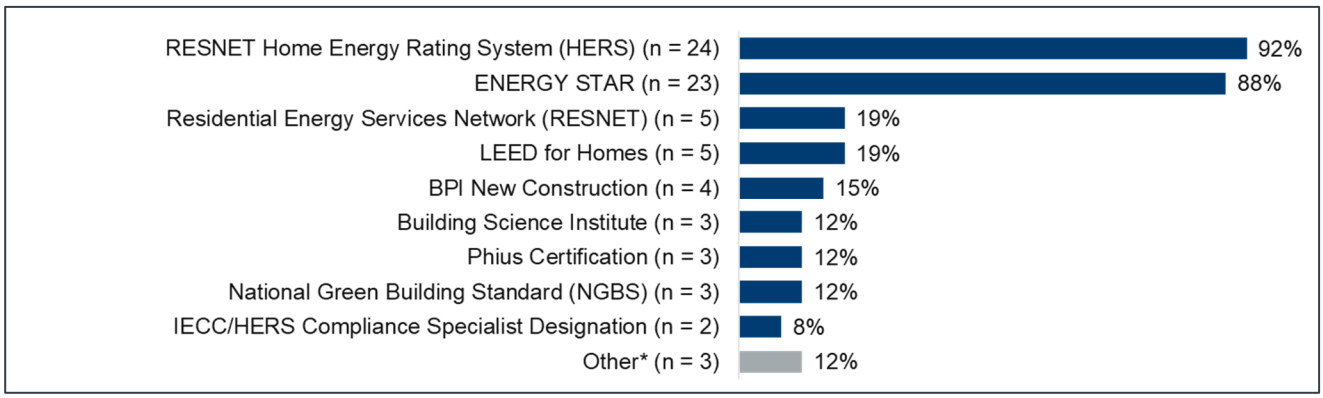


2.2 Most Raters are Certified HERS and ENERGY STAR Raters at Small Organizations that Focus on Washington and Oregon

The survey included firmographic questions to better understand raters' business operations. As detailed below, most raters hold HERS or ENERGY STAR certifications and work independently or in a small organization. Further, raters spend more time conducting ratings for home energy labeling program eligibility and above-code programs than for code compliance.

Since our definition of rater was broad and went beyond just HERS raters, we asked respondents to report on all of their certifications. We found that all respondents held multiple energy rater certifications of some kind, and most respondents held certifications in both HERS and ENERGY STAR, as shown in Figure 2-4. The next most common certifications, LEED for Homes and BPI New Construction, were much less common than HERS and ENERGY STAR. Though most raters are primarily certified through RESNET (HERS) or ENERGY STAR, some held additional certifications. At least one of the major providers we interviewed plans to offer certifications for several of the less common options shown in the figure below.

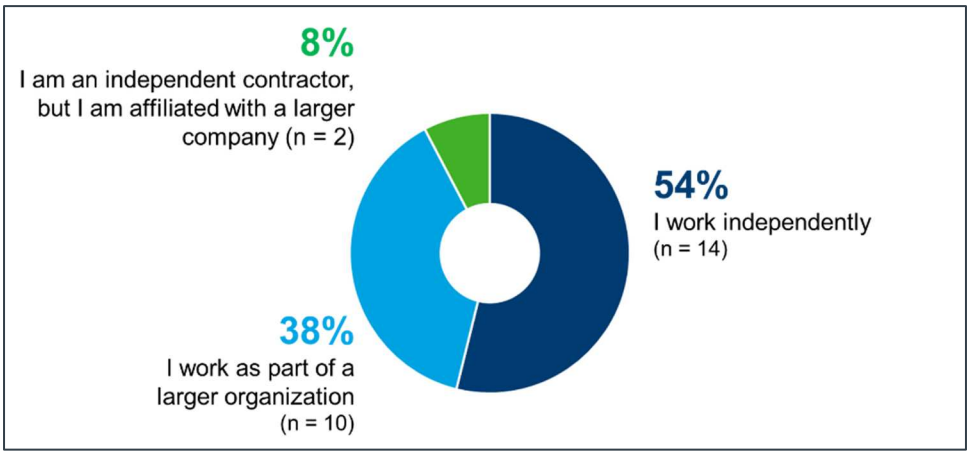
Figure 2-4. Respondent Certifications (n = 26)



Note: Raters could report more than one certification.
**Other certifications included Built Green, DOE Zero Energy Ready Home (ZERH), Licensed Home Inspector (WA), Sustainable Homes Professional (SHP) and ANSI/RESNET/ACCA Standard 310: HVAC Grading.*

In addition to learning about raters' certification types, we sought to establish the raters' business structures. As shown in Figure 2-5, about two-thirds of respondents (62%) worked independently or were independent contractors hired by larger firms. The remaining one-third (38%) work as an employee of a larger organization.

Figure 2-5. Rater Business Structure (n = 26)



Finally, we compared the distribution of raters by state with each state's estimated population[3] (Table 2-1). In general, we found that the relative population[4] of each state roughly aligned with the percent of raters offering services in that state. It is important to note, however, that there is a very low number of raters who offer services *most often* in Idaho and Montana.

[3] State Population Totals and Components of Change: 2020-2023, State Population Totals and Components of Change.

[4] New construction volume would provide a more accurate comparison, but census results are not publicly available by state.

Table 2-1. Rater Distribution by State Population

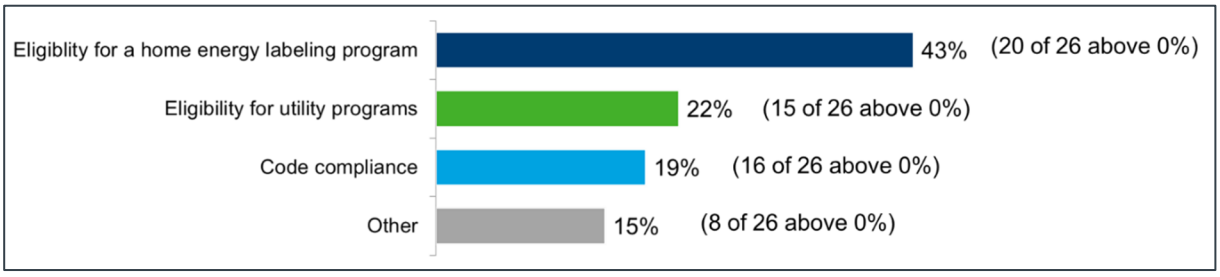
State	Population	%	# Raters who Offer Services in State*	%	# Survey Respondents who Provide Services "Most Often" in State	%
Washington	7,812,880	52%	59	54%	13	50%
Oregon	4,233,358	28%	36	32%	10	38%
Idaho	1,964,726	13%	15	14%	2	8%
Montana	1,132,812	7%	5	4%	1	4%
Total	**15,143,776**	**100%**			**26**	**100%**

**Some raters offer services in more than one state*

2.3 Raters Spend More Time Conducting Ratings for Above-Code Certifications or Utility Programs than for Code Compliance

In the survey, we asked respondents first to approximate the percentage of time they spent over the last two years conducting home energy ratings for what we considered the three most common activities: code compliance, eligibility for utility programs, and home energy labeling programs. Across all raters, raters spent an average of 43% of their time conducting ratings for home energy labeling program eligibility, 22% of their time conducting ratings for utility program eligibility, 19% of their time conducting ratings for code compliance, and 15% of their time conducting ratings for other reasons, as shown in Figure 2-6. Note that this analysis was conducted only on responses that were above zero for each activity. When "0" responses are included, the same patterns remain.

Figure 2-6. Average Percent Time Spent on Rating Types (n = 26)



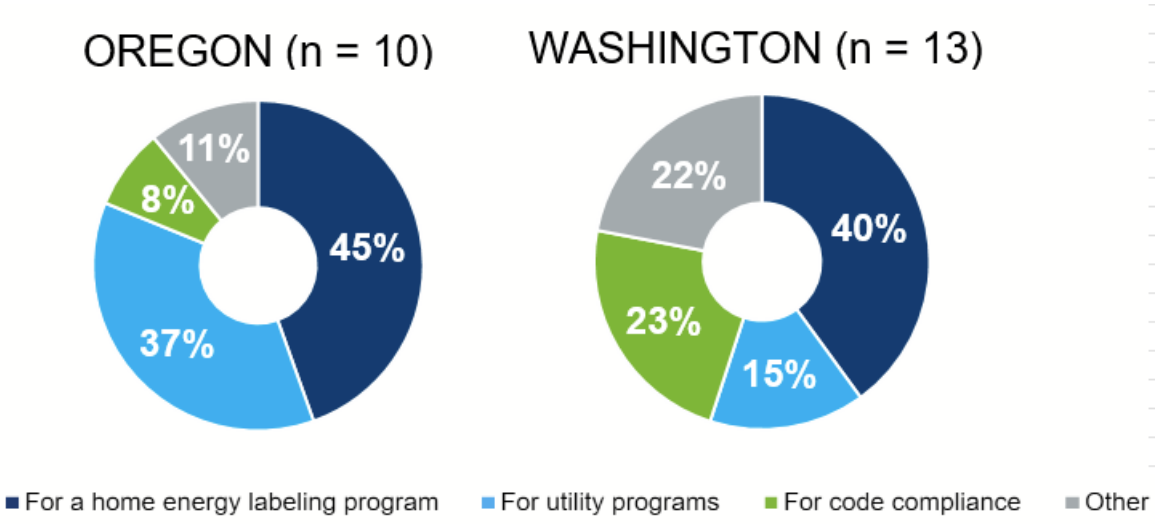
Note: Average percentages add up to 99% due to rounding.

Based on follow-up interviews with raters, code-compliance projects tend to be less time consuming on an individual basis compared to ratings for above-code programs. According to one rater, if the code compliance projects include diagnostic tests, an experienced professional could conduct a blower door test or duct blaster testing in an hour or two. In comparison, a rater conducting a HERS inspection for an above-code program would need to conduct inspections both at the early stages of construction and at completion, requiring more observations to calculate a home's overall energy efficiency in addition to the aforementioned tests. Raters who spent time on projects other than the three most common options

reported conducting ratings for green building certifications[5] or for existing home services rather than for new construction.

Since the majority of raters are located in Oregon and Washington, Figure 2-7 highlights the percent of time spent on each rating type for these two states specifically. While these results still mostly aligned with the results presented in the previous figure, raters who predominantly work in Washington spent more of their time on code compliance (23%) than did their counterparts in Oregon (8%). Conversely, raters who primarily work in Oregon spent much more time on verifying eligibility for utility programs. Results for Idaho (n = 2) were similar as Washington, with raters reporting that they spend 73% of their time conducting ratings for home energy labeling programs, 18% of their time on code compliance verification, and 10% of their time on utility programs. In Montana (n = 1), the rater reported almost all time is spent on code compliance verification (80%) compared to 20% for home energy labeling programs.

Figure 2-7. Average Percent Time Spent on Rating Types in Oregon and Washington



Note: These results are based on self-reported data from respondents who may serve multiple states

One reason raters may spend a higher proportion of their time on code compliance in Washington, Idaho, and Montana compared to Oregon is because of the different code requirements by state. In particular, some states require a blower door test to measure home air leakage, which takes longer than simple visual verifications. Specifically:

- Washington and Montana both require a blower door test, with Washington requiring a maximum air leakage value of 3 air changes per hour measured at 50 Pascals (3 ACH50)[6] and Montana requiring a maximum leakage value of 4 ACH50.[7]

[5] While the rater did not provide further explanation, a green building certification could include sustainability goals instead or in addition to energy efficiency goals.

[6] 2018 WSEC_R Final package2a.pdf

[7] Energy_Code_Newsletter_110317.pdf (mt.gov).

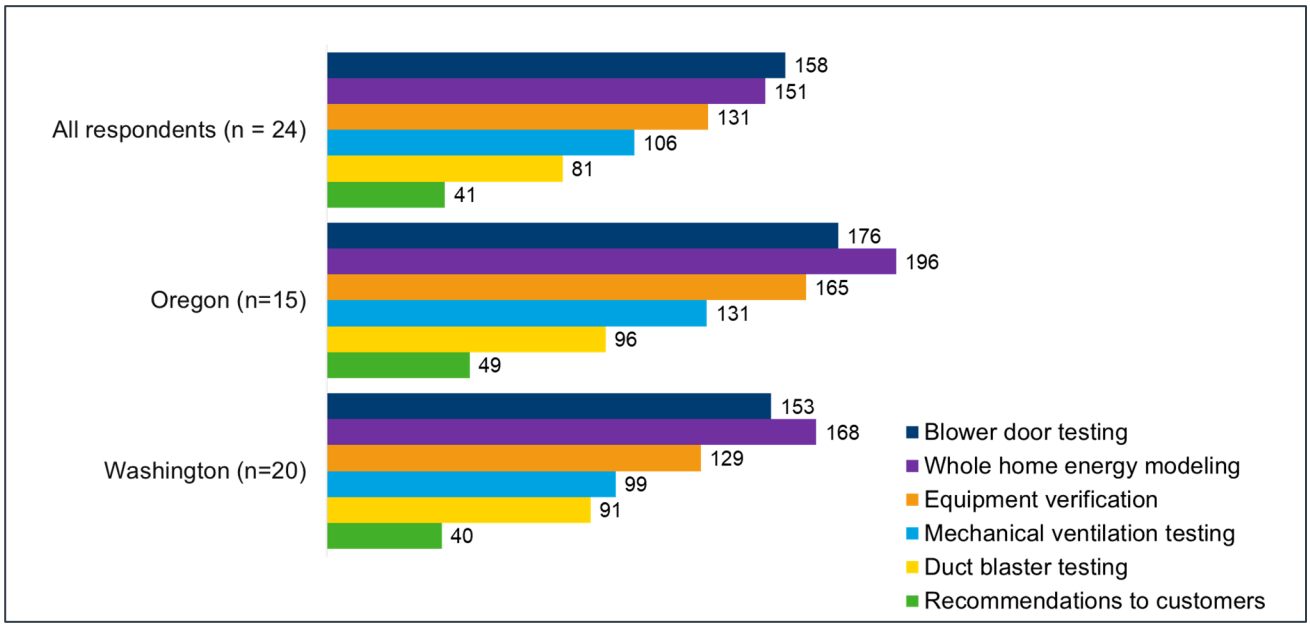
- Until recently, the Idaho energy code had a requirement for a blower door test and maximum leakage value of 5 ACH50, but the version of the code that took effect in 2024 removed the blower door test requirement and allows a visual inspection instead.[8]
- The Oregon code does not require a blower door test; projects can follow a visual inspection instead.

Of the three states where a blower test is or was recently required by code (Washington, Montana, and Idaho), none require that a third party (such as a rater) conduct the blower door test, so a builder could conduct it themselves or hire a rater to conduct the test. Notably, an earlier version of the Montana code did require a third-party rating, but an amendment removed that requirement.[9] The relatively small percent of time that raters report conducting code compliance verifications indicates that builders often choose to conduct them themselves. However, a code compliance evaluation of the 2018 Washington code found that the several projects did not comply with the air leakage requirement[10]. In states and jurisdictions where blower door testing is required and third-party review is allowed, code agencies could consider setting up infrastructure to support testing by raters instead of builders.

To further expand on the business practices of home energy raters, we asked survey respondents to estimate the number of times they conducted specific activities in the past two years. The results for "All Respondents" captures results from raters serving all four states. To investigate trends by states, we separated raters by the main state that they serve. Due to the low number of raters offering services in Idaho (n = 4) and Montana (n = 2), we only compared state-level results between Washington and Oregon. In general, we did not see major differences among the states in the rating services conducted, although respondents who mainly conduct home energy ratings in Oregon conducted slightly more total tests on average, compared to those who mainly conducted ratings in Washington.

[9] Energy_Code_Newsletter_110317.pdf (mt.gov).

Figure 2-8. Average Rater Services Conducted per Rater by State (n = 24)



Note: These are based on self-reported data from respondents who may serve multiple states and is not a representative sample.

2.4 Raters are Demographically Homogenous

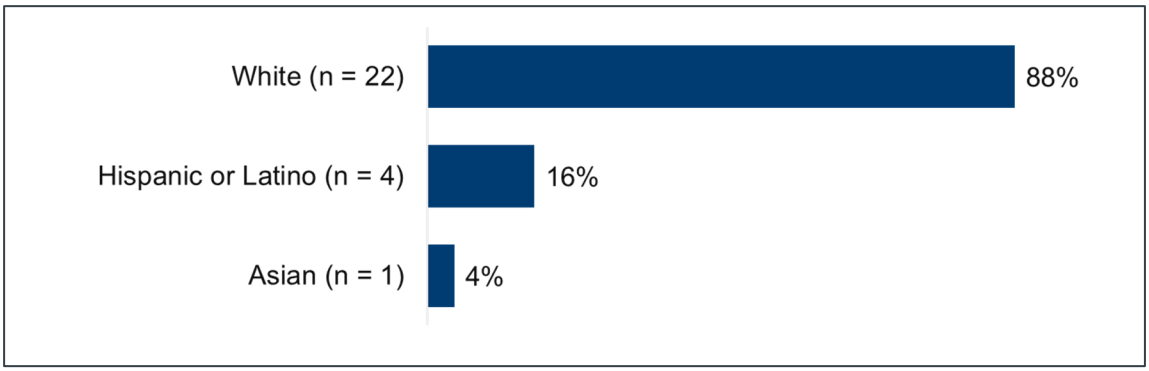
The survey collected raters' demographic information as part of our research to better understand the types of people who were choosing to become raters in the Northwest. The results of this demographics section generally suggest a fairly homogenous group from a language, racial, and gender perspective.

Most respondents (n = 25, 96%) only offered home energy rating services in English and only one respondent (4%) also offered home energy rating services in Spanish. While English is the most common language spoken in all four states served by NEEA, according to the United States Census Bureau's American Community Survey, about a fifth of households in both Oregon and Washington speak another language besides English as their first language.[11] This could result in fewer opportunities for builders who speak a language other than English to hire raters who speak their primary language or diminish the opportunities for raters to consult with contractors or trades workers who speak a language other than English.

Respondents' self-reported racial or ethnic background is provided in Figure 2-9 below and self-reported gender identity is provided in Figure 2-10.

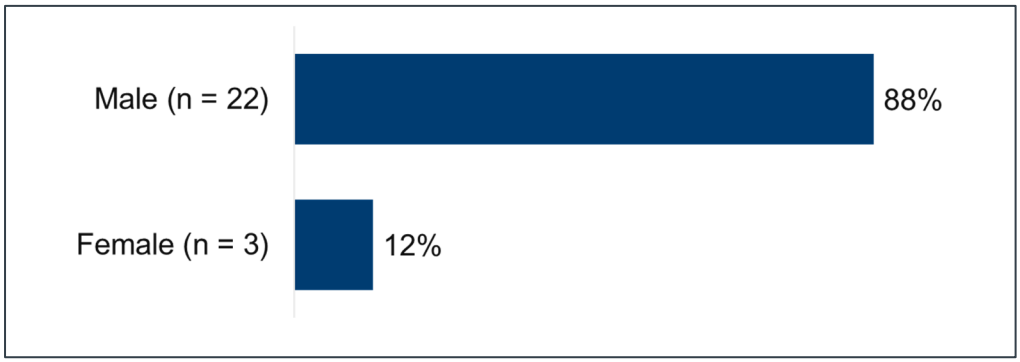
[11] "Languages spoken at home", 2022, Office of Financial Management, Languages spoken at home (mapped by county) | Office of Financial Management (wa.gov)

Figure 2-9. Racial Or Ethnic Background of Raters (n = 25)



Notes: Respondents could select more than one racial or ethnic background.
One respondent indicated 'Prefer Not to Say.' Other options not selected by respondents included Black or African American, Native American, or Alaska Native, Native Hawaiian or Pacific Islander, and Other.

Figure 2-10. Gender Identity of Raters (n = 25)



Note: One respondent selected 'Prefer Not to Say.'

3 Market Perceptions

This chapter explains how market changes have and will continue to impact raters' business outlook. Overall, respondents highlighted a potential growth in the market for home energy rating services following the Inflation Reduction Act (IRA) and associated new tax credits available for energy-efficient new home construction. Other respondents, especially in Oregon and Washington, emphasized the challenge of increasingly stringent state code requirements.

We also sought to understand raters' practices within and perceptions of the rural home energy market. Respondents reported no differences in business practices when conducting ratings in rural areas compared to urban areas, and raters felt that the lack of market demand in rural areas was the primary reason for why they conduct fewer ratings there. To help address this barrier, raters requested education for builders and customers on energy efficiency and additional or higher incentives for rural areas to both raters themselves for conducting ratings for above-code programs and to builders for building more energy efficient homes.

3.1 Raters See Federal Tax Credits as the Biggest Change to the Market

As discussed in Chapter 2, many home energy raters in the Northwest have been in the industry for several years. Their experience in the market enabled them to report on changes in the market, past and present. The survey asked raters to describe the most notable market changes that have affected their business within the last three years. Overall, raters felt that new IRA federal tax credits and state code changes, particularly in Washington, were the biggest changes. Half of question respondents (n = 11, 50%) mentioned that IRA tax credits will impact their businesses by offering an opportunity for more work after years of a stagnant market. About a quarter of respondents mentioned the tax credits will lead to increased demand for energy raters within the next three years (n = 5, 23%).

Several respondents specifically mentioned changes made to the Internal Revenue Code Section 45L (part of the IRA funds) for contractors seeking tax credits for the ENERGY STAR home program or U.S. Department of Energy (DOE) Zero Energy Ready Home (ZERH) programs.[12]

> "Inflation Reduction Act of 2022 altering requirements for the 45L incentive has provided some opportunities and some challenges for refocusing our/client goals."
>
> **- Washington Home Energy Rater**

For instance, one rater mentioned that the changes to the 45L tax credit have forced builders to focus more on HVAC systems due to their importance in the ENERGY STAR program requirements. In addition, most raters also indicated that the tax credit has led to a significant increase in the number of

[12] U.S. Department of Energy. Section 45L Tax Credits for Zero Energy Ready Homes. Section 45L Tax Credits Zero Energy Ready Homes

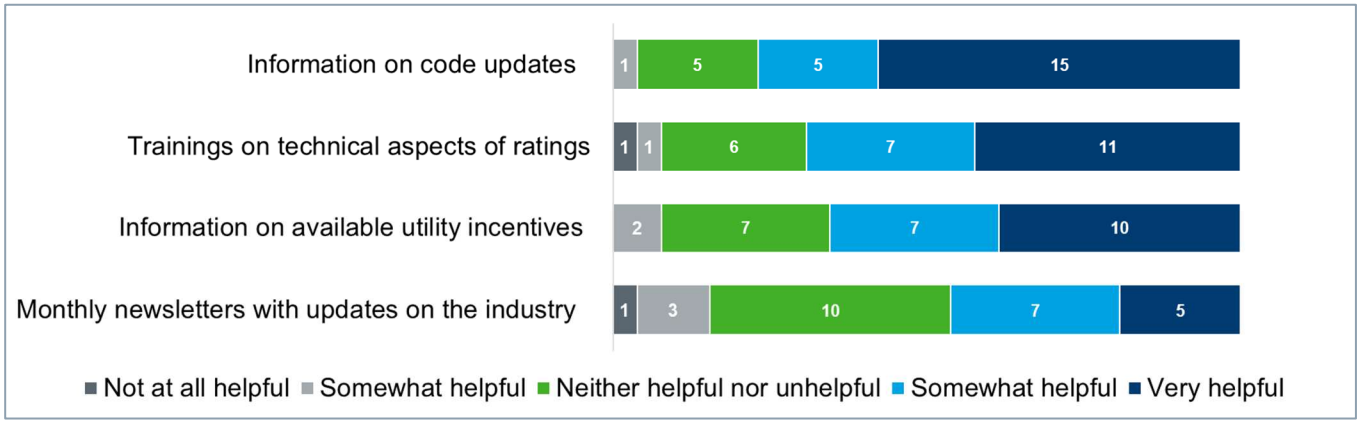
builders looking to run their homes through the program, providing more business opportunities for raters.

Respondents from Oregon and Washington highlighted negative impacts of more stringent codes on their businesses and the larger rater market in their state (n = 9, 41%). Raters felt that these code updates may have increased the need for code-compliance testing, but decreased ratings conducted for above-code programs, which tend to be more profitable for their businesses. This perspective was more prominent among raters who focused their services in Washington, although they still reported spending more time overall on above-code programs. Some Washington raters also reported that they have experienced an increased frequency of builders cold calling them for information about building code updates in the last year or so.

> "I believe that increasingly challenging energy codes requirements have decreased contractor interest in [above-code] programs."
>
> **- Washington Home Energy Rater**

The survey also asked raters to identify opportunities for NEEA (or other organizations) to support them. **Error! Reference source not found.** shows that the most helpful service NEEA or others could provide is information on code updates (n = 20, 77%), with over half of respondents indicating that this information would be very helpful (n = 15, 58%).

Figure 3-1. Rater Ratings of Helpfulness of Support Services (n = 26)



About two-thirds of respondents also shared that they would benefit from help understanding various technical aspects of ratings (n = 18, 69%), and a similar number requested information on available utility incentives (n = 17, 65%). For the respondents who wanted additional guidance on the technical aspects of code ratings, the most commonly mentioned technologies were ventilation focused, with one rater specifically interested in:

> "… ventilation during [wild]fire events. Filtration, occupant controls, best system design for fire season."
>
> - Oregon Home Energy Rater

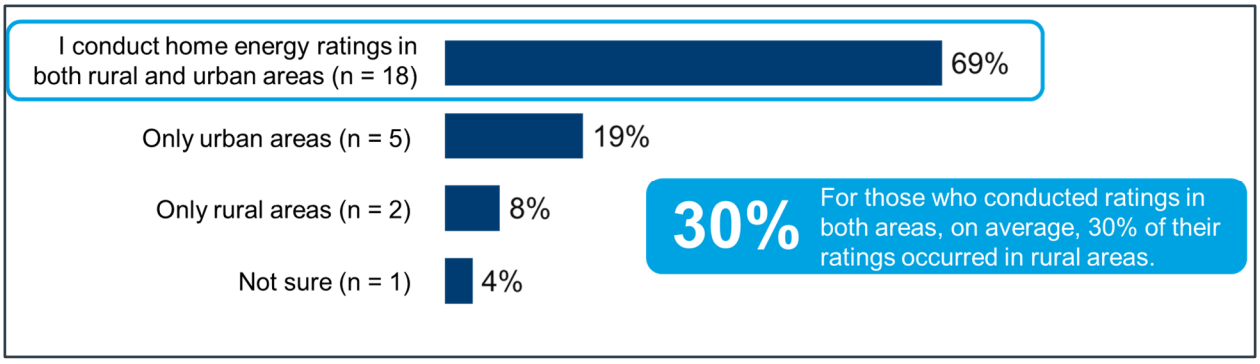
Finally, slightly less than half of respondents shared that monthly newsletters with industry updates would be helpful (n = 12, 46%). An additional 10 respondents (39%) indicated being just neutral because industry updates are already available through other sources like BetterBuiltNW, which NEEA supports.

3.2 Raters Believe that Demand for Home Energy Rating Services is Lower in Rural Areas

Raters believe that the main difference between rural and urban markets is a lower demand for ratings in rural areas. Raters reported no major differences in their business or rating practices in rural versus urban areas, except for logistical issues like longer travel time.

The majority of raters reported conduct home energy ratings in both rural and urban areas (69%). Over three-quarters of respondents conduct home energy ratings in rural areas (77%) within the last year. Among those who conduct ratings in both areas, on average, about 30% of ratings occurred in rural areas. Figure 3-2 shows the distribution of ratings conducted in rural and urban areas.

Figure 3-2. Respondents who Conduct Ratings in Rural vs. Urban Areas (n = 26)



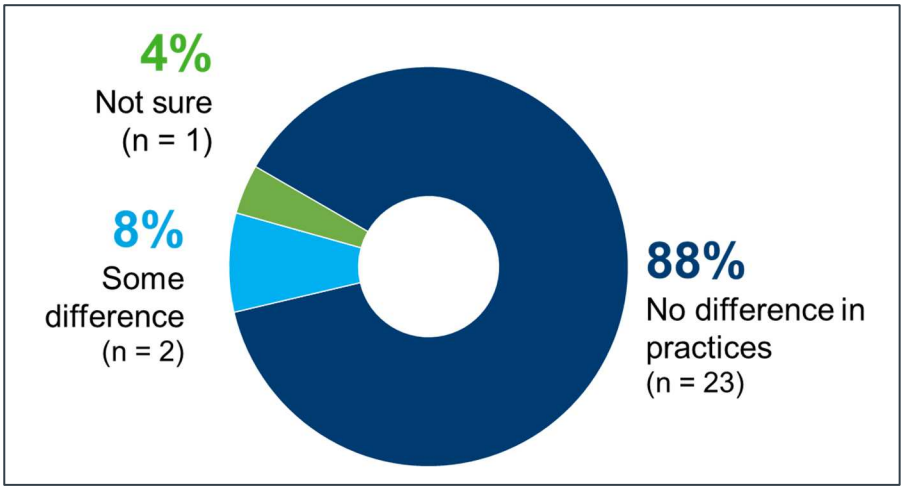
In interviews with providers, we found that they agreed with raters that the main barrier to conducting ratings in rural areas is the lack of demand from builders and homeowners. In their experience, builders in rural areas are not going to commit to building energy-efficient buildings if there is not sufficient financial incentive. Both providers and some rater interviewees believed that builders might not even build to code in rural areas due to a lack of enforcement by local county officials.[13]

In both surveys and interviews, raters reported that a secondary barrier to conducting ratings in rural areas is the travel cost for raters, whose offices are typically based in urban locations. This further reduced the likelihood of a builder asking for ratings in rural areas since visits to rural areas are more expensive, despite raters being open to making the trip.

[13] It was beyond the scope of this study to investigate if this perception was accurate.

When asked if the raters had different practices when conducting home energy rating services in urban areas compared to rural areas, most home energy raters (n = 23, 88%) said their practices do not differ, shown in Figure 3-3.

Figure 3-3. Differences in Business Practices in Rural vs. Urban Areas (n = 26)



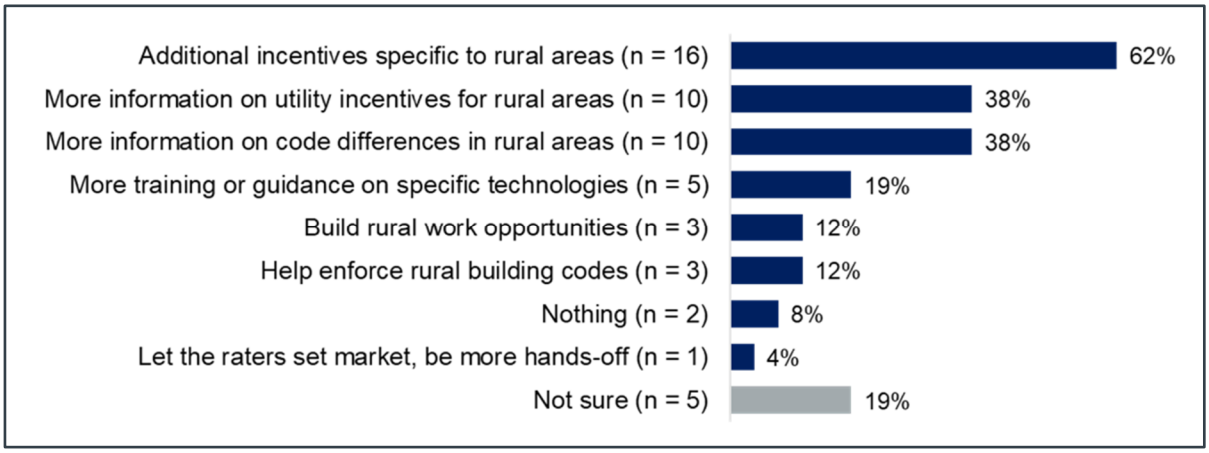
Two respondents (8%) shared that they have different practices when conducting home energy ratings in urban and rural areas. For instance, one respondent charges for travel time if they were conducting ratings outside of the metropolitan areas, and the other mentioned challenges with accessing a particular application for blower door testing. After raising these issues with other raters in follow-up interviews, we ultimately determined that while raters did consistently raise the challenge of additional travel time for reaching rural areas, the challenge with blower door testing was a unique situation.

In interviews, we saw similar findings, with most raters reporting that they feel that there are no major differences in conducting ratings in urban versus rural areas. As one rater put it:

> "We're willing to travel to rural areas. We're based in an urban/suburban area, but we'll travel to rural areas. Our practices don't really change. [We're] trying to stay consistent across the board."
>
> **- Washington Home Energy Rater**

While home energy raters are willing to conduct ratings in rural areas, they feel there are certain steps NEEA or other organizations could take to increase demand in those areas. Over half of respondents (62%) desire additional incentives specific to rural areas. Some respondents also desire more information on utility incentives (38%) and code differences in rural areas (38%), as shown in Figure 3-4.

Figure 3-4. Rater Interests for Support from NEEA or Other Organizations to Conduct Rural Ratings (n = 26)



Note: Respondents could select more than one option.

In the follow-up interviews, responses mostly aligned with the findings from the survey, with raters mentioning incentives as the primary area for improvement. Other common suggestions included help with enforcing code compliance and education for homeowners, builders, and other market actors, as shown in Figure 3-5.

Figure 3-5. Rater Suggestions for NEEA or Others to Support Rural Markets (n = 9)

Raters suggested providing incentives to builders to go above code on residential new construction, once again citing the importance of building up the rural market rather than trying to change the behavior of raters. Another commonly mentioned need for financial support was reimbursing mileage because most of the raters' offices are located in metropolitan areas, which meant traveling to rural areas took more time.

> "Builders, most often, don't seem to want to go beyond the code. There is very little financial incentive for them to do so, particularly in rural areas. Many even find it a hassle to even meet the code because code offices are in urban areas, […] meaning [more] travel time."
>
> **- Oregon Home Energy Rater**

Interviewees also believed that a deeper and more pressing issue in rural areas is indifference towards energy efficiency among both builders and customers. Interviewees shared that builders in rural areas

tend to be less informed or inclined to care about energy efficiency.[14] Interviewees explained that customers purchasing new homes in rural areas shared this mindset. These customer preferences reinforced builders' mindset to deprioritize energy efficient building practices because customers would buy homes anyway. According to raters, many rural code offices are also understaffed and unequipped to properly deal with code compliance, further exacerbating the issue. As one rater put it:

> "Rural practices are generally driven by code compliance, but rural counties don't always enforce the code. This leads to an endless cycle where energy-efficient buildings never get built."
>
> **- Home Energy Rater**

To help with code compliance, staff at one of the main providers in the Northwest suggested that raters could offer their verification services to code offices in rural counties. This could usher in new business for rater organizations and function as useful training for new raters, while at the same time increasing code compliance in rural counties, particularly ones that are understaffed. It is important to note, however, that some jurisdictions are not permitted to hire third parties to conduct code compliance activities.

Despite some raters reporting that compliance may be lower in rural areas, recent code compliance studies conducted for NEEA have found very high code compliance rates in both Oregon (91%)[15] and Idaho (98%)[16]. Further, the Idaho Residential Code Compliance Evaluation found no difference in building envelope tightness across urban and rural areas, which some market actors had raised as a concern about new construction building practices in rural areas. While a recent evaluation showed that overall compliance is lower in Washington (76%) compared with Idaho and Montana, the evaluation found no significant differences in compliance rates across jurisdictions with high, moderate, and low construction volume under the new code. Taken together, these findings suggest that code compliance in rural areas may not be as low as some raters indicated.

Raters expressed a more general desire for additional education and information for rural market actors. They suggested NEEA or other organizations could offer targeted outreach and marketing about the practical benefits of energy efficiency to both builders and potential homebuyers. One rater emphasized that they felt that educating homebuyers was the key:

> "Education is always a good thing […] to the community. I think consumers can help drive the change in the market by pressuring builders."
>
> **- Washington Home Energy Rater**

Ultimately, while help with travel costs and providing higher incentives to raters for conducting ratings for above-code programs could function as a temporary boost to the market for home energy rating services in rural areas, raters felt that supporting code compliance and changing attitudes would

[14] These interviewees primarily served Washington State.

[15] Oregon Residential Code Compliance Evaluation, 2014, NEEA Oregon Residential Code Compliance Evaluation

[16] Idaho Residential Code Compliance Evaluation, 2024, NEEA Idaho Residential Code Compliance Evaluation

ultimately prove to be more effective. According to raters, until there is a shift in the perceptions of energy efficiency in rural communities, that market would always lag behind the market in urban areas.

4 Provider Experiences

To become an official home energy rater, candidates must go through a certification process administered by an accredited provider. Providers therefore set the tone for the rater market and have the responsibility of ensuring that home energy raters are providing quality rating services. They help administer rating programs by certifying raters, providing a selection of rating software programs, providing quality assurance (QA) for raters, and marketing rating services. Most providers also offer trainings for specific technologies and answer any questions that raters might have on building codes and requirements. This section describes raters' experiences and preferences with their providers.

4.1 Providers Find Working in the Northwest Challenging

The WSU Energy Program served as the main provider for raters in the Northwest beginning in 2005, but their staff chose to stop providing active services towards the end of 2023. Following WSU's exit, raters moved on to other providers, including some national organizations with headquarters outside the Northwest. Towards the latter half of 2024, Earth Advantage, a prominent rater organization in Northwest, became accredited as a new provider, but other options still remain.

We conducted interviews with staff members at multiple different providers that have served the Northwest in recent years to better understand their perspective on the market for home energy rating services. Overall, providers find it challenging to work with raters in the Northwest due to the perceived uniqueness of the region. For instance, one provider reported that they felt spread thin by the substantial number of small, "mom-and-pop" rater businesses, which they felt were difficult to manage compared to a more consolidated rater market. Providers also called out the challenge of working in a region that often differed from national building standards. For example, providers noticed that many raters in the Northwest seem to have different methods for testing, inspections, and energy modeling than what is described by the HERS Index. Builders in Washington also must work with some of the most stringent energy codes in the country. Therefore, providers serving the Northwest stated that their main goal after taking over from WSU is to continue to help bridge the gap between the unique elements of the Northwest and the need for raters to follow national standards for testing methodology.

In addition to this primary goal, providers mentioned a handful of other challenges that they have had working with raters in the Northwest, including:

- Poor communication during the QA process
- Lack of proper certification for employees at certain rater organizations
- Difficulty for new raters to enter the market in the Northwest due to the lack of standardized practices
- Lack of raters in Montana

To help with some of these obstacles, providers suggested that NEEA or other organizations could hold forums to engage relevant professionals. In interviews, staff at the new providers shared that ironing out issues at in-person conferences would be much more effective than trying to do it one at a time with raters over the phone or by email. They noted that raters appear much more open to discussions when speaking face-to-face. One provider also discussed the challenge of providing training content that addresses the needs of both new and more experienced raters. They want to provide content ranging from training for

energy modeling, ventilation technology, standard 310[17], heat pumps, and more, but they do not currently have staff that are experts at teaching those topics in an efficient, easy-to-understand manner. Provider staff expressed interest in working with NEEA to produce and deliver that content.

4.2 Raters Report Mixed Satisfaction with Providers

With the departure of WSU as an official provider, two-thirds of respondents 68%) now use the Building Efficiency Resource (BER) for training and certification and three use Earth Advantage. Table 4-1 shows the distribution of current providers listed by raters. Given the recency of WSU's exit from the market, there were three raters that indicated they would wait until a local provider opened up again before attaching themselves to a provider (and thus have no provider currently).[18] Two raters chose to affiliate with other non-regional providers. We expect these proportions may change as new providers enter the market and raters find their best fits.

Table 4-1. Current Providers Used by Survey Respondents (n = 25)

Provider	N	%
Building Energy Resource (BER)	17	68%
Earth Advantage	3*	12%
None	3	12%
Building Science Institute (BSI)	1	4%
Energy Efficient Homes Midwest (EEHM)	1	4%
Total	**25****	**100%**

**These raters were in discussions with Earth Advantage though they had not officially launched their program at the time of interview*

***One rater preferred not to say*

One of the most important functions of providers is to offer QA for raters on a yearly basis. As seen in Table 4-2, about two-thirds of raters (69%) had received an on-site review by a provider staff member within the last year, as required by RESNET rules.

[17] This is the standard for grading he installation of HVAC systems as designated by RESNET

[18] As noted below, RESNET rules require an annual on-site review by a provider. It is unclear if these raters with no providers were conducting ratings for purposes outside of a HERS rating, were still using an on-site review from WSU-EP as their annual review, were not following RESNET rules, or had some other explanation for the lack of provider.

*Table 4-2. Most Recent On-Site Review by a Provider QA Designee (n = 23)**

Provider	N	%
In the last 3 months	7	30%
Between 3 to 6 months ago	5	22%
Between 6 months to 1 year ago	4	17%
Between 1 year and 2 years ago	5	22%
More than 2 years ago	2	9%
Total	**23**	**100%**

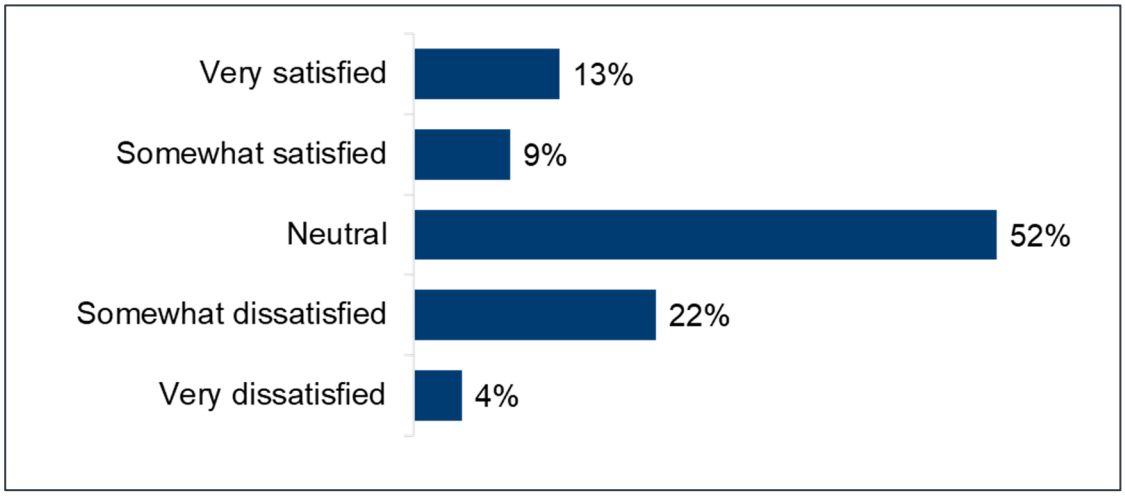
**3 raters were "not sure"*

The seven raters who reported that it had been longer than a year since a provider had conducted an on-site QA review at one of their projects gave the following reasons for why:

- They were in a transition period between providers (n = 2),
- Their provider did not have the bandwidth to do so (n = 2),
- Their low volume of ratings made them a lower priority for the provider (n = 2), or
- They chose a virtual review (n = 1).

Next, we assessed raters' satisfaction levels, perceived challenges, and preferences when working with their current providers, following WSU's exit. Generally, raters were slightly more likely to report dissatisfaction (26%) with their provider than they were to report being satisfied (22%), as shown in Figure 4-1. About half of raters (52%) reported feeling "neutral" about their provider.

*Figure 4-1. Rater Satisfaction with Current Provider (n = 23)**



**Note: 3 respondents said "Not sure"*

Raters who were at least somewhat satisfied with their provider most commonly cited the wide variety of online resources from their current provider. This included trainings on newer software like Ekotrope, trainings on specific testing methodology, and more readily available staff to answer questions about

building codes. On the other hand, raters who were only neutral or somewhat dissatisfied with their provider raised two main challenges:

- **Lack of provider communication and availability.** About half of respondents (8 out of 17) indicated challenges with communication and accessibility of provider staff. One reported:

  > "[It is frustrating] not knowing who to go to when I have a problem and [there is] poor or non-existent training and communication on their part on their requirements and processes for new raters."
  >
  > **-Washington Home Energy Rater**

  Many raters found the transition from their previous provider to their new one to be difficult, primarily due to changes in expectations around QA, paperwork, and the rating submittal process. As shown from the above quote, some raters felt that part of the reason for the shaky transition was a lack of communication from staff.

- **Lack of local support.** Nearly half of respondents (7 out of 17) expressed frustration about the lack of local providers following WSU's exit. Many shared the sentiment of this rater who said:

  > **"**It is a huge headache having a provider that is not local, can't provide any field support or in-person training opportunities in any kind of timely manner… There needs to be 'boots on the ground' support in the PNW and point person(s) to contact to assure standards are being met in our region."
  >
  > **-Washington Home Energy Rater**

  Further, the Northwest rater community considers themselves separate and unique from the rest of the country, which makes it difficult for non-local providers to support them. There were also practical challenges involved with a lack local support, including the cost of travel for in-person QA checks or difficulty in scheduling in-person meet ups. Notably, we found that none of the providers we spoke to during interviews had a formal process of tracking rater feedback on their services. They all relied on individual experiences working with raters.

5 Key Findings

This final chapter presents our key findings for the NEEA Home Energy Rater Market Research project. Several key findings also have associated recommendations based on our analysis and suggestions from raters and providers.

- **Key Finding 1: We identified 111 unique raters in the Northwest and determined that they primarily serve Washington (59 raters) and Oregon (36 raters). Fifteen raters reported that they offer services in Idaho and five offer services in Montana**. The percent of raters offering services by state roughly aligns with the state populations. Although our search identified at least 111 unique raters, providers estimate fewer than half of these raters are active (that is, have conducted ratings in the last year). Providers believe that there are currently 50 to 70 active raters, with 95% residing in Washington and Oregon.
- **Key Finding 2: Most raters in the Northwest work as their own independent companies with two or three staff rather than as part of a larger organization.** According to providers, the low number of national rater organizations along with many small businesses is relatively unique to the Northwest.
- **Key Finding 3: Few new raters are coming into the industry, with most raters having already been in the industry for over five years.** Providers anticipate that there will soon be a need for new raters because of IRA funds incentivizing above-code homes. These funds have the potential to contribute towards uptake of energy efficient residential measures and above-code building, but the home energy raters market must be ready to handle the increased demand. Additional research on administering IRA funds in Idaho, Montana, Oregon, and Washington could help determine the number of active raters and the skillsets needed to meet increasing demand for home energy ratings.
- **Key Finding 4: There is a lack of racial and gender diversity among raters in the Northwest, and only one of the 26 surveyed raters offered services in a language other than English.** Additional research could help investigate whether there are additional barriers to certain members of the workforce – specifically women, and people of color, and individuals whose primary language is not English – preventing them from entering the rater industry. Additional research could also help identify how often there is a language barrier between raters and the builders or other tradespeople that the rater interacts with. Once barriers are identified, workforce development organizations that serve diverse populations can be a key resource for training the new raters that are currently underrepresented in the field.
- **Key Finding 5: Most raters report that they do not alter their business practices between rural and urban markets, but they report conducting fewer ratings in rural areas due to a perceived lack of market demand.** Raters believe builders in rural areas are less excited about energy efficiency than those in urban areas and are also less likely to be concerned about meeting code. Raters additionally indicated that code offices in rural counties could use additional support with code enforcement due to being understaffed. According to both raters and providers, an adequate financial incentive is key to encouraging builder participation in above-code or utility programs that require ratings. Raters additionally indicated that code offices in rural counties could use additional support with code enforcement due to being understaffed. Raters described travel time and inconvenience as a secondary barrier to conducting ratings in rural areas, though

they noted they would navigate these obstacles if demand was high enough. Educational campaigns that share the value proposition and benefits of energy efficiency for builders could help accelerate uptake of energy efficiency in rural areas.

- **Key Finding 6: When discussing the factors that contribute to a good working relationship with their provider, several raters reported that the most significant factor was the provider having a local presence followed by timely feedback on their projects and receiving timely answers to their questions about code updates.** Many raters mentioned being frustrated when a provider was slow or inconsistent in their response times. They valued providers that could respond quickly and could offer a wide array of online resources. Meanwhile, **the major providers serving the Northwest expressed challenges with the unique nature of the Northwest's building codes and having to work with the many small rater organizations that comprise the rater population of the region, primarily citing issues with communication.** Both providers and raters expressed interest in collaborating more closely with one another to overcome these gaps in communication. They suggested that more forums or conferences, particularly events held in states with fewer raters like Idaho and Montana, could be good venues for collaboration.

6 Appendices

The appendices include the following data instruments that we used to conduct this research with home energy raters and providers, including the:

- Rater Survey Instrument
- Rater Follow-Up Interview Guide
- Provider Topic Guide

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4/15/2024

NEEA Home Energy Rater Study: Survey Instrument

INTRODUCTION

To support the NEEA Codes Team, the TRC project team will be conducting a survey with home energy raters that are located in the states served by NEEA. The survey will be conducted online using Qualtrics. For the purposes of this study, NEEA defined "raters" as individuals who conduct verifications or testing of homes to evaluate elements of the home's energy use and performances. Activities include rating for programs including but not limited to: HERS®, Building Performance Institute, ENERGY STAR® Homes, Association of Energy Engineers, and other green labels such as International Passive House Association, Earth Advantage and Built Green; verifying homes for code compliance; and making recommendations to residents or builders for energy-related improvements.

The remainder of the introduction provides the evaluation objectives and research questions which the survey has been designed to address, a description of the sample population and the targeted completes, and fielding instructions for the survey. The introduction is followed by the survey guide.

Evaluation Objectives

The objectives for the NEEA HER Market Research Study are to:

- Develop estimate of number of home energy raters currently working in the new construction market in the Northwest.
- Provide an assessment of current raters and their business practices.
- Provide an assessment of raters' perceptions of the current market for home energy ratings, with a focus on the new construction market.
- Understand how the market has changed in the last three years.
- Provide an assessment of how raters' practices and perceptions differ across urban and rural areas.
- What are the gaps in the market where NEEA can support?

Table 1 presents the research themes which this HER survey is designed to address, linking each research theme to the associated evaluation objective and survey question.

Table 1. Evaluation Objective, Survey Research Themes & Survey Question Crosswalk

Evaluation Objective	Question Number(s)
Develop estimate of number of home energy raters currently working in the new	Intro1, A1 – A1a, D1 – D3

construction market in the Northwest.	
Provide an assessment of current raters and their company practices.	A1 – A7b, B4, B5
With a focus on the new construction market, provide an assessment of raters' perceptions of the current market for home energy ratings.	B1 – B3, B1 – B5, C1 – C6
Provide an assessment of how raters' practices and perceptions differ across urban and rural areas.	A8 – A8d
What are the gaps in the market where NEEA can support?	B4, C5 – C6a
Understand how the market has changed in the last three years.	B1, B2, C1

Sample & Target Completes

Due to the small population of home energy raters in the PNW, the research team will send the survey invitation to a census of rater companies. The first wave of invitations will include at least one rater at all rater companies with contact information. If necessary, due to response rate, a second wave of invitations will be sent to any remaining contacts. We will target survey completions with at least 20 raters, including 10 raters each that work in urban and rural areas, and at least 10 each in Oregon and Washington. Idaho and Montana only have a few raters each, but we will contact all active raters in those states' multiple times with a survey request. Although we cannot guarantee this completion number given the small population, we will make all reasonable efforts to achieve them, including making repeated efforts to contact raters to meet these targets.

Fielding Instructions

TRC will field this survey as an online survey. Below are the instructions or fielding the online survey, followed by instructions for the phone survey.

Online survey fielding instructions

- Field the survey through an online survey platform.
- Pre-test survey programming prior to any survey fielding.

- Perform a pre-test (soft launch) of the survey by sending invitations to 10% of the survey sample
- Recruiting via email will begin with a soft launch sample of respondents and will be followed by a full launch.
- Examine the responses of pre-test survey respondents and modify the survey if needed before launching to the rest of the sample.
- Send three emails to the sampled participants: one initial invitation and two follow-up reminder emails to those who have not yet completed the survey. The first reminder email will be sent approximately 4 company days after the initial survey invitation was sent, and a second follow-up, if necessary, 7 company days after the initial survey invitation.
- The survey will close once we have met or exceeded our target, or once we have exhausted the sample.

Online Survey Recruitment Emails

Survey Invitation Email
Subject: Help NEEA Understand Home Energy Rater Needs for $50 e-Gift Card
Body:

Hello Home Energy Rater,

TRC is conducting a survey with home energy raters on behalf of the Northwest Energy Efficiency Alliance (NEEA) to better understand raters' perspectives on the industry. Feedback will help NEEA understand how to better support your needs and the needs of other raters.

We know your time is valuable, so **we are providing a $50 e-gift card for completing this 10-15 minute survey**. To qualify, you must have conducted at least one energy performance testing or rating service in WA, OR, MT, or ID in the past 3 years. If you would like to participate in the survey, please follow this link to the survey or copy and paste it into your browser:
[LINK]

Please know that any information you provide will remain strictly confidential and results will be reported in aggregate.

If you have questions about this survey, please contact TRC at [redacted] or email [redacted]. If you would like to contact NEEA to verify the legitimacy of this study, please contact [redacted]

Thank you in advance for sharing your experiences and your time and thank you for the services you provide in the Pacific Northwest!

Sincerely,

[redacted]

Reminder

Survey Invitation Email
Subject: Don't forget: Home Energy Rater Survey for $50 e-Gift Card
Body:

Hello Home Energy Rater,

TRC is conducting a survey with home energy raters on behalf of the Northwest Energy Efficiency Alliance (NEEA) to better understand raters' perspectives on the industry. Feedback will help NEEA understand how to better support your needs and the needs of other raters.

We know your time is valuable, so **we are providing a $50 e-gift card for completing this 10-15 minute survey**. To qualify, you must have conducted at least one energy performance testing or rating service in WA, OR, MT, or ID in the past 3 years. If you would like to participate in the survey, please follow this link to the survey or copy and paste it into your browser:
[LINK]

Please know that any information you provide will remain strictly confidential and results will be reported in aggregate.

If you have questions about this survey, please contact TRC at [redacted] or email [redacted] If you would like to contact NEEA to verify the legitimacy of this study, please contact [redacted]

Thank you in advance for sharing your experiences and your time and thank you for the services you provide in the Pacific Northwest!

Sincerely,

[redacted]

Final Reminder

Survey Invitation Email
Subject: Last Chance: Home Energy Rater Survey with NEEA for $50 e-Gift Card
Body:

Hello Home Energy Rater,

TRC is conducting a survey with home energy raters on behalf of the Northwest Energy Efficiency Alliance (NEEA) to better understand raters' perspectives on the industry. Feedback will help NEEA understand how to better support your needs and the needs of other raters.

We know your time is valuable, so **we are providing a $50 e-gift card for completing this 10-15 minute survey**. To qualify, you must have conducted at least one energy performance testing or rating service in WA, OR, MT, or ID in the past 3 years. If you would like to participate in the survey, please follow this link to the survey or copy and paste it into your browser:

[LINK]

Please know that any information you provide will remain strictly confidential and results will be reported in aggregate.

If you have questions about this survey, please contact TRC at [redacted] or email [redacted] If you would like to contact NEEA to verify the legitimacy of this study, please contact [redacted]

Thank you in advance for sharing your experiences and your time and thank you for the services you provide in the Pacific Northwest!

Sincerely,

[redacted]

Survey Sections

- **Intro.** Introduction & Screening
- **A.** Rater Demographics and Company Practices
- **M.** Market for Home Energy Ratings
- **P.** Feedback on Providership
- **Close.** Closing

SURVEY GUIDE

Section Intro: Introduction & Screening

INTRO1

Thank you for your interest in our survey! Home energy raters who qualify and complete this survey will receive a $50 e-gift card in appreciation for your valuable feedback.

Your participation will help NEEA better understand the home energy rater market in the Northwest and to better meet the energy needs of raters such as yourself.

First, let's see if you qualify for the survey.

[ASK ALL ONLINE and IF Intro1 = 1]

[ONLINE: FORCE RESPONSE]

Intro1 In the past three years, approximately how many **new construction** homes have you provided home energy rating services for in Idaho, Montana, Oregon, and Washington? We define ratings as verifications or testing to evaluate elements of the home's energy use or performance.

1. 1 to 10
2. 11 to 50
3. 50 to 100
4. More than 100
5. None **[TERMINATE]**

[SHOW IF INTRO1 <> 5]

[ONLINE]
INTRO2. You qualify for this survey! Your participation in this research is voluntary. Your responses will be kept confidential and responses will only be shared in aggregate. Under no circumstances will the information you share with us be used to directly sell or market any products or services to you. Thank you for agreeing to participate in this survey.

To begin, we would like to get a better understanding of how your company operates.

Section A: Rater Demographics and Company Practices

A1. To your best estimate, what percent of your business is based on home energy ratings?

1. **[SCALE 0 TO 100]**
98. Not sure

[ASK IF A1 <= 50]

A1a. What other core services do you provide?

1. **[OPEN ENDED]**
98. Not sure

A2. Do you work independently as a home energy rater or are you part of a larger company?

1. I work independently
2. I am an independent contractor, but I am affiliated with a larger company
3. I work as part of a larger organization
4. Other, **[PLEASE DESCRIBE]**

A2a. What is the name of the company that you work for that conducts home energy ratings?

1. **[OPEN ENDED]**

A3. Do you conduct home energy ratings on single-family residential units, multi-family residential units, or both types of units?

1. Only single-family
2. Only multi-family
3. Both

[ASK IF A3 = 3]

A3a. By your best estimate, what percentage of the residential units that you conduct home energy ratings on are single-family?

1. **[SCALE 0 TO 100]**

98. Not sure

A4. To the best of your abilities, could you estimate the percentage of time you spend conducting home energy ratings for any of the following reasons? **[FORCE VALUES TO ADD UP TO 100]**

1. To verify code compliance **[SCALE 0 to 100]**
2. To verify eligibility for utility programs **[SCALE 0 to 100]**
3. To verify eligibility for a home energy labeling program **[SCALE 0 to 100]**

0. Other, **[PLEASE SPECIFY] [SCALE 0 to 100]**

A5. Which of the following certifications do you hold or are you qualified to conduct a home energy rating for? Select all that apply. **[MULTIPLE RESPONSE]**

1. Residential Energy Services Network (RESNET) Rating Field Inspector (RFI)
2. RESNET Home Energy Rating System Rater (HERS)
3. IECC/HERS Compliance Specialist Designation
4. ENERGY STAR
5. LEED for Homes
6. BPI New Construction
7. Building Science Institute
8. Phius Certified Rater

0. Other, **[PLEASE SPECIFY]**

A6. Approximately how many times have you conducted any of the following services as part of a home energy rating process within the last two years?

[Grid Table, NUMERIC VALUE]

- **A6a.** Equipment verification, such as verification of appliance efficiency, insulation levels, and other energy measures
- **A6b.** Blower door testing
- **A6c.** Duct blaster testing
- **A6d.** Whole home energy modeling
- **A6e.** Mechanical ventilation testing
- **A6f.** Recommendations to customers on improving energy efficiency
- **A6g.** Other, (please specify)

A7. In which states do you conduct performance testing on homes? Select all that apply. **[MULTIPLE RESPONSE]**

1. Washington
2. Oregon
3. Idaho
4. Montana
5. Somewhere else, **[PLEASE SPECIFY]**

A7a. In which state do you conduct home energy ratings most often?

1. Washington **[DISPLAY IF A7 = 1]**
2. Oregon **[DISPLAY IF A7 = 2]**
3. Idaho **[DISPLAY IF A7 = 3]**
4. Montana **[DISPLAY IF A7 = 4]**
5. Somewhere else, **[PLEASE SPECIFY]**

A8. Would you consider the homes for which you conduct home energy ratings to be located in rural areas, urban areas, or both? Rural areas are defined as a city, town, or unincorporated area that has a population of not more than 10,000 inhabitants.

1. Only rural areas
2. Only urban areas
3. I conduct home energy ratings in both rural and urban areas

98. Not sure

[ASK IF A8 = 3]

A8a. To your best estimate, what percentage of the homes that you conduct home energy ratings in are located in rural areas?

1. **[SCALE 0 TO 100]**
98. Not sure

A8b. Do you have different practices when conducting home energy rating services for homes in urban areas compared to homes in rural areas?

1. Yes, **[PLEASE SPECIFY]**
2. No
98. Not sure

A8c. Is there anything that NEEA or other organizations could do to encourage you to conduct home energy ratings in rural areas? Select all that apply. **[MULTIPLE RESPONSE]**

1. Provide more information on utility incentives specific to rural areas
2. Provide additional incentives specific to rural areas
3. Provide more training or guidance on specific technologies
4. More information on code differences in rural areas
5. There is nothing that NEEA or other organizations can do
0. Other, **[PLEASE SPECIFY]**
98. Not sure

[ASK IF A8c = 3]

A8d. Please describe the technologies you would like more training or guidance on that would support rating services in rural areas.

1. **[OPEN ENDED]**
98. Not sure

Section B: Market for Home Energy Ratings

Next, we wanted to get your perception of the home energy rating market.

B1. What have been some notable changes in the home energy rater market that has affected your business in the last three years?

1. **[OPEN END]**
99. REF

B2. In your own words, how would you describe the evolution of your home energy rating practices over the past five years?

1. **[OPEN END]**

99. REF

B3. How do you generate leads for home energy ratings?

1. Through local utility programs
2. Directly from new construction home builders
3. Word of mouth
4. Other, **[PLEASE SPECIFY]**

98. Not sure

B4. Please rate the importance of the following areas in which NEEA can support your company as a home energy rater, using a 1 to 5 scale where 1 is "Not at all important" and 5 is "Very important." You can also indicate if something was not applicable to your experience:

1. Not at all important
2. Somewhat unimportant
3. Neither important nor unimportant
4. Somewhat important
5. Very important

77. NOT APPLICABLE

99. REF

[Grid Table]

B4a. Trainings on energy modeling, performance testing, building science, and other technical aspects of home energy rating

B4b. Webinars or regular meetings to allow raters to provide feedback

B4c. Information on available utility incentives

B4d. **Information on** code updates

B4e. Monthly newsletters with updates on the industry

B4f. Other, **[PLEASE SPECIFY]**

Section C: Feedback on Providership

C1. In 2023, the Washington State University Energy Program announced that they were no longer going to serve as a home energy provider. How, if at all, has that affected you or your company?

1. **[OPEN ENDED]**
98. Not sure

C2. Which provider currently certifies and trains your company's raters?

1. Washington State University Energy Program
2. Earth Advantage
3. Building Efficiency Resource ("The BER")
4. Other, **[PLEASE SPECIFY]**

C3. On a scale from 1 to 5, where 1 is "Very dissatisfied" and 5 is "Very satisfied", how would you rate your overall satisfaction with your current home energy provider?

1. **[SCALE 1 TO 5]**
98. Not sure

[ASK IF C3 <= 3]

C4. In your own words, describe what you consider to be the main challenges you are facing with your home energy provider:

1. **[OPEN ENDED]**
98. Not sure

[ASK IF C3 > 3]

C5. Which aspects of your home energy provider are you particularly satisfied with?

1. **[OPEN ENDED]**
98. Not sure

C6. To the best of your recollection, when was the last time a QA Provider performed on an on-site review of one of your rated homes?

1. In the last 3 months
2. Between 3 to 6 months ago
3. Between 6 months to 1 year ago
4. Between 1 year and 2 years ago

5. More than 2 years ago
98. Not sure

[ASK IF C6 >= 4]

C6a. Why has it been more than a year since an on-site QA review was conducted?

1. **[OPEN ENDED]**
98. Not sure

Section D: Demographics of Rater

D1. Besides English, do you offer your home energy rating services in any other language(s)?

1. Yes
2. No

[ASK IF D1 = 1]

D1a. Select all other languages in which you offer home energy ratings. **[MULTIPLE RESPONSE]**

1. Spanish
2. French
3. Mandarin Chinese
4. Russian
5. Other **[PLEASE SPECIFY]**
99. Prefer not to say

D2. What is your racial or ethnic background? Select all that apply. **[MULTIPLE RESPONSE]**

1. White
2. Black or African American
3. Hispanic or Latino
4. Asian
5. Native American or Alaska Native
6. Native Hawaiian or Pacific Islander
7. Other **[PLEASE SPECIFY]**
99. Prefer not to say

D3. What gender do you identify with?

1. Male
2. Non-binary
3. Female
4. Prefer to self-describe, **[PLEASE SPECIFY]**
99. Prefer not to say

Closing

Close1. Is there anything else you think we should know about your experience as a home energy rater?

1. Yes, please specify: **[OPEN END]**
2. No

Close2. These are all the questions we have. As a thank you, we'd like to send you a $50 e-gift card. Please provide an email address for the gift card recipient—this could be you or anyone else of your choosing.

[OPEN END]

Close3. We are conducting 20-to-25-minute phone interviews of with a sample of the survey respondents to discuss some of the feedback in more depth. We would provide an additional $100 e-gift card as appreciation for your time. Are you interested in providing additional feedback to NEEA? To ensure a breadth of responses, we may not request interviews with all interested raters.

1. Yes
2. No

[CLOSING] Thank you for taking the time to provide feedback about your experience as a home energy rater in the Northwest.

807 E Roy Street, Suite 301
Seattle, WA 98102

5/21/2024

NEEA Home Energy Rater Study: Interview Guide

INTRODUCTION

To support the NEEA Codes Team, the TRC project team will be conducting a follow-up interview with home energy raters that have completed an initial survey and agreed to be interviewed. The interview will be conducted over the phone by the research team. For the purposes of this study, NEEA defined "raters" as individuals who conduct verifications or testing of homes to evaluate elements of the home's energy use and performances. Activities include rating for programs including but not limited to: HERS®, Building Performance Institute, ENERGY STAR® Homes, Association of Energy Engineers, and other green labels such as International Passive House Association, Earth Advantage and Built Green; verifying homes for code compliance; and making recommendations to residents or builders for energy-related improvements.

The remainder of the introduction provides the evaluation objectives and research questions which the interview guide has been designed to address. The introduction is followed by fielding instructions, the sample and target completes, the recruiting email, and the interview guide.

Evaluation Objectives

The objectives for the NEEA HER Market Research Study are to:

- Develop an estimate of number of home energy raters currently working in the new construction market in the Northwest.
- Provide an assessment of current raters and their business practices.
- Provide an assessment of raters' perceptions of the current market for home energy ratings, with a focus on the new construction market.
- Understand how the market has changed in the last three years.
- Provide an assessment of how raters' practices and perceptions differ across urban and rural areas.
- Understand the gaps in the market where NEEA can provide support

Table 1 presents the research themes which this HER study is designed to address, linking each research theme to the associated evaluation objective and interview. The interview guide is not necessarily meant to address all of these objectives as some were more suited to be covered in the survey. Instead, the main purpose of the interviews is to dig deeper into some of the responses given in the survey to provide additional nuance.

Table 1. Evaluation Objective, Interview Research Themes & Survey Question Crosswalk

Evaluation Objective	Addressed in the Survey	Interview Question Numbers
Develop estimate of number of home energy raters currently working in the new construction market in the Northwest.	Yes	N/A
Provide an assessment of current raters and their company practices.	Partial	Section A
With a focus on the new construction market, provide an assessment of raters' perceptions of the current market for home energy ratings.	Partial	Section B
Provide an assessment of how raters' practices and perceptions differ across urban and rural areas.	Partial	A5, A6, A6a
What are the gaps in the market where NEEA can support?	Partial	B4
Understand how the market has changed in the last three years.	Partial	B2, Section C

Sample & Target Completes

The research team will target 8 to 10 interviews with raters. At least one of these interviews will be with Earth Advantage, due to their unique understanding of the home energy rater market in the Northwest. To the extent that is possible, we will aim to get a representative mix of raters through the following criteria:

- At least one rater serving each state served by NEEA
- A mix of raters that serve either rural or urban areas or both
- A mix of raters that serve either single-family and multifamily homes or both

Fielding Instructions

We will attempt to schedule interviews via email provided in survey.

The following fielding guidelines should be used for recruiting home energy raters.

- Attempt to reach each rater by email three times.
- Provide available times for raters in email but remain flexible if they have suggestions.
- Ensure interviews are roughly 30 minutes long

Recruiting Email for Raters

Interview Invitation Email
Subject: Follow-Up Interview to Understand Rater Needs for $100 e-Gift Card
Body:

Hello [rater's name],

Thank you for participating in our survey and for agreeing to be available for a follow-up interview. Your feedback will help NEEA understand how to better support your needs and the needs of other raters.

We know your time is valuable, so **we are providing a $100 e-gift card for completing this phone interview.** Given the nature of the research, we expect the interview to take 30 minutes. Would any of these times work well for you? If not, please feel free to suggest a more convenient time, we are happy to work with your schedule.

[PROVIDE DATES AND TIMES]

Please know that any information you provide will remain strictly confidential and results will be reported in aggregate.

If you have questions about this research, please contact Harry Gao (TRC project manager) at 206-338-0982 or email hgao@trccompanies.com. If you would like to contact NEEA to verify the legitimacy of this study, please contact Meghan Bean at MBean@neea.org.

Thank you in advance for sharing your experiences and your time and thank you for the services you provide in the Pacific Northwest!

Sincerely,

Harry Gao

Interview Sections

- **Introduction.** Introduction
- **A.** Company Practices
- **B.** Market for Home Energy Ratings
- **C.** Feedback on Providership

- **Close.** Closing

INTERVIEW GUIDE

Introduction

Thank you for taking the time to speak with us today. As a reminder, we are conducting this interview to help NEEA better understand the home energy rater market in the Northwest. During the interview we will plan on discussing your business practices, your perception of the home energy rater market, and your experiences with providers. Occasionally, we will reference answers you gave during the survey.

All of your responses will remain completely anonymous. Do we have your permission to record this interview? This is solely for note-taking purposes.

Section A: Company Practices

A1. Could we start with some brief introductions, including your name and your role at your company?

A1a. Could you give a description of your experiences with home energy ratings?

A1b. **[ASK IF SURVEY INDICATED THEY WORKED ON RATINGS PART-TIME]** During the survey, you indicated that less than 50 percent of your business is focused on home energy rating. What other services do you provide?

A2. What are your main motivations for being in the home energy rating industry?

A2a. What are the main benefits and challenges of being in this industry?

A3. What are your main reasons for conducting home energy ratings? **[PROBE]: For common labeling programs, local utility programs, code compliance, and other reasons.**

A4. Have the amount of home energy ratings you've conducted increased, decreased, or stayed the same in the last year? Why?

A5. During the survey, you mentioned that you serve [Rural, Urban, Both] areas. How did you make the decision to base your business on these areas? **[IF BOTH]: How do you adapt your practices, if at all, to support rural vs urban areas?**

[ASK ONLY IF THEY SERVE RURAL AREAS]

A6. Besides providing additional monetary incentives for home energy ratings in rural areas, is there anything NEEA or another organization could do to encourage to conduct home energy ratings in rural areas?

A6a. **[ASK IF THEY CHECKED A8c_3 (training on technology)]:** In the survey, you had indicated that more training or guidance on technologies specific to rural areas would be helpful. Could you go into more detail on what technologies would be helpful?

A7. During the survey, you mentioned that you work in [Single-Family, Multi-Family, Both] areas. How did you make the decision to base your business on these building types?

Section B: Market for Home Energy Ratings

Next, we wanted to get your perception of the home energy rating market.

B1. In the survey, you had mentioned **[SURVEY RESPONSE TO B1]** as notable changes in the home energy rater market in the last three years. Could you go into more detail about these changes and how they affected your business?

B2. In your own words, how would you describe the evolution of your home energy rating practices over the past five years? Why have your practices evolved in this way? **[PROBE: Focus on multi-family, focus on rural areas by charging travel times, constant education of building codes]**

B2a. What home energy rater software, if any, do you use? **[PROBE: Ekotrope, HouseRater]**

B3. How do you generate leads for home energy ratings? **[PROBE: Word of mouth, directly from new construction builders, through local utility]**

B4. What kind of support, if any, do you think would be most useful for NEEA to provide? **[PROBE: Trainings, webinars for feedback, information on utility incentives]**

Section C: Feedback on Providership

C1. What were your experiences with Washington State University as a home energy provider? How were you affected when they announced that they were no longer going to service as a provider?

C2. Who is your current provider? What are some of the main challenges, if any, you've had in moving to your new provider? **[PROBE: Cost, lack of regional knowledge, poor training and education]**

[IF SATISFACTION WITH PROVIDER < 3 IN SURVEY]

C3. In the survey, you had rated your satisfaction with your current home energy provider a ____ out of 5. Could you go into more detail on why you gave that rating?

Closing

Close1. Is there anything else you think we should know about your experience as a home energy rater?

Close2. These are all the questions we have. As a thank you, we'd like to send you a $100 e-gift card. Please provide an email address for the gift card. The gift card should arrive within 10 business days, please contact us if it has not!

[CLOSING] Thank you for taking the time to provide feedback about your experience as a home energy rater in the Northwest.

807 E Roy Street, Suite 301
Seattle, WA 98102

6/27/2024

NEEA Home Energy Rater Study: Interview Guide

INTRODUCTION

To support the NEEA Codes Team, the TRC project team will be conducting interviews home energy Providers for raters in the Northwest. The provider interviews will include at least one member of the WSU staff (until recently, the main rater provider in the states served by NEEA), and one member of staff from Earth Advantage, which now serves as a rater provider. The primary purpose of the interviews with the rater providers will be to gather information about their successes and challenges serving as a provider, how they provide quality assurance and oversight of raters, and how NEEA could potentially support them.

TOPIC GUIDE

Introduction

Thank you for taking the time to speak with us today. As a reminder, we are conducting this interview to help NEEA better understand the home energy rater market in the Northwest.

All of your responses will remain completely anonymous. Do we have your permission to record this interview? This is solely for note-taking purposes.

Section A: Company Practices

[SWITCH TO FUTURE TENSE FOR EARTH ADVANTAGE]

1. Could we start with some brief introductions, including your name and your role at your company?

2. What do you see as your main goals as a Provider in the Pacific Northwest over the next few years?

2a. **[FOR BER AND WSU]** What have been your main successes or accomplishments as a rater? What have been your most notable challenges?

[FOR THE BER]

3. With the passage of the new 45L tax credits for builders there has been a scramble to support the requirements of Energy Star and Zero Energy Ready certifications. What has been the challenge as a Provider in supporting your raters to get them certified to provide these ratings for builders? How can NEEA support this effort?

4. Do you provide training for the IECC/HERS Compliance Specialist designation? Do you see this as a future path for raters in the Pacific Northwest?

5. Since you are a national organization, do you have target geographic areas that you focus your services more on? How, in your opinion, does the NW differ from your other service areas?

[FOR ALL]

6. What kind of support, if any, do you think would be most useful for NEEA to provide to you or other Providers?

6A. Specifically, is there anything NEEA or another organization could do to encourage to conduct home energy ratings in rural areas?

[CLOSING] Thank you for taking the time to provide feedback about your experience as a home energy provider for raters in the Northwest.